Approved: 3-10-97
Date

MINUTES OF THE SENATE COMMITTEE ON FEDERAL AND STATE AFFAIRS.

The meeting was called to order by Senator Lana Oleen at 11:00 a.m. on February 10, 1997 in Room 313-S of the Capitol.

All members were present.

Committee staff present: Mary Galligan, Legislative Research Department
Theresa Kiernan, Revisor of Statutes
Midge Donohue, Committee Secretary

Conferees appearing before the committee:
Senator Janice L. Hardenburger
Dr. John R. Lott, Jr., John M. Olin Law and Economics Fellow, University of Chicago School of Law, Chicago, Illinois
Mrs. Judy Morrison, Safety for Women and Responsible Motherhood, Shawnee, Kansas
Mr. Herb Taylor, Shawnee, Kansas
Ms. Cindy Combs, Hutchinson, Kansas
The Honorable Larry E. Bengtson, District Judge, Junction City, Kansas
Mr. Jack Selbe, Lucas, Kansas
Ms. Marian Davis, Mainstream Coalition, Prairie Village, Kansas
Pastor Eldon Epp, Mennonite Church, Manhattan, Kansas
Ms. Nanette L. Kemmerly-Weber, Allen County Attorney, President, Kansas County and District Attorney Association, Iola, Kansas
Ms. Rebecca Hinkle for Diana Chambers, Shawnee, Kansas
Constable R. L. Skinner, Law Enforcement Alliance of America, Dallas County, Texas
Sheriff Howard L. Sellers, Aiken County, South Carolina
Mr. Larry Welch, Director of the Kansas Bureau of Investigation, Topeka, Kansas
Mr. Nick A. Tomasic, Wyandotte County District Attorney, Kansas City, Kansas
Dennis Domer, Associate Dean of the School of Architecture and Urban Design and Associate Professor of American Studies, University of Kansas, Lawrence, Kansas
Sheriff Michael S. Dailey, Wyandotte County, Kansas City, Kansas
Ms. Elizabeth C. Baehner, President, Regional Prevention Center Directors' Association, Prairie Village, Kansas
Ms. Sylvia Foulkes, Olathe, Kansas
Roger T. LaRue, Detective Sergeant, Olathe Police Department, Olathe, Kansas
Ms. Carolyn Wasson, Overland Park, Kansas
Mrs. Jan Exby, Safety for Women and Responsible Motherhood, Overland Park, Kansas
Mr. Don Moler, General Counsel, League of Kansas Municipalities, Topeka, Kansas
Mr. Terry Leatherman, Executive Director, Kansas Industrial Council, Kansas Chamber of Commerce and Industry, Topeka, Kansas
Mr. Paul Shelby, Assistant Judicial Administrator, Topeka, Kansas

Others attending: See attached list

Senator Oleen announced that hearings on **SB 21** and **SCR 1606** would be held before the Senate Federal and State Affairs Committee throughout the day. She said committee members had been briefed on both measures last week and information provided at that time by the Legislative Research Department would be made available to those interested. Senator Oleen explained that time allotted for testimony before the committee today would be divided equally between both sides. She noted that meeting space was limited

which would result in the hearings being moved and continued in Room 529-S during the afternoon from 1:00 p.m. until the Senate convenes at 2:30 p.m. and again upon adjournment of the Senate. She indicated a public address system would be available at Room 529-S to allow for the hearings to be followed by those who could not be seated in the room. Senator Oleen reminded the conferees of the time constraints, requesting that their written testimony be summarized and their remarks limited in order to allow for all who were scheduled to be heard.

Prior to opening the hearings, Senator Oleen had committee members introduce themselves.

SB 21: Licensure to carry certain concealed weapons
SCR 1606: Proposition to amend article 15 of the constitution of the state of Kansas by adding a new section, relating to certain weapons.

Senator Janice L. Hardenburger, sponsor of the bill, addressed the committee as a proponent of **SB 21** (Attachment #1) and thanked the chair for the opportunity to appear. Senator Hardenburger explained that the bill would require a strict clearance process, as well as a demonstration of proficiency with a weapon, and is not intended to harm but, rather, to defend and protect. She asked permission to include in the record a copy of a WIBW editorial aired January 11, 1997 (Attachment #2), and urged support of the measure.

Dr. John R. Lott, Jr., a John M. Olin Law and Economics Fellow at the University of Chicago School of Law, Chicago, Illinois, appeared as a proponent of **SB 21** (Attachment #3) and discussed a study (Attachment #4) he recently completed with a graduate student at the University of Chicago which he said showed that allowing concealed handguns deters violent crimes and produces no significant increase in accidental handgun deaths. He contended that the benefits of concealed handguns were not limited to just those who carry the weapons, and he took the position that, by virtue of the weapons being concealed, criminals are unable to tell whether the victim is armed before they strike, thus making it less attractive for criminals to commit crimes when they come into direct contact with victims.

Mrs. Judy Morrison of Shawnee, Kansas, presented testimony in support of **SB 21** (Attachment #5). She told of her fears when her late daughter, a cancer victim, had to make frequent trips for chemotherapy, often arriving home late at night or very early morning. Mrs. Morrison related that her daughter was left in tears after a frightening experience on one of the trips when a tire blew out and she was stranded without a way to defend herself. She presented two articles (Attachment #6) from her local newspaper regarding violent crimes in Shawnee Mission within three months and asked the committee to trust law abiding Kansans by allowing women like her daughter and herself the right to protect themselves and their children.

Mr. Herb Taylor, Chairman, Kansas Sportsman Alliance, Overland Park, appeared in support of **SB 21** and in opposition to **SCR 1606** (Attachment #7), telling the committee the latter seriously infringed on individual rights. He related his experience as an employee of a business in a light industrial park in Kansas City which had numerous instances of criminal activity attributed to gangs in the area and his responsibility in responding to alarms at the business in the middle of the night when he felt unprepared for what might await him. Mr. Taylor asked the committee to support and pass **SB 21** and establish a non-discretionary, self-protection law for law abiding citizens in Kansas.

Ms. Cindy Combs, Hutchinson, a certified firearms instructor, offered testimony in support of **SB 21** (Attachment #8). Her remarks centered around safety and the fear of being away from the safe company of others. She spoke of incidents involving her students which made them choose the responsibility of firearm ownership over the feeling of helplessness in the face of a violent crime. Mrs. Combs urged the committee to give law abiding citizens of Kansas a choice by voting in favor of the right to carry a concealed weapon.

The Honorable Larry E. Bengtson, District Judge, Junction City, spoke on behalf of the District Judges Association in opposition to **SB 21** (Attachment #9). Judge Bengtson said there is no objective research to conclusively support one position or the other in regard to reduction of crime or increased hazards to the public on the issue of carrying a concealed firearm. He noted that often good law abiding citizens become involved in confrontations that result in out of character behavior and, if a firearm is readily available, such actions could result in gunfire instead of other forms of resolution. Judge Bengtson asked the committee to carefully consider the consequences of having numerous people on the streets with firearms, noting the increased risk to law enforcement personnel, court clerks accepting divorce papers, prosecuting attorneys pursuing wrongdoers, judges entering orders dividing property or changing custody, and a citizen serving on a jury or simply driving down the street. He asked that courtrooms be included in the list of exempted locations where concealed weapons would be barred.

MINUTES OF THE SENATE FEDERAL & STATE AFFAIRS COMMITTEE, Room 313-S of the Statehouse, at 11:00 a.m. on February 10, 1997.

Mr. Jack Selbe, Lucas, Kansas, appeared in opposition to **SB 21** and **SCR 1606**, (Attachment #10) saying self defense is a natural right guaranteed by the Constitution and the resolution would take a guaranteed right from him and sell it back as a privilege. He contended that constitutional rights are not subject to argument and that the measures being considered by the committee today are unconstitutional.

Mrs. Marian Davis, Prairie Village, spoke on behalf of the MAINstream Coalition in opposition to **SB 21** and in support of **SCR 1606** (Attachment #11). Mrs. Davis asked the committee to support the efforts of law enforcement officials and not ignore their pleas when they say conceal and carry legislation will make their jobs more dangerous. She questioned the effectiveness of a weapon in a purse if a victim is attacked and pointed out that, under current law, a gun could be carried as long as it is not hidden away. Mrs. Davis noted also that more than 100 Americans are lost to gunfire each day, 16 of them children. She encouraged the committee to vote for **SCR 1606** because it would limit the carrying of concealed weapons to those with a professional need or a legitimate sporting use.

Pastor Eldon Epp, Mennonite Church, Manhattan, Kansas, provided testimony in opposition to **SB 21** (Attachment #12) and urged the committee to defeat the bill. He said he opposes the measure because he believes more guns equal more deaths and passage of **SB 21** would be a move toward return of the posse and indicate despair about our system.

Ms. Nanette L. Kimmerly-Weber, Allen County Attorney, Iola, appeared in opposition to **SB 21** (Attachment #13) on behalf of Kansas County and District Attorneys Association. She testified that it is dangerous to believe that more guns on the street, especially concealed guns, will make society safer. In her remarks, she called attention to the burden that would be placed on the Kansas Bureau of Investigation in conducting the criminal history checks required by the bill, saying the KBI is not fully computerized nor adequately staffed at the present time to meet that requirement. Ms. Kimmerly-Weber pointed out language in the bill that would present problems if passed and concluded her remarks by saying it is a dangerous piece of legislation which would not make citizens safer but place more burdens on an already burdened and hardworking state agency.

The morning session of the hearing on **SB 21** and **SCR 1606** adjourned at 12:15 p.m. with Senator Oleen advising that the hearing would continue at 1:00 p.m. in Room 529-S at which time Attorney General's Opinion No. 97-17 (Attachment #14) dealing with concealed firearms and the fiscal note on **SB 21** (Attachment #15) would be available.

The afternoon session of the hearing on **SB 21** and **SCR 1606** reconvened at 1:05 p.m. in Room 529-S of the Capitol.

Ms. Becky Hinkle, Shawnee, offered testimony on behalf of Diana Chambers, Shawnee, in opposition to **SCR 1606** (Attachment #16) Ms. Chambers opposes the measure because she believes it would limit the rights of law abiding citizens to defend themselves. Her testimony cited the recent study by Dr. John Lott at the University of Chicago (Attachment #4) which indicated that states that allow law abiding citizens to carry a concealed firearm have a lower overall violent crime rate than those that do not permit concealed carry. She related the vulnerability Ms. Chambers feels when delivering papers in the early hours of the morning and said that law abiding Kansans should have the right to carry a concealed firearm, if they desire, to protect themselves and their families. Ms. Chambers believes a popular vote on the constitutional right to keep and bear arms is wrong.

Constable R. L. Skinner, representing the Law Enforcement Alliance of America, Dallas County, Texas, offered testimony in support of **SB 21** (Attachment #17). Constable Skinner discussed the Texas concealed carry law which went into effect January 1, 1996, and provided information concerning the experience of other states that have passed similar legislation. He pointed out that Kansas is one of seven states that does not allow its citizens to carry concealed weapons and urged the committee to support the right of law abiding Kansans to defend themselves and their families outside their homes.

Senator Oleen opened the floor to questions because of Constable Skinner's experience with the Texas law which is similar to **SB 21**.

She inquired if the provisions for background checks in **SB 21** were similar to those contained in the Texas law, and Constable Skinner replied they were basically the same and had worked in Texas. He said the Department of Public Safety (DPS) had set up training for instructors which he did not see the need for. In responding to a question about the agency responsible for background checks in Texas, he told the committee the Department of Public Safety checked the juvenile and adult history of applicants for licenses from information filed with the initial application, and that those checks were made by a unit made up of DPS

personnel and not the Texas Rangers. When asked about administrative costs involved, Constable Skinner estimated it would cost approximately $95 per check in Texas.

Senator Harrington inquired about the number of permits requested in Texas. Constable Skinner advised Texas had approximately 300,000 individuals request applications, with approximately 125,000 permits being issued. He projected within the next 12 months there would be 170,000 to 180,000 permit holders in Texas.

Constable Skinner indicated that, initially, he had not been a supporter of the right to carry and Senator Harrington asked what had changed his mind in this regard. He replied that problems with parolees was one reason, along with the changing times, and that he trusted the judgment of his constituents. Constable Skinner pointed out that a lot of people with permits were not carrying a weapon, but he believes they should have the right to make that choice.

Senator Bleeker questioned Constable Skinner about the waiting period involved. He responded that Kansas is proposing a 120 day waiting period which is longer than the 60 days required in Texas.

Senator Schraad inquired if the Texas law had local preemption, and Constable Skinner acknowledged that it did, but that he did not believe preemption was provided in **SB 21**.

Senator Gooch asked if there is more enforcement in Texas on people who do not have a permit or if they were not quite as strict with poor individuals who cannot afford a permit. Constable Skinner responded that the officer has individual discretion in that regard. Senator Gooch then inquired how it was determined if an applicant used drugs if a drug test was not administered. Constable Skinner replied that the average person is the holder of a permit and is judged on past performance; that it was a situation of trusting people who pay taxes.

When asked about the Law Enforcement Alliance of America and its purpose, Constable Skinner told the committee it was established several years ago as a non-profit foundation made up of crime victims and law enforcement officials.

Sheriff Howard L. Sellers, Aiken County, South Carolina, appeared before the committee as a proponent to **SB 21** (Attachment #18) and provided background on his professional career as a professor of psychology at St. John's University in Minnesota and as a sworn law enforcement officer at the federal, state and local level. Sheriff Sellers said there were three major issues related to this legislation which prompted him to support this legislation: 1) the factual reduction of criminal victimization in violent crime, 2) the potential misuse of licensed concealed weapons and 3) the right of honest citizens to protect themselves. He told the committee he believes that a well written concealed carry law is in the interest of all citizens; that it would reduce predatory crime, will respect the constitutional basis of gun use in self-protection, and demonstrate respect for the ability, judgment and personal and property rights of citizens who chose to exercise them. Sheriff Sellers urged the committee to favorably report this legislation and tell their constituents that they respect their ability to exercise constraint and sound judgment.

Senator Gooch inquired about the total cost for obtaining a permit in South Carolina, to which Sheriff Sellers replied that it costs $50 for a three-year permit; the state absorbs administrative costs, and proficiency training normally costs between $50 to $80.

Mr. Larry Welch, Director of the Kansas Bureau of Investigation, Topeka, appeared as neither a proponent nor opponent to **SB 21** and **SCR 1606**, but rather to address the fiscal impact the legislation, if passed, would have on the Kansas Bureau of Investigation (Attachment #19). He reported that, as **SB 21** stands now, it would have an awesome fiscal impact on his agency and it would be impossible for the KBI to comply with all requirements. Mr. Welch explained the differences in composition of the Texas Department of Public Safety and the Bureau, saying in Texas, the DPS is comparable to the Kansas Highway Patrol, a much larger agency than the KBI and, yet, Texas added thirty-nine new permanent positions to handle the background checks for firearm permits. Mr. Welch told the committee the KBI would need to add forty-two positions and this was one of the reasons this legislation would have a terrific fiscal impact on the Bureau. He stated that, as the KBI is constructed today, it could not adequately carry out the functions required of it by this legislation and recommended that, if passed, implementation be delayed until July 1, 1998.

In responding to questions from the committee about the background investigations that would be required to obtain a permit, Mr. Welch replied that he did not have a great level of confidence in the accuracy of information obtained on someone who recently establishes residence within the state, noting the difficulty in obtaining out-of-state information. When questioned how other states are able to cover administrative costs

associated with issuing permits, Mr. Welch said that Florida requires no background investigation and Oklahoma relies on its sheriffs to conduct local records check only, and even then Oklahoma added twenty employees.

Mr. Nick A. Tomasic, Wyandotte County District Attorney, Kansas City, appeared in opposition to **SB 21** (Attachment #20). He pointed out in response to a question posed earlier in the hearings that, under home rule authority, cities would have the right to exempt themselves under **SB 21,** unless legislative intent is to preempt local legislation. Mr. Tomasic went on to say that in his thirty years as an Assistant County Attorney and District Attorney he has examined thousands of cases involving the use of handguns by both trained law enforcement personnel and non-trained individuals. Although these persons met all the qualifications required to carry a concealed handgun, he said they were charged and convicted of felonies. It was his belief that these killings would not have occurred if the gun had not been easily accessible.

He discussed the liability aspect, saying he could foresee lawsuits being filed alleging improper training when a licensee does not follow the proper procedures in discharging a firearm and questioned how it could be determined if the applicant for a license is chemical dependant if no drug test is administered, or if the applicant is of sound mind if no psychiatric exam is given.

Mr. Tomasic took issue with the section of **SB 21** that would make it a crime to intentionally fail to conceal the handgun and took exception with judicial officers receiving special consideration which appeared in numerous locations in the bill. He also questioned the legal ramifications if citizens used a firearm to protect property rather than life.

The meeting recessed at 2:25 p.m. to reconvene upon fifteen minutes following adjournment of the Senate.

The meeting reconvened at 3:05 p.m. in Room 529-S.

Dennis Domer, Associate Dean of the School of Architecture and Urban Design and Associate Professor of American Studies at the University of Kansas, Lawrence, appeared before the committee to express his opposition to **SB 21** (Attachment #21). Dean Domer related his childhood and early adult years, during which time he was in the military and considered an expert rifleman. His last twenty-one years have been spent in the classroom at the University of Kansas, and he said he shudders to think of concealed weapons, or weapons of any kind, in lecture halls or any place on campus. Dean Domer said he believes weapons in the classroom would be against everything that is being taught at the University and would suggest that we have given up on the fundamental task to demonstrate the values of a humane and democratic society to every new generation of students. He pointed out that emotions run high among young people under pressure when stress and fatigue are reality and guns do not fit into the equation at any educational institution. It is his belief that most people with concealed weapons have just enough training to be very dangerous to themselves and other innocent people.

Michael S. Dailey, Sheriff of Wyandotte County, Kansas City, appeared before the committee as an opponent to **SB 21** (Attachment #22). Sheriff Dailey opposed the bill as written because he said it would preempt a city from enforcing concealed carry ordinances now on their books. He said opposes the bill also because it is not properly funded and he believes it would place a greater burden on the Kansas Bureau of Investigation and county sheriffs. Sheriff Dailey supported Director Welch's recommendation that, if passed, implementation of the bill be delayed a year.

Ms. Elizabeth C. Baehner, Prairie Village, Kansas, a licensed master of social work and a prevention professional, appeared as an opponent to **SB 21** (Attachment #23). Ms. Baehner directs the Regional Prevention Center serving Johnson, Leavenworth and Miami Counties and currently serves as president of the Regional Prevention Center Directors' Association. She expressed strong opposition to passage of a concealed handgun bill, with or without public debate; however, she said the reality that two bills are under consideration led her to urge a public debate and vote on the issue.

Ms. Baehner's opposition was based on research into risk factors linked to increases in substance abuse, delinquency and violence. Her testimony centered around statistics involving gunfire resulting in the death of the youth of the country. She said experts contend the primary cause for the proliferation of violence may be the proliferation of handguns and noted two primary risk factors for violence and delinquency are the availability of firearms and community laws favorable towards drug use, firearms and crime.

Ms. Sylvia Foulkes, Olathe, Kansas, a member of Safety for Women and Responsible Motherhood, spoke in support of **SB 21** (Attachment #24). Ms. Foulkes related an incident eleven years ago in which she was the

victim of a random act of violence. Although her assailant was arrested and sentenced to fifteen years in prison, he will be eligible for parole soon and she stated she is frightened. She said that living through this traumatic experience made her realize that Kansans need the right to defend themselves and their families. Ms. Foulkes urged the committee's support of **SB 21**.

Detective Sergeant Roger T. LaRue, Olathe Police Department, appeared as a proponent to **SB 21** (Attachment #25), reflecting his own personal views and not those of his Department. He related his background in police work and advised that he is currently the supervisor of the Crimes Against Persons Unit. Detective Sergeant LaRue said his purpose in testifying before the committee was to assure them that law enforcement officers do support the passage of right to carry legislation. As a law enforcement officer, he said he had no fear of law abiding persons having the ability to choose to carry a firearm for protection outside their homes. He asked the committee to give the honest law abiding citizens in Kansas the ability to defend themselves, saying this legislation would make everyone safer.

Ms. Carolyn Wasson, Overland Park, Kansas, a realtor, spoke in support of **SB 21** (Attachment #26), relating her personal fears and concerns for safety that directly relate to the fact that she is a woman and a realtor. She noted several incidents involving realtors who she said were unable to defend themselves because there is no provision for concealed carry in Kansas, and she urged the committee to enact legislation that would allow properly trained individuals the ability to carry a concealed firearm to defend themselves.

Mrs. Jan Exby, Overland Park, Kansas, a member of Safety for Women and Responsible Motherhood, addressed the committee to express her opposition to **SCR 1606** (Attachment #27). She spoke not only in her own behalf but on behalf of a national organization called Safety for Women and Responsible Motherhood, an organization that believes it is essential for women to have the options and means to protect themselves and their families. Mrs. Exby said that legislation should protect rights but **SCR 1606** is designed to take away the rights of self defense through a constitutional amendment. She related a personal experience during which she and a friend were robbed and sexually assaulted. Mrs. Exby told the committee that, although she would have been justified, she had no legal way to protect herself or her friend at the time. She contended that criminals have no regard for laws and, restricting the ability of peaceful citizens to defend themselves makes them more attractive targets. Mrs. Exby urged the committee to support legislation that will provide law abiding citizens of Kansas the ability for self defense outside their homes.

Mr. Dan Moler, General Counsel, League of Kansas Municipalities, Topeka, appeared as neither a proponent nor opponent but to comment on **SB 21** (Attachment #28). He expressed the League's appreciation for the fact that **SB 21** does not include a preemption provision restricting the ability of cities to legislate in this area. Mr. Moler stated he could not overstate how strongly the League of Kansas Municipalities opposes any state preemption of local laws regulating the use of concealed weapons.

Mr. Moler explained that, despite the League's policy statement in general opposition to allowing concealed carry, it is not specifically opposing **SB 21**, but it is concerned about the preemption of local authority in this area. As a result, the League suggested adding an additional section to **SB 21** stating that no portion of the act shall be construed to restrict the constitutional home rule authority of cities in Kansas to regulate the carrying, possession or use of concealed weapons within the boundaries of the city.

In regard to **SCR 1606**, Mr. Moler advised that the League is generally supportive of allowing the citizens of Kansas the opportunity to vote on this issue because it represents a viable alternative for public input and could theoretically settle the issue for many years to come.

Mr. Terry Leatherman, Executive Director, Kansas Industrial Council, Kansas Chamber of Commerce and Industry, Topeka, appeared before the committee as neither a proponent nor opponent to **SB 21** (Attachment #29). He explained a concern members of the Kansas Chapter have regarding the issue. He told the committee that a KCCI survey a year ago asked two questions concerning concealed weapons. The first, he said, was whether members supported legislation requiring officials to issue a concealed weapons permit to any law abiding citizen who had successfully completed a firearms safety course. He stated that fifty-seven percent opposed the idea. The second question he said dealt with whether a business owner should retain the right to determine work place policies that could preclude employees and customers from carrying a concealed weapon onto the business premises during hours of employment. Mr. Leatherman advised the response was 96% in support. He urged the committee to consider adding a provision to **SB 21** to strengthen the act so that it does not prevent or otherwise limit the right of a public or private employer to limiting, restricting or prohibiting in any manner persons who are licensed under this act from carrying a concealed handgun on the premises of the business or during any period of employment. Mr. Leatherman told the committee that the Kansas Chapter of the National Federation of Independent Business and the Kansas Pest Control Association

joined KCCI in their request to amend **SB 21** to make clear a business owner's rights regarding concealed weapons.

Mr. Paul Shelby, Assistant Judicial Administrator, Office of the Judicial Administrator, Topeka, appeared in neither opposition nor support of **SB 21** (Attachment #30) but to offer an amendment to the bill to prohibit the licensee from carrying a concealed firearm in the Kansas Judicial Center, any courthouse, courtroom or court office or any building in which a court proceeding is taking place. Mr Shelby said the amendment would broaden the prohibition of KSA 21-4218 which prohibits carrying a firearm within the Judicial Center and most county courthouses, and he urged favorable consideration of the amendment.

The chairman thanked the committee for receiving five hours of testimony today and advised that the hearings would continue tomorrow for one hour and, from 11:00 a.m to 12:30, on February 19 to accommodate conferees who had notified her of their interest in appearing for or against the bills. Senator Oleen told those who did not have a chance to testify that she would remain to meet them and get their names to make certain they had the opportunity to offer written or oral testimony.

The meeting adjourned at 4:30 p.m. The next meeting is scheduled for February 11, 1997.

SENATE FEDERAL & STATE AFFAIRS COMMITTEE
GUEST LIST

DATE: 2-10-97

NAME	REPRESENTING
Howard L. Sellers	Law Enforcement Alliance of America
HERB TAYLOR	Kansas Sportsmen's Alliance
JANICE TAYLOR	SWARM
Cindy Combs	Kansas citizen
Sylvia Faulkes	Kansas citizen
Judy Morrison	Shawnee Mission SWARM
Scott G. Hattrup	Self, Director of KS Second Amendment Society
Jan Eby	SWARM - and as citizen
Jim Eby	SWARM - AND CITIZEN
Bruce Dimmitt	Independent
Linda Lee Stewart	SWARM - and as citizen
Rebecca Tinkle	Kansas Citizen
Bill Kamm	Kansas Citizen
Bill Freeman	Kansas Sportsmans Alliance
Bob Taylor	The PSI Companies
James Morrison	Kansas Citizen
R.L. SKINNER	LAW ENFOR. SELLS AN. OF AMERICA
John Bailey	myself
Jim Thompson	Self

SENATE FEDERAL & STATE AFFAIRS COMMITTEE
GUEST LIST

DATE: 2-10-97

NAME	REPRESENTING
HARRY L. MOBERLY, JR	MYSELF
Roger Barnes	Myself
Chuck Oldaker	myself
ALLAN HERREL	SELF
Roger T. LaRue	Swarm-
Leland Prothe	my self
Tom PLUMBERG	MYSELF
John Ely	Self.
Sheila Frahm	KAEC
Bonnie Tuttle	Sen. Hardenburger
Hershel Cox	C.A.
Mr. & Mrs. Richard T Beckett	Our family
Philip E Hotzel	Self & Family
Nanette Kemmerly-Weber	KCDAA
Rev Lynn Hargrow	St Matthews CME Church
Carolyn T. Tibbs	legislative aide
Ashley Sherard	O.P. Chamber of Commerce
Kelly Kultala	City of Overland Park
Dan Moore	League of KS Municipalities

SENATE FEDERAL & STATE AFFAIRS COMMITTEE
GUEST LIST

DATE: 2-10-97

NAME	REPRESENTING
Jim Brien	Self
Mark Davis	Self
Jill Bridges	DOB
Jon Holden	Self
John F. Bradley	"
William C Triggs	Self
Pam Hubert	Self
Jane L. Brown	VVA #604 & Self
Donna Wyatt	VVA #604 - Self
James Boyd	VVA 604 - Self
Robert Hendrix	VVA 604 - Self
Paul Degener	Self
Chuck Stones	KBA
Cheryll Johnson	self
Dan K. Stiles	Self
Bill Rice	KPOA
Tom Smith	Self
ROBERT H. BRANDENBURG	SELF

SENATE FEDERAL & STATE AFFAIRS COMMITTEE
GUEST LIST

DATE: 2-10-97

NAME	REPRESENTING
D. Eugene Lichty	Myself
R. Ligon	AP
Kim Gulley	League of KS Municipalities
Tom Plumberg	Myself
Jon Holden	Self
HARRY L. MOBERLY JR	MYSELF
Jim Thompson	Kansas Sportsmen
ROBERT V. BRANDENBURG	SELF
Ashley Sherard	O.P. Chamber of Commerce

SENATE FEDERAL & STATE AFFAIRS COMMITTEE
GUEST LIST

DATE: 2-10-97

NAME	REPRESENTING
Steve Painter	Wichita Eagle
John Lott	University of Chicago
Bill Stewart	self
Jason Pitsenberger	Brad Smoot
Ken VanDoren	self (P.D. K.C.K.)
Paul Shelby	OJA
Marian Davis	Mainstream Coalition
Patricia M. Ackerman	" "
Larry Bengtson	Ks District Judges Assoc
R. Lipsey	AP
Cleta Renyer	Right to Life of Ks.
Laura Mallard	Right to Life of Kansas
Lee Crites	self. Jack Selbe
Edward C. Davidson	self
Connie Yust	self
Bev Joy	self
Diana Chambers	self
Gene Chambers	self
Merle Hill	KS Assn Com. Colleges

SENATE FEDERAL & STATE AFFAIRS COMMITTEE
GUEST LIST

DATE: 2-10-97

NAME	REPRESENTING
Kim Gulley	League of KS Municipalities

SENATE FEDERAL & STATE AFFAIRS COMMITTEE
GUEST LIST

DATE: 2-10-97

NAME	REPRESENTING
Dan R. Ricketts	Self
Carl E. Christensen	Self
Roger A Sowell	Self
Clyde L Sanders	Governors Office

SENATE FEDERAL & STATE AFFAIRS COMMITTEE
GUEST LIST

DATE: 2-10-97

NAME	REPRESENTING
Linda Lee Stewart	SWARM + CITIZEN
Rebecca Hinkle	Kansas Citizen
Charles Dexson	KBI
NICK A. TOMASIC	WY CO D.A.
Mike Bailey	Wy Co Sheriff
Larry Welch	KBI
R.L. SKINNER	LAW ENFOR. ASSISTANCE OFF.
Wade Singer	KBI
Marsha Lappin	KBI
Helen Stephens	KPOA/KSA

STATE OF KANSAS

JANICE L. HARDENBURGER
SENATOR, 21ST DISTRICT
CLAY, CLOUD, MARSHALL
NEMAHA, WASHINGTON, RILEY
AND A PORTION OF
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TOPEKA

SENATE CHAMBER

COMMITTEE ASSIGNMENTS

CHAIRMAN: ELECTIONS, CONGRESSIONAL AND LEGISLATIVE APPORTIONMENT, AND GOVERNMENTAL STANDARDS

MEMBER: ENERGY AND NATURAL RESOURCES
PUBLIC HEALTH AND WELFARE
ASSESSMENT AND TAXATION
JOINT COMMITTEE ON ADMINISTRATIVE RULES & REGULATIONS

February 10, 1997

SENATE BILL 21

Thank you for the opportunity to appear before your committee today, and thank you, Madam Chairman, for holding hearings on Senate Bill 21, the right to carry bill. In a recent editorial, WIBW Radio quoted Thomas Jefferson, who wrote, "Laws that forbid the carrying of arms...disarm only those who are neither inclined nor determined to commit crimes...Such laws make things worse for the assaulted and better for the assailants; they serve rather to encourage than to prevent homicides, for an unarmed man may be attacked with greater confidence than an armed man." Thomas Jefferson spoke in behalf of men. I now speak in behalf of all citizens. This bill, requiring a strict clearance process and a demonstration of proficiency with a weapon, is not intended to harm. Its intent is to defend and protect. I ask for your consideration and support of this measure. Also, I request permission to submit a copy of the WIBW Editorial which was aired on January 11, 1997. Thank you very much.

Sen. Federal & State Affairs Comm
Date: 2-10-97
Attachment: #1

580 RADIO WIBW
NEWS • TALK • SPORTS

CORPORATE-THINK & CONCEALED WEAPONS

Al Lobeck, General Manager
Aired 1/11-13/97

The issue of concealed weapons in the state of Kansas is bound to be a major issue in the upcoming Legislative session. At least, the daily Topeka paper certainly believes it will be. Twice within the last month - first, on December 16th, and then again on January 5th, they have addressed their lead editorial to that subject. The paper is opposed to the passage of a "right to carry" law in Kansas. Since that paper and this radio station are owned by the same company, you might expect us to agree with their stand on this important issue. You would expect our acquiescence in error.

The paper notes that, according to polls they believe, a majority of Americans do not favor "right to carry" laws. The paper does not note that 30 states have enacted "right to carry" laws. That's up from only seven states just a decade ago. For such an unpopular law, it is certainly passing in other states!

The paper states that guns are not a solution to crime. Well, it's hard to disagree. No one, single law that you could name is THE solution to crime. What the paper does not state is that, when you compare rates of crime in states that trust their citizens against the states that refuse to grant the right of self-protection to its people, the crime rates are lower in those states where the "right to carry" laws have passed. No, "right to carry" laws are not THE solution to crime. However, those laws have been shown to reduce crime - which we don't believe to be a bad thing.

Florida enacted a "right to carry" law in 1987. One Florida newspaper, editorializing against the enactment, opined: "[A] pistol-packing citizenry will mean itchier trigger-fingers....South Florida's climate of smoldering fear would flash like napalm when every stranger totes a piece, and every mental snap in traffic could lead to the crack of gunfire." What has happened since 1987 in Florida? The state's firearm homicide rate has decreased 34% , compared to a nationwide increase of 28%. Florida's handgun homicide rate has decreased 38% , while the nationwide rate has risen 43%.

The paper claims that Americans do not subscribe to the National Rifle Association's interpretation of the Second Amendment to the U.S. Constitution. That's fine. The N.R.A. isn't the point, nor is Handgun Control, Inc., for that matter. The point is the Second Amendment, and what it was meant to be. Forget the N.R.A. - but listen to the minds that conceived this country.

Samuel Adams: "The...Constitution [shall] be never construed to authorize Congress to infringe the just liberty of the press, or the rights of conscience; or to prevent the people of the United States, who are peaceable citizens, from keeping their own arms."

Again, forget the N.R.A. - they could disappear tomorrow, but our nation's Founders still said these things.

George Mason: "[W]hen the resolution of enslaving America was formed in Great Britain, the British Parliament was advised by an artful man, who was governor of Pennsylvania, to disarm the people; that it was the best and most effectual way to enslave them; but that they should not do it openly, but weaken them, and let them sink gradually."

This is not some "gun-nut", afraid that any gun law would be the start of more and more restrictive laws. This is one of the Founders of our country.

Thomas Jefferson wrote, "Laws that forbid the carrying of arms...disarm only those who are neither inclined nor determined to commit crimes...Such laws make things worse for the assaulted and better for the assailants; they serve rather to encourage than to prevent homicides, for an unarmed man may be attacked with greater confidence than an armed man."

We don't subscribe to the N.R.A.'s interpretation of the Second Amendment. We subscribe to what our nation's Founders meant when they wrote the Bill of Rights.

Yes, the daily Topeka paper and AM580 WIBW are owned by the same people. Some of you probably thought, "Oh, boy - the monolithic corporate voice will drone a single note." Well, we don't disagree on every issue, but we will certainly speak out when the paper takes what we believe to be the wrong stance - as they have on this issue.

Sen. Federal & State Affairs Comm.
Date: 2-10-97
Attachment: #2

Box 1818 • Topeka, Kansas 66601-1818 • (913) 272-3456 • FAX (913) 272-3536

Testimony to be Presented to the Kansas State Senate Committee on State and Federal Affairs Committee:

Do Concealed Handgun Laws Save Lives?

John R. Lott, Jr.*

Will allowing citizens to carry concealed handguns deter violent crimes? Or, will they simply make it more likely that otherwise law abiding citizens will harm each other? 31 states have taken the gamble that concealed handguns will deter crime and have guaranteed their citizens the right to carry concealed handguns if they do not have a criminal record or histories of significant mental illness. So what have the results been?

Using the FBI's crime rate data for all 3054 U.S. counties by year from 1977 to 1992, a study that I have recently completed with David Mustard, a graduate student at the University of Chicago, finds that allowing concealed handguns deters violent crimes and produces no significant increase in accidental handgun deaths. Adopting these so-called "shall issue" laws produces at least a:

— 8 percent drop in murders

— 7 percent drop in aggravated assaults

— 5 percent drop in rapes, and

— 3 percent drop in robberies.

Not all crimes categories fell, however. Some evidence suggests small increases in larceny and auto theft, and it implies that when potential victims are able to arm themselves, some criminals switch away from directly attacking victims and substitute into crimes like stealing from coin operated vending machines where the probability of direct contact with victims is small.

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The data also provided other surprises. While the support for the strictest gun control laws has usually been strongest in large cities, the largest drops in violent crimes occurred in the highest population and most urban counties with the highest crime rates. For example, adopting concealed handgun laws in counties with populations over 200,000 produces an average drop in murder rates of over 13 percent. The half of the counties with the highest murder rates experienced over a 10 percent drop in murders.

The benefits of concealed handguns are also not limited to just those who carry the weapons. By the very nature of these guns being concealed, criminals are unable to tell whether the victim is armed before they strike, thus making it less attractive for criminals to commit crimes where they come into direct contact with victims. Citizens who have no intention of ever carrying a concealed handgun in a sense "free ride" off the crime fighting efforts of their fellow citizens.

Concealed handguns laws also appear to be the great equalizer between the sexes. Criminals have a strong tendenacy to attack the weakest targets (e.g., women and the elderly). While allowing either men or women to carry concealed handguns reduces the murder rate, the results are particularly dramatic for women. The findings imply that for each additional woman carrying a concealed handgun the murder rate for women falls by about 3 to 4 times more than having an additional man carrying a concealed handgun lowers the murder rate for men. Possibly this arises since providing a woman with a gun has a much bigger affect on her ability to defend herself against a crime than providing a handgun to a man.

The number of accidental handgun deaths each year is less than 200. Our estimates imply that if the states without "shall issue" laws adopted them, the increase in accidental handgun deaths would be at most 9 more deaths per year, but in none of the cases are the results statistically significant and this increase is quite small compared to the over 1,500 fewer murders that would be produced.

So how much confidence do we have in these results? The almost 50,000 observations in this data set allow us to control for a whole range of other factors that have never been accounted for in any previous crime study. For example, do higher arrest or conviction rates lower the crime rate? What about longer prison sentences? What about changes in other handgun laws such as those imposing a penalty for using a gun in a commission of a crime or the well know waiting periods? Is it possible that income, poverty, unemployment, or demographic changes play a role? While all these variables do play a role in determining the level of crime, ours is the first gun study to control for changing criminal penalties, and only a few allow for even some of these other considerations.

In contrast with our work, the largest previous study examined 170 cities within one single year. A 1995 study by three criminologists at the University of Maryland, which is the only study indicating that concealed handgun laws increase crime, picked only a total of five counties from three states with no explanation on how those five counties were chosen. Nor was there any explanation for why one would only be concerned with five counties when these are statewide laws. This study controlled for no other possible causes of changes in crime, and found that murders by guns rose in three counties, stayed constant in one, and fell in another.

Preventing law-abiding citizens from carrying handguns does not end violence, but primarly makes them more vulnerable to being attacked. The very large size and strength of our results should at least give pause to those who oppose concealed handguns. Chances to relax regulations that potentially offer at least 8 percent drops in murder rates are difficult to ignore.

Crime, Deterrence, and Right-to-Carry Concealed Handguns

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Crime, Deterrence, and Right-to-Carry Concealed Handguns

Abstract

Using cross-sectional time-series data for U.S. counties from 1977 to 1992, we find that allowing citizens to carry concealed weapons deters violent crimes and it appears to produce no increase in accidental deaths. If those states which did not have right-to-carry concealed gun provisions had adopted them in 1992, approximately 1,570 murders; 4,177 rapes; and over 60,000 aggravate assaults would have been avoided yearly. On the other hand, consistent with the notion of criminals responding to incentives, we find criminals substituting into property crimes involving stealth and where the probabilities of contact between the criminal and the victim are minimal. The largest population counties where the deterrence effect on violent crimes is greatest are where the substitution effect into property crimes is highest. Concealed handguns also have their greatest deterrent effect in the highest crime counties. Higher arrest and conviction rates consistently and dramatically reduce the crime rate. Consistent with other recent work (Lott, 1992b), the results imply that increasing the arrest rate, independent of the probability of eventual conviction, imposes a significant penalty on criminals. The estimated annual gain from allowing concealed handguns is at least $6.214 billion.

I. Introduction

Will allowing concealed handguns make it likely that otherwise law abiding citizens will harm each other? Or, will the threat of citizens carrying weapons primarily deter criminals? To some, the logic is fairly straightforward. Philip Cook argues that, "If you introduce a gun into a violent encounter, it increases the chance that someone will die."[1] A large number of murders may arise from unintentional fits of rage that are quickly regretted, and simply keeping guns out of people's reach would prevent deaths.[2] Using the National Crime Victimization Survey (NCVS), Cook (1991, p. 56, fn. 4) further states that each year there are "only" 80,000 to 82,000 defensive uses of guns during assaults, robberies, and household burglaries.[3] By contrast, other surveys imply that private firearms may be used in self-defense up to two and a half million times each year, with 400,000 of these defenders believing that using the gun "almost certainly" saved a life (Kleck and Gertz, 1995, pp. 153, 180, and 182-3).[4] With total firearm deaths from homicides and accidents equaling 19,187 in 1991 (Statistical Abstract of the United States, 1995), the Kleck and Gertz numbers, even if wrong by a very large factor, suggest that defensive gun use on net saved lives.

While cases like the 1992 incident where a Japanese student was shot on his way to a Halloween party in Louisiana make international headlines (Japan Economic Newswire, May 23, 1993 and Sharn, USA TODAY, September 9, 1993), they are rare. In another highly publicized case, a Dallas resident recently became the only Texas resident so far charged with using a permitted concealed weapon in a fatal shooting (Potok, March 22, 1996, p. 3A).[5] Yet, in neither case was the shooting found to be unlawful.[6]

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[1] Editorial, The Cincinnati Enquirer, January 23, 1996, Pg. A8.

[2] See Cook (1982) and Zimring (1971) for these arguments.

[3] It is very easy to find people arguing that concealed handguns will have no deterrence effect. Uviller (1996, p. 95) writes that, "More handguns lawfully in civilian hands will not reduce deaths froom bullets and cannot stop the predators from enforcing their criminal demands and expressing their lethal purposes with the most effective tool they can get their hands on."

[4] Kleck and Gertz's survey (1995, pp. 182-3) of 10 other nationwide polls implies a range of 764,036 to 3,609,682 defensive uses of guns per year. Recent evidence confirms other numbers from Kleck and Gertz's (1995) study. For example, Annest et. al. (1995) estimate that 99,025 people sought medical treatment for nonfatal firearm woundings. When one considers that many criminals will not seek treatment for wounds and that not all wounds require medical treatment, Kleck and Gertz's estimates of 200,000 woundings seems somewhat plausible, though even Kleck and Gertz believe that this is undoubtedly too high given the very high level of marksmanship that this implies by those shooting the guns. Yet, even if the true number of times that criminals are wounded is much smaller, it still implies that criminals face a very real expected cost from attacking armed civilians. (See also Southwick (1995) for a discussion on the defensive uses of guns.)

[5] Dawn Lewis of Texans Against Gun Violence provided a typical reaction from gun control advocates to the grand jury decision not to charge Gordon Hale. She said, "We are appalled. This law is doing what we expected, causing senseless death" (Potok, March 22, 1996, p. 3A). For a more recent evaluation of the Texas experience see Fort Worth Star-Telegram (July 16, 1996). By the end of June 1996, more than 82,000 permits had been issued in Texas.

The rarity of these incidents is reflected in Florida statistics: 221,443 licenses were issued between October 1, 1987 and April 30, 1994, but only 18 crimes involving firearms were committed by those with licenses (Cramer and Kopel, 1995, p. 691).[7] While a statewide breakdown on the nature of those crimes is not available, Dade county records indicate that four crimes involving a permitted handgun took place there between September 1987 and August 1992 and none of those cases resulted in injury (pp. 691-2).

The potential defensive nature of guns is indicated by the different rates of so-called "hot burglaries," where residents are at home when the criminals strike (e.g., Kopel, 1992, p. 155 and Lott, 1994). Almost half the burglaries in Canada and Britain, which have tough gun control laws, are "hot burglaries." By contrast, the U.S., with laxer restrictions, has a "hot burglary" rate of only 13 percent. Consistent with this, surveys of convicted felons in America reveals that they are much more worried about armed victims than they are about running into the police. This fear of potentially armed victims causes American burglars to spend more time than their foreign counterparts "casing" a house to ensure that nobody is home. Felons frequently comment in these interviews that they avoid late-night burglaries because "that's the way to get shot."[8]

The case for concealed handgun use is similar. The use of concealled handguns by some law abiding citizens may create a positive externality for others. By the very nature of these guns being concealed, criminals are unable to tell whether the victim is armed before they strike, thus raising criminals' expected costs for committing many types of crimes.

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[6] In fact, police accidentally killed 330 innocent individuals in 1993, compared to the mere 30 innocent people accidentally killed by private citizens who mistakenly believed the victim was an intruder (Lott, 1994).

[7] Similarly, Multnomah County, Oregon issued 11,140 permits over the period January 1990 to October 1994 and experienced 5 permit holders being involved in shootings, 3 of which were considered justified by Grand juries. Out of the other two cases, one was fired in a domestic dispute and the other was an accident that occurred while an assult rifle was being unloaded (Barnhart, 1994).

[8] Wright and Rossi (1986, p. 151) interviewed felony prisoners in ten state correctional systems and found that 56 percent said that criminals would not attack a potential victim that was known to be armed. They also found evidence that criminals in those states with the highest levels of civilian gun ownership worried the most about armed victims.

Examples of stories where people successfully defend themselves from burglaries with guns are quite common (e.g., see "Burglar Puts 92-year-old in the Gun Closet and is Shot," New York Times, September 7, 1995, p. A16). Will (1993) discusses more generally the benefits produced from an armed citizenry.

In his paper on airplane hijacking, Landes (1978, p. 1) references a quote by Archie Bunker from the television show "All in the Family" that is quite relevant to the current discussion. Landes quotes Archie Bunker as saying "Well, I could stop hi-jacking tomorrow . . . if everyone was allowed to carry guns them hi-jackers wouldn't have no superiority. All you gotta do is arm all the passangers, then no hi-jacker would risk pullin' a rod."

Stories of individuals using guns to defend themselves has helped motivate thirty-one states to adopt laws requiring authorities to issue, without discretion, concealed-weapons permits to qualified applicants.[9] This constitutes a dramatic increase from the nine states that allowed concealed weapons in 1986.[10] While many studies examine the effects of gun control (see Kleck, 1995 for a survey), and a smaller number of papers specifically address the right-to-carry concealed firearms (e.g., Cook, et al., 1995; Cramer and Kopel, 1995; McDowall, et. al., 1995; and Kleck and Patterson, 1993), these papers involve little more than either time-series or cross-sectional evidence comparing mean crime rates, and none controls for variables that normally concern economists (e.g., the probability of arrest and conviction and the length of prison sentences or even variables like personal income).[11] These papers fail to recognize that, since it is frequently only the largest population counties that are very restrictive when local authorities have been given discretion in granting concealed handgun permits, "shall issue" concealed handgun permit laws, which require permit requests be granted unless the individual has a criminal record or a history of significant mental illness (Cramer and Kopel, 1995, pp. 680-707), will not alter the number of permits being issued in all counties.

Other papers suffer from additional weaknesses. The paper by McDowall, et. al. (1995), which evaluates right-to-carry provisions, was widely cited in the popular press. Yet, their study suffers from many major methodological flaws: for instance, without explanation, they pick only three cities in Florida and one city each in Mississippi and Oregon (despite the provisions involving statewide laws); and they neither use the same sample period nor the same method of picking geographical areas for each of those cities.[12]

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[9] These states were Alabama, Alaska, Arizona, Arkansas, Connecticut, Florida, Georgia, Idaho, Indiana, Maine, Mississippi, Montana, Nevada, New Hampshire, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia and Wyoming.

[10] These states were Alabama, Connecticut, Indiana, Maine, New Hampshire, North Dakota, South Dakota, Vermont, and Washington. Fourteen other states provide local discretion on whether to issue permits. California, Colorado, Delaware, Hawaii, Iowa, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New York, Rhode Island and South Carolina.

[11] All 22 gun control papers studied by Kleck (1995) use either cross-sectional state or city data or use time-series data for the entire US or a particular city.

[12] Equally damaging the authors appear to concede in a discussion that follows their piece that their results are highly sensitive to how they define the crimes that they study. Even with their strange sample selection techniques, total murders appear to fall after the passage of concealed weapon laws. Because the authors only examine murders committed with guns, there is no attempt to control for any substitution effects that may occur between different methods of murder. For an excellent discussion of the McDowall et. al. paper see Polsby (1995).

Our paper hopes to overcome these problems by using annual cross-sectional time-series county level crime data for the entire United States from 1977 to 1992 to investigate the impact of "shall issue" right-to-carry firearm laws. It is also the first paper to study the questions of deterrence using these data. While many recent studies employ proxies for deterrence — such as police expenditures or general levels of imprisonment (Levitt, 1996) —, we are able to use arrest rates by type of crime, and for a subset of our data also conviction rates and sentence lengths by type of crime.[13] We also attempt to analyze a question noted but not empirically addressed in this literature: the concern over causality between increases in handgun usage and crime rates. Is it higher crime that leads to increased handgun ownership, or the reverse? The issue is more complicated than simply whether carrying concealed firearms reduces murders because there are questions over whether criminals might substitute between different types of crimes as well as the extent to which accidental handgun deaths might increase.

II. Problems Testing the Impact of "Shall Issue" Concealed Handgun Provisions on Crime

Starting with Becker (1968), many economists have found evidence broadly consistent with the deterrent effect of punishment (e.g., Ehrlich (1973), Block and Heineke (1975), Landes (1978), Lott (1987), Andreoni (1995), Reynolds (1995), and Levitt (1996)). The notion is that the expected penalty affects the prospective criminal's desire to commit a crime. This penalty consists of the probabilities of arrest and conviction and the length of the prison sentence. It is reasonable to disentangle the probability of arrest from the probability of conviction since accused individuals appear to suffer large reputational penalties simply from being arrested (Lott, 1992b). Likewise, conviction also imposes many different penalties (e.g., lost licenses, lost voting rights, further reductions in earnings, etc.) even if the criminal is never sentenced to prison (Lott, 1990b, 1992a and b).

While this discussion is well understood, the net effect of "shall issue" right-to-carry, concealed handguns is ambiguous and remains to be tested when other factors influencing the returns to crime are controlled for. The first difficulty involves the availability of detailed county level data on a variety of crimes over 3054 counties during the period from 1977 to 1992. Unfortunately, for the time period we

[13] Recent attempts to relate the crime rate to the prison population concern us (Levitt, 1996). Besides difficulties in relating the total prison population with any particular type of crime, we are also troubled by the ability to compare a stock (the prison population) with a flow (the crime rate).

study, the FBI's Uniform Crime Report only includes arrest rate data rather than conviction rates or prison sentences. While we make use of the arrest rate information, we will also use county level dummies, which admittedly constitute a rather imperfect way to control for cross county differences such as differences in expected penalties. Fortunately, however, alternative variables are available to help us proxy for changes in legal regimes that affect the crime rate. One such method is to use another crime category as an exogenous variable that is correlated with the crimes that we are studying, but at the same time is unrelated to the changes in right-to-carry firearm laws. Finally, after telephoning law enforcement officials in all 50 states, we were able to collect time-series county level conviction rates and mean prison sentence lengths for three states (Arizona, Oregon, and Washington).

The FBI crime reports include seven categories of crime: murder, rape, aggravated assault, robbery, auto theft, burglary, and larceny.[14] Two additional summary categories were included: violent crimes (including murder, rape, aggravated assault, and robbery) and property crimes (including auto theft, burglary, and larceny). Despite being widely reported measures in the press, these broader categories are somewhat problematic in that all crimes are given the same weight (e.g., one murder equals one aggravated assault). Even the narrower categories are somewhat broad for our purposes. For example, robbery includes not only street robberies which seem the most likely to be affected by "shall issue" laws, but also bank robberies where the additional return to having armed citizens would appear to be small.[15] Likewise, larceny involves crimes of "stealth," but these range from pick pockets, where "shall issue" laws could be important, to coin machine theft.[16]

This aggregation of crime categories makes it difficult to separate out which crimes might be deterred from increased handgun ownership, and which crimes might be increasing as a result of a substitution effect. Generally, we expect that the crimes most likely to be deterred by concealed handgun laws are those involving direct contact between the victim and the criminal, especially those occurring in a place where victims otherwise would not be allowed to carry firearms. For example, aggravated assault,

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[14] Arson was excluded because of a large number of inconsistencies in the data and the small number of counties reporting this measure.

[15] Robbery includes street robbery, commercial robbery, service station robbery, convenience robbery, residence robbery, and bank robbery.

[16] Larceny includes pick pockets, purse snatching, shoplifting, bike theft, theft from buildings, theft from coin machines, and theft from motor vehicles.

murder, robbery, and rape seem most likely to fit both conditions, though obviously some of all these crimes can occur in places like residences where the victims could already possess firearms to protect themselves.

By contrast, crimes like auto theft seem unlikely to be deterred by gun ownership. While larceny is more debatable, in general — to the extent that these crimes actually involve "stealth" — the probability that victims will notice the crime being committed seems low and thus the opportunities to use a gun are relatively rare. The effect on burglary is ambiguous from a theoretical standpoint. It is true that if "shall issue" laws cause more people to own a gun, the chance of a burglar breaking into a house with an armed resident goes up. However, if some of those who already owned guns now obtain right-to-carry permits, the relative cost of crimes like armed street robbery and certain other types of robberies (where an armed patron may be present) should rise relative to that for burglary.

Previous concealed handgun studies that rely on state level data suffer from an important potential problem: they ignore the heterogeneity within states (e.g., Linsky, et. al., 1988 and Cramer and Kopel, 1995). Our telephone conversations with many law enforcement officials have made it very clear that there was a large variation across counties within a state in terms of how freely gun permits were granted to residents prior to the adoption of "shall issue" right-to-carry laws.[17] All those we talked to strongly indicated that the most populous counties had previously adopted by far the most restrictive practices on issuing permits. The implication for existing studies is that simply using state level data rather than county data will bias the results against finding any impact from passing right-to-carry provisions. Those counties that were unaffected by the law must be separated out from those counties where the change could be quite dramatic. Even cross-sectional city data (e.g., Kleck and Patterson, 1993) will not solve this problem, because without time series data it is impossible to know what impact a change in the law had for a particular city.

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[17] Among those who made this comment to us were: Bob Barnhardt, Manager of the Intelligence/Concealed Handgun Unite of Multinomah County, Oregon; Mike Woodward, with the Oregon Law Enforcemnt Data System; Joe Vincent with the Washington Department of Licensing Firearms Unit; Alan Krug who provided us with the Pennsylvania Permit data; and Susan Harrell with the Florida Department of State Concealed Weapons Division. Evidence for this point with respect to Virginia is obtained from (Lipton, 1995, p. A1) where it is noted that, "Analysts say the new law, which drops the requirement that prospective gun carriers show a 'demonstrated need' to be armed, likely won't make much of a difference in rural areas, where judges have long issued permits to most people who applied for them. But in urban areas such as Northern Virginia -- where judges granted few permits because few residents could justify a need for them -- the number of concealed weapon permits issued is expected to soar. In Fairfax, for example, a county of more than 850,000 people, only 10 now have permits." The Cramer and Kopel (1994) piece also raises this point with respect to California.

There are two ways of handling this problem. First, for the national sample, we can see whether the passage of "shall issue" right-to-carry laws produces systematically different effects between the high and low population counties. Second, for three states, Arizona, Oregon, and Pennsylvania, we have acquired time series data on the number of right-to-carry permits for each county. The normal difficulty with using data on the number of permits involves the question of causality: do more permits make crimes more costly or do higher crimes lead to more permits? The change in the number of permits before and after the change in the state laws allows us to rank the counties on the basis of how restrictive they had actually been in issuing permits prior to the change in the law. Of course there is still the question of why the state concealed handgun law changed, but since we are dealing with county level rather than state level data we benefit from the fact that those counties which had the most restrictive permitting policies were also the most likely to have the new laws exogenously imposed upon them by the rest of their state.

Using county level data also has another important advantage in that both crime and arrest rates vary widely within states. In fact, as Table 1 indicates, the standard deviation of both crime and arrest rates across states is almost always smaller than the average within state standard deviation across counties. With the exception of robbery, the standard deviation across states for crime rates ranges from between 61 and 83 percent of the average of the standard deviation within states. (The difference between these two columns with respect to violent crimes arises because robberies make up such a large fraction of the total crimes in this category.) For arrest rates, the numbers are much more dramatic, with the standard deviation across states as small as 15 percent of the average of the standard deviation within states. These results imply that it is no more accurate to view all the counties in the typical state as a homogenous unit than it is to view all the states in the United States as one homogenous unit. For example, when a state's arrest rate rises, it may make a big difference whether that increase is taking place in the most or least crime prone counties. Depending upon which types of counties the changes in arrest rates are occurring in and depending on how sensitive the crime rates are to changes in those particular counties could produce widely differring estimates of how increasing a state's average arrest rate will deter crime. Aggregating these data may thus make it more difficult to discern the true relationship that exists between deterrence and crime.

Perhaps the relatively small across-state variation as compared to within-state variations is not so surprising given that states tend to average out differences as they encompass both rural and urban areas. Yet, when coupled with the preceding discussion on how concealed handgun provisions affected different counties in the same state differently, these numbers strongly imply that it risky to assume that states are homogenous units with respect to either how crimes are punished or how the laws which affect gun usage are changed. Unfortunately, this focus of state level data is pervasive in the entire crime literature, which focuses on state or city level data and fails to recognize the differences between rural and urban counties.

However, using county level data has some drawbacks. Frequently, because of the low crime rates in many low population counties, it is quite common to find huge variations in the arrest and conviction rates between years. In addition, our sample indicates that annual conviction rates for some counties are as high as 13 times the offense rate. This anomaly arises for a couple reasons. First, the year in which the offense occurs frequently differs from the year in which the arrests and/or convictions occur. Second, an offense may involve more than one offender. Unfortunately, the FBI data set allows us neither to link the years in which offenses and arrests occurred nor to link offenders with a particular crime. When dealing with counties where only a couple murders occur annually, arrests or convictions can be multiples higher than the number of offenses in a year. This data problem appears especially noticeable for murder and rape.

One partial solution is to limit the sample to only counties with large populations. For counties with a large numbers of crimes, these waves have a significantly smoother flow of arrests and convictions relative to offenses. An alternative solution is to take a moving average of the arrest or conviction rates over several years, though this reduces the length of the usable sample period, depending upon how many years are used to compute this average. Furthermore, the moving average solution does nothing to alleviate the effect of multiple suspects being arrested for a single crime.

Another concern is that otherwise law abiding citizens may have carried concealed handguns even before it was legal to do so. If shall issue laws do not alter the total number of concealed handguns carried by otherwise law abiding citizens but merely legalizes their previous actions, passing these laws seems unlikely to affect crime rates. The only real effect from making concealed handguns legal could

arise from people being more willing to use handguns to defend themselves, though this might also imply that they more likely to make mistakes using these handguns.

It is also possible that concealed firearm laws both make individuals safer and increase crime rates at the same time. As Peltzman (1975) has pointed out in the context of automobile safety regulations, increasing safety can result in drivers offsetting these gains by taking more risks in how they drive. The same thing is possible with regard to crime. For example, allowing citizens to carry concealed firearms may encourage people to risk entering more dangerous neighborhoods or to begin traveling during times they previously avoided. Thus, since the decision to engage in these riskier activities is a voluntary one, it is possible that society still could be better off even if crime rates were to rise as a result of concealed handgun laws.

Finally, there are also the issues of why certain states adopted concealed handgun laws and whether higher offense rates result in lower arrest rates. To the extent that states adopted the law because crime were rising, ordinary least squares estimates would underpredict the drop in crime. Likewise, if the rules were adopted when crimes rates were falling, the bias would be in the opposite direction. None of the previous studies deal with this last type of potential bias. At least since Ehrlich (1973, pp. 548-553), economists have also realized that potential biases exist from having the offense rate as both the endogenous variable and as the denominator in determining the arrest rate and because increasing crime rates may lower the arrest if the same resources are being asked to do more work. Fortunately, both these sets of potential biases can be dealt with using two-stage least-squares.

III. The Data

Between 1977 and 1992, 10 states (Florida (1987), Georgia (1989), Idaho (1990), Maine (1985), Mississippi (1990), Montana (1991), Oregon (1990), Pennsylvania (1989), Virginia (1988), and West Virginia (1989)) adopted "shall issue" right-to-carry firearm laws. However, Pennsylvania is a special case because Philadelphia was exempted from the state law during our sample period. Nine other states (Alabama, Connecticut, Indiana, Maine, New Hampshire, North Dakota, South Dakota, Vermont, and Washington) effectively had these laws on the books prior to the period being studied.[18] Since the data

[18] We rely on Cramer and Kopel (1994 and 1995) for this list of states. Some states known as "do issue" states are also

are at the county level, a dummy variable is set equal to one for each county operating under "shall issue" right-to-carry laws. A Nexis search was conducted to determine the exact date on which these laws took effect. For the states that adopted the law during the year, the dummy variable for that year is scaled to equal that portion of the year for which the law was in effect.

While the number of arrests and offenses for each type of crime in every county from 1977 to 1992 were provided by the Uniform Crime Report, we also contacted the state department of corrections, State Attorney Generals, State Secretary of State, and State Police offices in every state to try to compile data on conviction rates, sentence lengths, and right-to-carry concealed weapons permits by county. The Bureau of Justice Statistics also released a list of contacts in every state that might have available state level criminal justice data. Unfortunately, county data on the total number of outstanding right-to-carry pistol permits were available for only Arizona, California, Florida, Oregon, Pennsylvania, and Washington, though time series county data before and after a change in the permitting law was only available for Arizona (1994 to 1996), Oregon (1990 to 1992) and Pennsylvania (1986 to 1992). Since the Oregon "shall issue" law passed in 1990, we attempted to get data on the number of permits in 1989 by calling up every county sheriff in Oregon, with 25 of the 36 counties providing us with this information. (The remaining counties claimed that records had not been kept.)[19] For Oregon, data on the county level conviction rate and prison sentence length was also available from 1977 to 1992.

One difficulty with the sentence length data is that Oregon passed a sentencing reform act that went into effect in November 1989 causing criminals to serve 85 percent of their sentence, and thus judges may have correspondingly altered their rulings. Even then, this change was phased in over time because the law only applied to crimes that took place after it went into effect in 1989. In addition, the Oregon system did not keep complete records prior to 1987, and the completeness of these records decreased the further into the past one went. One solution to both of these problems is to interact the prison sentence length with year dummy variables. A similar problem exists for Arizona which adopted a truth-in-sentencing reform during the fall of 1994. Finally, Arizona is different from Oregon and Pennsylvania in

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included in Cramer and Kopel's list of "shall issue" states though these authors argue that for all practical purposes these two groups of states are identical.

[19] The Oregon counties providing permit data were Benton, Clackamas, Coos, Curry, Deschutes, Douglas, Gilliam, Hood River, Jackson, Jefferson, Josephine, Klamath, Lane, Linn, Malheur, Marion, Morrow, Multnomah, Polk, Tillamook, Washington and Yamhill.

that it already allowed handguns to be carried openly before passing its concealed handgun law, thus one might expect to find a somewhat smaller response to adopting a concealed handgun law.

In addition to using county dummy variables, other data were collected from the Bureau of the Census to try controlling for other demographic characteristics that might determine the crime rate. These data included information on the population density per square mile, total county population, and detailed information on the racial and age breakdown of the county (percent of population by each racial group and by sex between 10 and 19 years of age, between 20 and 29, between 30 and 39, between 40 and 49, between 50 and 64, and 65 and over). (See Table 2 for the list and summary statistics.) While a large literature discusses the likelihood of younger males engaging in crime (e.g., Wilson and Herrnstein, 1985, pp. 126-147), controlling for these other categories allows us to also attempt to measure the size of the groups considered most vulnerable (e.g., females in the case of rape).[20] Recent evidence by Glaeser and Sacerdote (1995) confirms the higher crime rates experienced in cities and examines to what extent this arises due to social and family influences as well as the changing pecuniary benefits from crime, though this is the first paper to explicitly control for population density. The data appendix provides a more complete discussion of the data.

An additional set of income data was also used. These included real per capita personal income, real per capita unemployment insurance payments, real per capita income maintenance payments, and real per capita retirement payments per person over 65 years of age.[21] Including unemployment insurance and income maintenance payments from the Commerce Department's Regional Economic Information System (REIS) data set were attempts to provide annual county level measures of unemployment and the distribution of income.

Finally, we recognize that other legal changes in penalties involving improper gun use might also have been changing simultaneously with changes in the permitting requirements for concealed handguns. In order to see whether this might confound our ability to infer what was responsible for any observed changes in crimes rates we read through various editions of the Bureau of Alcohol, Tobacco, and

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[20] However, the effect of an unusually large percentage of young males in the population may be mitigated because those most vulnerable to crime may be more likely to take actions to protect themselves. Depending upon how responsive victims are to these threats, it is possible that the coefficient for a variable like the percent of young males in the population could be zero even when the group in question poses a large criminal threat.

[21] For a discussion of the relationship between income and crime see Lott (1990a)

Firearms' State Laws and Published Ordinances - Firearms (1976, 1986, 1989, and 1994). Excluding the laws regarding machine guns and sawed-off shotguns, there is no evidence that the laws involving the use of guns changed significantly when concealed permit rules were changed.[22] Another survey which addresses the somewhat boarder question of sentencing enhancement laws for felonies committed with deadly weapons (firearms, explosives, and knives) from 1970-1992 also confirms this general finding with all but four of the legal changes clustered from 1970 to 1981 (Marvell and Moody, 1995, pp. 258-261). Yet, controlling for the dates supplied by Marvell and Moody still allows us to examine the deterrence effect of criminal penalties specifically targeted at the use of deadly weapons during this earlier period.[23]

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[22] A more detailed survey of the state laws is available from the authors, a brief survey of the laws excluding the permitting changes finds: Alabama: No significant changes in these laws during period. Connecticut: Law gradually changed in wording from criminal use to criminal possession from 1986 to 1994. Florida: Has the most extensive description of penalties. The same basic law (790.161) is found throughout the years. An additional law (790.07) is found only in 1986. Georgia: A law (16-11-106) that does not appear in the 1986 edition appears in the 1989 and 1994 issues. The law involves possession of a firearm during commission of a crime and specifies the penalties associated with it. Because of the possibility that this legal change might have occurred at the same time as the 198 changes in permitting rules, we used a Lexis search to check the legislative history of 16-11-106 and found that the laws were last changed in 1987, two years before the change in permitting rules (O.C.G.A. @ 16-11-106 (1996)). Idaho: There are no significant changes in Idaho over time. Indiana: No significant changes in these laws during period. Maine: No significant changes in these laws during period. Mississippi: Law 97-37-1 talks explicitly about penalties. It appears in the 1986 version, but not in the 1989 or the 1994 versions. Montana: Some changes in punishments related to unauthorized carrying of concealed weapons laws, but no changes in the punishment for using a weapon in a crime. New Hampshire: No significant changes in these laws during period. North Dakota: No significant changes in these laws during period. Oregon: No significant changes in these laws during period. Pennsylvania: No significant changes in these laws during period. South Dakota: Law 22-14-13, which specifies penalties for commission of a felony while armed appears in 1986, but not 1989. Vermont: Section 4005, which outlines the penalties for carrying a gun when committing a felony, appears in 1986, but not in 1989 or 1994. Virginia: No significant changes in these laws during period. Washington: No significant changes in these laws during period. West Virginia: Law 67-7-12 is on the books in 1994, but not the earlier versions.It involves punishment for endangerment with firearms. Removing Georgia from the sample, which was the only state that had gun laws changing near the year that the "Shall Issue" law went into affect, so that there is no chance that the other changes in guns laws might effect our results does not appreciably alter our results.

[23] Using Marvell and Moody's findings show that the closest time period between these sentencing enhancements and changes in concealed weapon laws is 7 years (Pennsylvania). 26 states passed their enhancement laws prior to the beginning of our sample period and only 4 states passed these types of laws after 1981. Maine which implemented its concealed handgun law in 1985 passed its sentencing enhancement laws in 1971.

IV. The Empirical Evidence

A. Using County Data for the United States

The first group of regressions reported in Table 3 attempt to explain the natural log of the crime rate for nine different categories of crime. The regressions are run using weighted ordinary least squares. While we are primarily interested in a dummy variable to represent whether a state has a "shall issue" law, we also control for each type of crime's the arrest rate, demographic differences, and dummies for the fixed effects for years and counties. The results imply that "shall issue" laws coincide with fewer murders, rapes, aggravated assaults, and rapes.[24] On the other hand, auto theft and larceny rates rise. Both changes are consistent with our discussion on the direct and substitution effects produced by concealed weapons.[25] Rerunning these specifications with only the "shall issue" dummy, the arrest rates, and the fixed year and county effects produces even more significant effects for the "shall issue" dummy and the arrest rates.

The results are large empirically. When state concealed handgun laws went into effect in a county, murders fell by 8.5 percent, and rapes and aggravated assaults fell by 5 and 7 percent. In 1992, there were 18,469 murders; 79,272 rapes; 538,368 robberies; and 861,103 aggravated assaults in counties without "shall issue" laws. The coefficients imply that if these counties had been subject to state concealed handgun laws, murders in the United States would have declined by 1,570. Given the concern that has been raised about increased accidental deaths from concealed weapons, it is interesting to note that the entire number of accidental gun deaths in the United States in 1992 was 1,409. Of this total, 546 accidental deaths were in states with concealed handgun laws and 863 were in those without these laws. The reduction in murders is as much as three times greater than the total number of accidental

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[24] One possible concern with these initial results raises from our use of an aggregate public policy variable (state right-to-carry laws) on county level data (Greenwald, 1983 and Moulton, 1990). As Moulton (p. 334) writes: "If disturbances are correlated within the groupings that are used to merge aggregate with micro data, however, then even small levels of correlation can cause the standard errors from the ordinary least squares (OLS) to be seriously biased downward." Yet, this should not really be a concern here because of our use of dummy variables for all the counties, which is equivalent to using state dummies as well as county dummies for all but one of the counties within each state. Using these dummy variables thus allow us to control for any disturbances that are correlated within any individual state. The regressions discussed in fn. 26 rerun the specifications shown in Table 3 but also include state dummies that are interacted with a time trend. This should thus not only control for any disturbances that are correlated with the states, but also for any disturbances that are correlated within a state over time. Finally, while right-to-carry laws are almost always statewide laws, there is one exception. Pennsylvania exempted it largest county (Philadelphia) from the law when it was passed in 1989, and it remained exempt from the law during the rest of the sample period.

[25] However, the increase in the number of property crimes is larger than the drop in the number of robberies.

deaths in concealed handgun states. Thus, if our results are accurate, the net effect of allowing concealed handguns is clearly to save lives. Similarly, the results indicate that the number of rapes in states without "shall issue" laws would have declined by 4,177; aggravated assaults by 60,363; and robberies by 11,898.[26]

On the other hand, property crime rates definitely increased after "shall issue" laws were implemented. The results are equally dramatic. If states without concealed handgun laws had passed such laws, there would have been 247,165 more property crimes in 1992 (a 2.7 percent increase). Thus, criminals respond substantially to the threat of being shot by instead substituting into less risky crimes.[27]

A recent National Institute of Justice study (Miller, Cohen, and Wiersema, 1996) provides estimates the costs of different types of crime based upon lost productivity; out-of-pocket expenses such as medical bills and property losses; and losses for fear, pain, suffering, and lost quality of life. While there are questions about using jury awards to measure losses such as fear, pain, suffering, and lost quality of life, the estimates provide us one method of comparing the reduction in violent crimes with the increase in property crimes. Using the numbers from Table 3, the estimated gain from allowing concealed handguns is over $6.214 billion in 1992 dollars. The reduction in violent crimes represents a gain of $6.6 billion ($4.75 billion from murder, $1.4 billion from aggravated assault, $374 million from rape, and $98 million from robbery), while the increase in property crimes represents a loss of $417 million ($342 million from auto theft, $73 million from larceny, and $1.5 million from burglary). However,

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[26] Given the possible relationship between drug prices and crime, we reran the regressions in Table 3 by including an additional variable for cocaine prices. One argument linking drug prices and crime is that if the demand for drugs is inelastic and if people commit crimes in order to finance their habits, higher drug prices might lead to increased levels of crime. Using the Drug Enforcement Administration's STRIDE data set from 1977 to 1992 (with the exceptions of 1988 and 1989), Grossman et. al. (1996) estimate the price of cocaine as a function of its purity, weight, year dummies, year dummies interacted with eight regional dummies, and individual city dummies. There are two problems with this measure of predicted prices: 1) it removes observations during a couple of important years during which changes were occurring in concealed handgun laws and 2) the predicted values that we obtained from this ignored the city level observations. The reduced number of observations provides an important reason why we do not include this variable in the regressions shown in Table 3. However, the primary impact of including this new variable is to make the "shall issue" coefficients in the violent crime regressions even more negative and more significant (e.g., the coefficient for the violent crime regression is now -.075, -.10 for the murder regression, -.077 for rape, and -.11 for aggravated assault, with all of them significant at more than the .01 level). Only for the burglary regression does the "shall issue" coefficient change appreciably: it is now negative and insignificant. The variable for drug prices itself is negatively related to murders and rapes and positively and significantly related at least at the .01 level for a one-tailed t-test to all the other categories of crime. We would like to thank Michael Grossman for providing us with the original regressions on drug prices from his paper.

[27] By contrast, if the question had instead been what would the difference in crime rates have been between either have all states or no states adopting right-to-carry handgun, the case of all states adopting concealed handgun laws would have produced 2,020 fewer murders; 5,747 fewer rapes; 79,001 fewer aggravated assaults; and 14,862 fewer robberies. By contrast, property crimes would have risen by 336,409.

while $6.2 billion is substantial, to put it into perspective, it equals only about 1.33 percent of the total aggregate losses from these crime categories. These estimates are probably most sensitive to the value of life used (in the Miller et. al. study this was set at $1.84 million in 1992 dollars). Higher estimated values of life will increase the net gains from concealed handgun use, while lower values of life will reduce the gains.[28] To the extent that people are taking greater risks towards crime because of any increased safety produced by concealed handgun laws (again see Peltzman (1975)), these numbers will underestimate the total savings from concealed handguns.

The arrest rate produces the most consistent effect on crime. Higher arrest rates imply lower crime rates for all categories of crime. A one standard deviation change in the probability of arrest accounts for 3 to 17 percent of a one standard deviation change in the various crime rates. The crime most responsive to arrest rates is burglary (11 percent), followed by property crimes (10 percent); aggravated assault and violent crimes more generally (9 percent); murder (7 percent); rape, robbery, and larceny (4 percent); and auto theft (both 3 percent).

For property crimes, a one standard deviation change in the percent of the population that is black, male, and between 10 and 19 years of age explains 22 percent of these crime rates. For violent crimes, the same number is 5 percent. Other patterns also show up in the data. For example, more black females between the ages of 20 and 39, more white females between the ages of 10 and 39 and those over 65, and other race females between 20 and 29 are positively and significantly associated with a greater number of rapes occurring. Population density appears to be most important in explaining robbery, burglary, and auto theft rates, with a one standard deviation change in population density being able to explain 36 percent of a one standard deviation change in auto theft. Perhaps most surprising is the relatively small, even if frequently significant, effect of income on crime rates. A one standard deviation change in real per capita income explains no more than 4 percent of a one standard deviation change in

[28] We reran the specifications shown in Table 3 by also including state dummies which were each interacted with a time trend variable. In this case, all of the concealed handgun dummies were negative, though the coefficients were not statistically significant for aggravated assault and larceny. Under this specification, adopting concealed handgun laws in those states currently without them would have reduced 1992 murders by 1,839; rapes by 3,727; aggravated assaults by 10,990; robberies by 61,064; burglaries by 112,665; larcenies by 93,274; and auto thefts by 41,512. The total value of this reduction in crime in 1992 dollars would have been $7.02 billion. With the exceptions of aggravated assault and burglary, violent crimes still experienced larger drops from the adoption of concealed handgun laws than did property crimes. Rerunning the specifications in Table 3 without either the percentage of the populations that fall into the different sex, race, and age categories or without the measures of income tended to produce similar though somewhat more significant results with respect to concealed handgun laws. The estimated gains from passing concealed handgun laws were also larger.

crime and in seven of the specifications it explains 2 percent or less of the change. If the race, sex, and age variables are replaced with variables showing the percent of the population that is black and the percent that is white, 50 percent of a standard deviation in the murder rate is explained by the percent of the population that is black. Given the high rates that blacks are arrested and incarcerated or are victims of crimes, this is not unexpected.

Rerunning the regressions by adding a dummy variable to control for state laws that increase sentencing penalties when deadly weapon are used (Marvell and Moody, 1995, pp. 259-260) has no noticeable effect on the concealed handgun coefficients. The enhanced sentencing law dummy is negative and statistically significant only for aggravated assaults, with the coefficient implying that adopting this type of law reduces aggravate assaults by 4 percent. Otherwise these laws generally appear to have little effect on crime rates.

Given the wide use of state level crime data by economists and the large within state heterogeneity shown in Table 1, Table 4 provides a comparison by reestimating the specifications reported in Table 3 using state level rather than county level data. The only other difference in the specification is the replacement of county dummies with state dummies. While the results in these two tables are generally similar, two differences immediately manifest themselves: 1) all the specifications now imply a negative and almost always significant relationship between allowing concealed handguns and the level of crime and 2) concealed handgun laws explain much more of the variation in crime rates while arrest rates (with the exception of robbery) explain much less of the variation.[29] Despite the fact that concealed handgun laws appear to lower both violent and property crime rates, the results still imply that violent crimes are much more sensitive to the introduction of concealed handguns, with violent crimes falling three times more than property crimes. These results imply that if all states had adopted concealed handgun laws in 1992, 1,777 fewer murders and 7,000 fewer rapes would have taken place.[30] Overall, Table 4 implies that the estimated gain from the lower crime produced by handguns was $10.3 billion in 1992 dollars

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[29] Other differences also arise in the other control variables such as those relating the percentage of the population of a certain race, sex and age. For example, the percent of black males in the population between 10 and 19 is no longer statistically significant.

[30] By contrast, if the question had instead been what would the difference in crime rates have been between either have all states or no states adopting right-to-carry handgun, the case of all states adopting concealed handgun laws would have produced 2,286 fewer murders; 9,630 fewer rapes; 50,353 fewer aggravated assaults; and 92,264 fewer robberies. Property crimes would also have fallen by 659,061.

(see Table 5). Yet, at least in the case of property crimes, the concealed handgun law coefficients' sensitivity to whether these regressions are run at the state or county level suggests caution in aggregating these data into such large units as states.

Table 6 examines whether changes in concealed handgun laws and arrest rates have differential effects in high or low crime counties. To test this, the regressions shown in Table 3 were reestimated first using the sample above the median crime rate by type of crime and then separately using the sample below the median. High crime rates may also breed more crime because the stigma from arrest may be less when crime is rampant (Ramusen, 1996). If so, any change in apprehension rates should produce a greater reputational impact and thus greater deterrence in low crime than high crime counties.

The results indicate that the concealed handgun law's coefficient signs are consistently the same for both low and high crime counties, though for two of the crime categories (rape and aggravate assault) concealed handgun laws have only statistically significant effects in the relatively high crime counties. For most violent crimes such as murder, rape, and aggravated assault concealed weapons laws have a much greater deterrent effect in high crime counties, while for robbery, property crimes, auto theft, burglary, and larceny the effect appears to be greatest in low crime counties. The table also shows that the deterrent effect of arrests is significantly different at least at the 5 percent level between high and low crime counties for eight of the nine crime categories (the one exception being violent crimes). The results do not support the claim that arrests produce a greater reputational penalty in low crime areas. While additional arrests in low and high crime counties produce virtually identical changes in violent crime rates, the arrest rate coefficient for high crime counties is almost four times bigger than it is for low crime counties.

One relationship in these first three sets of regressions deserves a special comment. Despite the relatively small number of women using concealed handgun permits, the concealed handgun coefficient for explaining rapes is consistently comparable in size to the effect that this variable has on other violent crimes rates. In Washington and Oregon states in January 1996, women constituted 18.6 and 22.9 percent of those with concealed handgun permits for a total of 118,728 and 51,859 permits respectively.[31] The time-series data which are available for Oregon during our sample period even

[31] The Washington state data were obtained from Joe Vincent of the state Department of Licensing Firearms Unit in

indicates that only 17.6 percent of permit holders were women in 1991. While it is possible that the set of women who are particularly likely to be raped might already carry concealed handguns at much higher rates than the general population of women, the results are at least suggestive that rapists are particularly susceptable to this form of deterrence. Possibly this arises since providing a woman with a gun has a much bigger affect on her ability to defend herself against a crime than providing a handgun to a man. Thus even if relatively few women carry handguns, the expected change in the cost of attacking women could still be nearly as great. To phrase this differently, the external benefits to other women from a women carrying a concealed handgun appear to be large relative to the gain produced by an additional man carrying a concealed handgun. If concealed handgun use were to be subsidized to capture these positive externalities, these results are consistent with efficiency requiring that women receive the largest subsidies.[32]

As mentioned in Section II, an important concern with these data is that passing a concealed handgun law should not affect all counties equally. In particular, we expect that it was the most populous counties that most restricted people's ability to carry concealed weapons. To test this, Table 7 repeats all the regressions in Table 3 but instead interacts the Shall Issue Law Adopted Dummy with county population. While all the other coefficients remain virtually unchanged, this new interaction retains the same signs as those for the original Shall Issue Dummy, and in all but one case the coefficients are more significant. The coefficients are consistent with the hypothesis that the new laws produced the greatest change in the largest counties. The larger counties have a much greater response in both directions to changes in the laws. Violent crimes fall more and property crimes rise more in the largest counties. The bottom of the table indicates how these effects vary for different size counties. For example, passing a concealed handgun law lowers the murder rate in cities two standard deviations above the mean population by 12 percent, 7.4 times more than a shall issue laws lowers murders for the mean population city. While the law enforcement officers we talked to continually mentioned population as being the key variable, we

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Olympia, Washington. The Oregon state data were obtained from Mike Woodward with the Law Enforcement Data System, Department of State Police, Salem, Oregon.

[32] Unpulished information obtained by Kleck and Gertz in their 1995 National Self-Defense Survey implies that women were as likely as men to use handguns in self-defense in or near their home (defined as in their yard, carport, apartment hall, stree adjacent to home, detached garage, etc.), but that women were less than half as likely to use a gun in self-defense away from home.

also reran these regressions using population density as the variable that we interacted with the shall issue dummy. The results remain very similar to those reported.

Admittedly, although arrest rates and county fixed effects are controlled for, these regressions have thus far controlled for expected penalties in a limited way. Table 8 reruns the regressions in Table 7 but includes either the burglary or robbery rates to proxy for other changes in the criminal justice system. Robbery and burglary are the violent and property crime categories that are the least related to changes in concealed handgun laws, but they are still positively correlated with all the other types of crimes. One additional minor change is made in two of the earlier specifications. In order to avoid any artificial collinearity either between violent crime and robbery or between property crimes and burglary, violent crimes net of robbery and property crimes net of burglary are used as the endogenous variables when robbery or burglary are controlled for.

Some evidence that burglary or robbery rates will proxy for other changes in the criminal justice system can be seen in their correlations with other crime categories. The Pearson correlation coefficient between robbery and the other crime categories ranges between .49 and .80, and all are statistically significant at least at the .0001 level. For burglary the correlations range from .45 to .68, and they are also equally statistically significant. The two sets of specifications reported in Table 8 closely bound our earlier estimates, and the estimates continue to imply that the introduction of concealed handgun laws coincided with similarly large drops in violent crimes and increases in property crimes. The only difference with the preceding results is that they now imply that the affect on robberies is statistically significant. The estimates on the other control variables also essentially remain unchanged.

We also reestimated the regressions in Table 3 using first differences on all the control variables (see Table 9). These regressions were run using a dummy variable for the presence of "shall issue" concealed handgun laws and differencing that variable, and the results consistently indicate a negative and statistically significant effect from the legal change for violent crimes, rape, and aggravated assault. Shall issue laws negatively affect murder rates in both specifications, but the effect is only statistically significant when the shall issue variable is also differenced. The property crime results are also consistent with those shown in the previous tables, showing a positive impact of shall issue laws on crime rates. Perhaps not surprisingly, the results imply that the gun laws immediately altered crime rates,

but that an additional change was spread out over time, possibly because concealed handgun use did not instantly move to its new steady state level. The annual decrease in violent crimes averaged about 2 percent, while the annual increase in property crimes average about 5 percent.

All the results in tables 3, 6, and 7 were reestimated to deal with the concerns raised in Section II over the "noise" in arrest rates arising from the timing of offenses and arrests and the possibility of multiple offenders. We reran all the regressions in this section first by limiting the sample to those counties over 100,000 and then 200,000 people. Consistent with the evidence reported in Table 7, the more the sample was limited to larger population counties the stronger and more statistically significant was the relationship between concealed handgun laws and the previously reported effects on crime. The arrest rate results also tended to be stronger and more significant. We also tried rerunning all the regressions by redefining the arrest rate as the number of arrests over the last three years divided by the total number of offenses over the last three years. Despite the reduced sample size, the results remained similar to those already reported.

Not only does this initial empirical work provide strong evidence that concealed handgun laws reduce violent crime and that higher arrest rates deter all types of crime, but the work also allows us to evaluate some of the broader empirical issues concerning criminal deterrence discussed in Section II. The results confirm some of our earlier discussion on potential aggregation problems with state level data. County level data implies that arrest rates explain about six times the variation in violent crime rates and eight times the variation in property crime rates that arrest rates explain when we use state level data. Breaking the data down by whether a county is a high or a low crime county indicates that arrest rates do not affect crime rates equally in all counties. The evidence also confirms the claims of law enforcement officials that "Shall Issue" laws represented more of a change in how the most populous counties permitted concealed handguns. One concern that was not borne out was over whether state level regressions could bias the coefficients on the concealed handgun laws towards zero. In fact, while state and county level regressions produce widely different coefficients for property crimes, seven of the nine crime categories imply that the effect of concealed handgun laws was much larger when state level data were used. However, one conclusion is clear: the very different results between state and county level data should

make us very cautious in aggregating crime data and would imply that the data should remain as disaggregated as possible.

B. The Endogeniety of Arrest Rates and the Passage of Concealed Handgun Laws

The previous specifications have assumed that both the arrest rate and the passage of concealed handgun laws are exogenous. Following Ehrlich (1973, pp. 548-551), we allow for the arrest rate to be a function of: the lagged crime rates; per capita and per violent and property crimes measures of police employment and payroll at the state level (these three different measures of employment are also broken down by whether police officers have the power to make arrest); the measures of income, unemployment insurance payments, and the percentages of county population by age, sex, and race used in Table 3; and county and year dummies.[33] In an attempt to control for political influences, we also included the percent of a state's population that are members of the National Rifle Association and the percent of the vote received by the Republican presidential candidate at the state level. Because presidential candidates and issues vary between elections, the percent voting Republican is undoubtedly not directly comparable across years. To account for these difference across elections, we interacted the percent voting Republican with dummy variables for the years immediately next to the relevant elections. Thus, the percent of the vote obtained in 1980 is multiplied by a year dummy for the years from 1979 to 1982, the percent of the vote obtained in 1984 is multiplied by a year dummy for the years from 1983 to 1986, and so on through the 1992 election. A second set of regressions explaining the arrest rate also include the change in the natural log of the crime rates to proxy for the difficulty police forces face in adjusting to changing circumstances.[34] However, the time period studied in all these regressions is more limited than in our previous tables because state level data on police employment and payroll are only available from the U.S. Department of Justices' Expenditure and Employment data for the Criminal Justice System from 1982 to 1992.

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[33] See also McCormick and Tollision (1985) for an novel article testing the endogeniety of the "arrest rate" in the context of basketball fowls.

[34] We would like to thank Phil Cook for suggesting this addition to us. In a sense, this is similar to Ehrlich's (1973, p. 557) specification except that the current crime rate is broken down into its lagged value and the change between the current and previous periods.

There is also the question of why some states adopted concealed handgun laws while others did not. As noted earlier, to the extent that states adopted the law because crime was either rising or was expected to increase, ordinary least squares estimates underpredict the drop in crime. Similarly, if these rules were adopted when crimes rates were falling, a bias is in the opposite direction. Thus, in order to predict whether a county would be in a state with concealed handgun laws we used both the natural logs of the violent and property crime rates and the first differences of those crime rates. To control for general political differences that might affect the chances of these laws being adopted, we also included the National Rifle Association membership as a percent of a state's population; the Republican presidential candidate's percent of the statewide vote; the percentage a state's population that is black and the percent white; the total population in the state; regional dummy variables for whether the state is in the South, Northeast, or Midwest; and year dummy variables.

While the 2SLS estimates shown in the top half of Table 10 again use the same set of control variables employed in the preceding tables, the results differ from all our previous estimates in one important respect: concealed handgun laws are associated with large significant drops in the levels of all nine crime categories. For the estimates most similar to Ehrlich's study, five of the estimates imply that a one standard deviation change in the predicted value of the Shall Issue Law dummy variable explains at least 10 percent of a standard deviation change in the corresponding crime rates. In fact, concealed handgun laws explain a greater percentage of the change in murder rates than do arrest rates. With the exception of robbery, the set of estimates using the change in crime rates to explain arrest rates indicates a usually more statistically significant but economically smaller effect from concealed handgun laws. For example, concealed handgun laws now explains 3.9 percent of the variation in murder rates compared to 7.5 percent in the preceding results. While these results imply that even crimes with relatively little contact between victims and criminals experienced declines, the coefficients for violent crimes are still relatively more negative than the coefficients for property crimes.

For the first stage regressions explaining which states adopt concealed handgun laws (shown in the bottom half of Table 10), both the least square and logit estimates imply that the states adopting these laws are relatively Republican with large National Rifle Association memberships and low but rising violent and property crime rates. The other set of regressions used to explain the arrest rate shows that

arrest rates are lower in high income, sparsely populated, Republican areas where crime rates are increasing.

We also reestimated the state level data using similar two-stage least squares specifications. The coefficients on both the arrest rates and concealed handgun law variables remained consistently negative and statistically significant, with the state level data again implying a much stronger effect from concealed handguns and a much weaker effect from higher arrest rates. Finally, in order to use the longer data series available for the nonpolice employment and payroll variables, we reran the regressions without those variables and produced similar results.

C. Concealed Handgun Laws, the Method of Murder, and the Choice of Murder Victims

Do concealed handgun laws cause a substitution in the methods of committing murders? For example, it is possible that the number of gun murders rises after these laws are passed even though the total number of murders falls. While concealed handgun laws raise the cost of committing murders, murderers may also find it relatively more dangerous to kill people using nongun methods once people start carrying concealed handguns and substitute into guns to put themselves on a more even basis with their potential prey. Using data on the method of murder from the Mortality Detail Records provided by the United States Department of Health and Human Services, we reran the murder rate regression from Table 3 on counties over 100,000 during the period from 1982 to 1991. We then separated out murders caused by guns from all other murders. Table 11 shows that carrying concealed handguns appears to have been associated with approximately equal drops in both categories of murders. Carrying concealed handguns appears to make all types of murders realtively less attractive.

There is also the question of what effect does conceal handgun laws have on determining which types of people are more likely to be murdered? Using the Uniform Crime Reports Supplementary Homicide Reports we were able to obtain annual state level data from 1977 to 1992 on the percent of victims by sex and race as well as information on the whether the victim and the offender knew each other (whether they were members of the same family, knew each other but were not members of the same family, strangers, or the relationship is unknown).[35] Table 12 implies no statistically significant relationship between the

[35] While county level data were provided in the Supplementary Homicide Report, matching these county observations with

concealed handgun dummy and the victim's sex, race, or relationships with offenders. However, while they are not quite statistically significant at the .10 level for a two-tailed t-test, two of the point estimates appear economically important and imply that in states with concealed handgun laws victims know their nonfamily offenders 2.6 percentage points more frequently and that the percent of victims where it was not possible to determine whether a relationship existed declined by 2.9 percentage points. This raises the question of whether concealed handguns cause criminals to substitute into crimes against those whom they know and presumably are also more likely to know whether they carry concealed handguns.

The arrest rate for murder variable produces more interesting results. The percent of white victims and the percent of victims killed by family members both declined when states passed concealed handgun laws, while the percent of black victims and the percent that killed by nonfamily members that they know both increased. The results imply that higher arrest rates have a much greater deterrence effect on murders involving whites and family members. One explanation is that whites with higher incomes face a greater increase in expected penalties for any given increase in the probability of arrest.

D. Arizona, Pennsylvania, and Oregon County Data

One problem with the preceding results was the use of county population as a proxy for how restrictive counties were in allowing concealed handgun permits before the passage of "shall issue" laws. Since we are still going to control county specific levels of crime with county dummies, a better measure would have been to use the actual change in a gun permits before and after the adoption of a concealed handgun law. Fortunately, we were able to get that information for three states: Arizona, Oregon, and Pennsylvania. Arizona and Oregon also provided additional information on the conviction rate and the mean prison sentence length. However, for Oregon, because the sentence length variable is not directly comparable over time, it is interacted with all the year dummies so that we can still retain any cross-sectional information in the data. One difficulty with the Arizona prison sentence and conviction data is that they are available only from 1990 to 1995 and that since the shall issue handgun law did not take

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those used in the Uniform Crime Report proved unusually difficult. A unique county identifier was used in the Supplementary Homicide Report and it was not consistent across years. In addition, some caution is suggested in using both the Mortality Detail Records and the Supplementary Homicide Report since the murder rates reported in both sources have relatively low correlations of less than .7 with the murder rates reported in Uniform Crime Reports. This is especially surprising for the Supplementary Report which is derived from the UCR.

effect until July 1994, it is not possible for us to control for all the other variables that we control for in the other regressions. Unlike Oregon and Pennsylvania, Arizona did not allow private citizens to carry concealed handguns prior to July 1994, so the value of concealed handgun permits equals zero for this earlier period. Unfortunately, however, because Arizona's change in the law is so recent, we are unable to control for all the variables that we can control for in the other regressions.

The results in Table 14 for Pennsylvania and Table 15 for Oregon provide a couple of consistent patterns. The most economically and statistically important relationship involves the arrest rate: higher arrest rates consistently imply lower crime rates, and in 12 of the 16 regressions the effect is statistically significant. Five cases for Pennsylvania (violent crime, murder, aggravated assault, robbery, and burglary) show that arrest rates explain more than 20 percent of a standard deviation change in crime rates. Automobile theft is the only crime for which the arrest rate is insignificant in both tables.

For Pennsylvania, rape is the one crime where a one standard deviation change in per capita concealed handgun permits explains a greater percentage of a standard deviation in crime rates than it does for the arrest rate. However, increased concealed handguns usage explains more than 10 percent of a standard deviation change in murder, rape, aggravated assualt, and burglary rates. For six of the nine regressions, the concealed handgun variable for Pennsylvania exhibits the same coefficient signs that were shown for the national data. Violent crimes, with the exception of robbery, show that higher concealed handgun use significantly lowers crime rates, while property crimes exhibit the opposite tendency. However, concealed handgun use only explains about half the variation for property crimes that it explains for violent ones.[36] The regressions for Oregon weakly imply a similar relationship between concealed handgun use and crime, but the effect is only statistically significant in one case: larceny, which is also the only crime category where the negative concealed handgun coefficient differs from our previous findings.

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[36] Running the regressions for all Pennsylvania counties (and not just those over 200,000 population) produced similar coefficients signs for the change in concealed handgun permits coefficient, though the coefficients were no longer statistically significant for violent crimes, rape, and aggravated assault. Alan Krug, who provided us with the Pennsylvania handgun permit data, told us that one reason for the large increase in concealed handgun permits in some rural counties was because people used the guns for hunting. He told us that these low population rural counties tended to have their biggest increase in people obtaining permits in the fall around hunting season. If people were in fact getting a large number of permits in low population counties which already have extremely low crime rates for some reason other than crime, it will make it more difficult to pick up the deterrent effect on crime from concealed handguns that was occuring in the larger counties.

The Oregon data also show that higher conviction rates consistently result in significantly lower crime rates. A one standard deviation change in conviction rates explains 4 to 20 percent of a one standard deviation change in the corresponding crime rates. However, increases in conviction rates appear to produce a smaller deterrent effect than increases in arrest rates for five of the seven crime categories.[37] The biggest differences between the deterrence effects of arrest and conviction rates produce an interesting pattern. For rape, increasing the arrest rate by one percentage point produces more than ten times the deterrent effect of increasing the conviction rate conditional on arrest by one percent. The reverse is true for auto theft where a one percentage point increase in reduces crime by about ten times more than the same increase in convictions. These results are consistent with arrests producing large shaming or reputational penalties (e.g., see Kahan 1996). In fact, the existing evidence shows that the reputational penalties from arrest and conviction can dwarf the other legally imposed penalties (Lott, 1992a and b). However, while the literature has not separated out whether these drops are occurring due to arrest or conviction, these results are consistent with the reputational penalties for arrests alone being significant for at least some crimes.

The results for the prison sentences are not shown, but the t-statistics are frequently near zero and the coefficients indicate no clear pattern. One possible explanation for this result is that all the changes in sentencing rules produced a great deal of noise in this variable not only over time but also across counties. For example, after 1989 whether a crime was prosecuted under the pre or post 1989 rules depended upon when the crime took place. If the average time between when the offense occurred and when the prosecution took place differs across counties, the recorded prison sentence length could vary even if the actual time served was the same.

Finally, the much more limited data set for Arizona used in Table 16 produces no significant relationship between the change in concealed handgun permits and the various measures of crime rates. In fact, the coefficient signs themselves indicate no consistent pattern with the fourteen coefficients being equally divided between negative and positive signs, though six of the specfications imply that a one standard deviation change in the concealed handgun permits explains at least 8 percent of a one standard

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[37] We reran these regressions taking the natural logs of the arrest and conviction rates and it continued to produce statistically larger and even economically more important effects for the arrest rates than it did for the conviction rates.

deviation change in the corresponding crime rates. The results involving either the mean prison sentence length for those sentenced in a particular year or the actual time served for those ending their sentences also imply no consistent relationship between prison and crime rates. While the coefficients are negative in 11 of the 14 specifications, they provide weak evidence of the deterrent effect of longer prison terms: only two coefficients are negative and statistically significant.

Overall, the Pennsylvania results provide more evidence that concealed handgun ownership reduces violent crime, murder, rape, aggravated assault, and burglary; and in the case of Oregon larceny decreases as well. While the Oregon data implies that the change in handgun permits is statistically significant at .11 percent level for a one-tailed t-test, the point estimate is extremely large economically: implying that a doubling of permits reduces murder rates by 37 percent. The other coefficients for Pennsylvania and Oregon imply no significant relationship between the change in concealed handgun ownership and crime rates. The evidence from the small sample for Arizona implies no relationship between crime and concealed handgun ownership. All the results also support the claim that higher arrest and conviction rates deter crime, though, possibly in part due to the relatively poor quality of the data, no systematic effect appears to occur from longer prison sentences.

V. Accidental Deaths from Handguns

Even if "shall issue" hand gun permits lower murder rates, the question of what happens to accidental deaths still remains. Possibly, with more people carrying handguns, accidents may be more likely to happen. Earlier we saw that the number of murders prevented exceeded the entire number of accidental deaths. As Table 2 showed, while only a small portion of either accidental deaths are attributable to handgun laws, there is still the question whether concealed handgun laws affected the total number of deaths through their effect on accidental deaths.

To get a more precise answer to this question, Table 17 uses county level data from 1982 to 1991 to test whether allowing concealed handguns increased accidental deaths. Data are available from the Mortality Detail Records (provided by the United States Department of Health and Human Services) for all counties from 1982 to 1988 and for counties over 100,000 population from 1989 to 1991. The specifications are identical to those shown in all the previous tables with the exceptions that we no longer

include variables related to arrest or conviction rates and that the endogenous variables are replaced with either a measure of the number of accidental deaths from handguns or accidental deaths from all other nonhandgun sources.

While there is some evidence that the racial composition of the population and the level of income maintenance payments affect accident rates, the coefficient of the shall issue dummy is both quite small economically and insignificant. The point estimates for the first specification implies that accidental handgun deaths rose by about .5 percent when concealed handgun laws were passed. With only 156 accidental handgun deaths occurring in counties over 100,000 population (27 accidental handgun deaths occurred in states with "shall issue" laws), this point estimate implies that implementing a concealed handgun law in those states which currently do not have it would produce less than one more death (.645 deaths).

Given the very small number of accidental handgun deaths in the United States, the vast majority of counties have an accidental handgun death rate of zero and thus using ordinary least squares is not the appropriate method of estimating these relationships. To deal with this, the last two columns in Table 17 reestimate these specifications using Tobit procedures. However, because of limitations in statistical packages we were no longer able to control for all the county dummies and opted to rerun these regressions with only state dummy variables. While the coefficients for the concealed handgun law dummy variable is not statistically significant, with 186 million people living in states without these laws in 1992,[38] the third specification implies that implementing the law across those remaining states would have resulted in about 9 more accidental handgun deaths. Combining this finding with the earlier estimates from Tables 3 and 4, if the rest of the country had adopted concealed handgun laws in 1992, the net reduction in total deaths would have been approximately 1,561 to 1,767.

VI. Conclusion

Allowing citizens without criminal records or histories of significant mental illness to carry concealed handguns deters violent crimes and appears to produce an extremely small and statistically insignificant

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[38] 182 million people lived in states without these laws in 1991 so the Tobit regressions would have also implied 9 more accidental handgun deaths in that year.

change in accidental deaths. If the rest country had adopted right-to-carry concealed handgun provisions in 1992, at least 1,570 murders and over 4,177 rapes would have been avoided. On the other hand, consistent with the notion that criminals respond to incentives, county level data provides evidence that concealed handgun laws are associated with increases in property crimes involving stealth and where the probability of contact between the criminal and the victim are minimal. The largest population counties where the deterrence effect on violent crimes is the greatest is also where the substitution effect into these property crimes is the highest. The estimated annual gain in 1992 from allowing concealed handguns was over $6.21 billion.

The data also supply dramatic evidence supporting the economic notion of deterrence. Higher arrest and conviction rates consistently and dramatically reduce the crime rate. Consistent with other recent work (Kahan, 1996 and Lott, 1992b), the results imply that increasing the arrest rate, independent of the probability of eventual conviction, imposes a significant penalty on criminals. Perhaps the most surprising result is that the deterrence effect of a one percentage point increase in arrest rates is much larger than the same increase in the probability of conviction. Also surprising was that while longer prison lengths usually implied lower crime rates, the results were normally not statistically significant.

This study incorporates a number of improvements over previous studies on deterrence, and it represents a very large change in how gun studies have been done. This is the first study to use cross-sectional time-series evidence for counties at both the national level and for individual states. Instead of simply using cross-sectional state or city level data, our study has made use of the much bigger variations in arrest rates and crime rates between rural and urban areas, and it has been possible to control for whether the lower crime rates resulted from the gun laws themselves or other differences in these areas (e.g., low crime rates) which lead to the adoption of these laws. Equally importantly, our study has allowed us to examine what effect concealed handgun laws have on different counties even within the same state. The evidence indicates that the effect varies both with a county's level of crime and its population.

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Data Appendix

The number of arrests and offenses for each crime in every county from 1977-1992 were provided by the Uniform Crime Report. The UCR Program is a nationwide, cooperative statistical effort of over 16,000 city, county and state law enforcement agencies to compile data on crimes that are reported to them. During 1993, law enforcement agencies active in the UCR Program represented over 245 million U.S. inhabitants, or 95% of the total population. The coverage amounted to 97% of the U.S. population living in Metropolitan Statistical Areas (MSAs) and 86% of the population in non-MSA cities and in rural counties.[39] The Uniform Crime Reports Supplementary Homicide Reports supplied the data on the victim's sex and race and whatever relationship might have existed between the victim andthe offender.[40]

The regressions report results from a subset of the UCR data set, though we also ran the regressions with the entire data set. The main differences were that the effect of concealed handgun laws on murder were greater than what is shown in this paper and the effects on rape and aggravated assult were smaller. Observations were eliminated because of changes in reporting practices or definitions of crimes (see ***Crime in the United States*** (1977 to 1992)). For example, from 1985 to 1994 Illinois adopted a unique "gender-neutral" definition of sex offenses. Another example involves Cook county, Illinois from 1981 to 1984 where there was a large jump in reported crime because there was a change in the way officers were trained to report crime. The additional observations droped from the data set include: Florida (1988 to 1992); Georgia (1980); Kentucky (1988); Hawaii (1982); Iowa (1991); Oakland, Ca. (1991 to 1992). The counties with the following cities were also eliminated: aggravated assult for Steubenville, OH. (1977 to 1990); aggravated assult for Youngstown, OH (1977 to 1988); aggravated assult and burglary for Mobile, Al. (1977 to 1985); aggravated assult for Milwaukee, WI (1977 to 1985); Glendale, AZ (1977 to 1984); aggravated assult for Jackson, MS (1982 and 1983); aggravated assult for Aurora, CO (1982 and 1983); aggravated assult for Beaumont, TX (1982 and 1983); aggravated assult for Corpus Cristi, TX (1982 and 1983); rape for Macon, GA (1977 to 1981); robbery and larceny for Cleveland, OH (1977 to 1981); aggravated assult for Omaha, NE (1977 to 1981); Little Rock, Ark.

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[39] *Crime in the United States 1994.*

[40] The ICPSR number for this data set was 6387 and the principle investigator was James Alan Fox of Northeastern University College of Criminal Justice.

(1977 to 1979); burglary and larceny for Eau Claire, WI (1977 to 1978); Green Bay, WI. (1977); and Fort Worth, TX (1977). For all of the different crime rates, if the true rate equals zero, we added .1 before we took the natural log of those values. For the accident rates, if the true rate equals zero, we added .01 before we took the natural log of those values.[41]

The number of police in a state, which of those police have the power to make arrests, and police payrolls for a state by type of police officer are available for 1982 to 1992 from the U.S. Department of Justice's Expenditure and Employment Data for the Criminal Justice System.

The data on age, sex and racial distributions estimate the population in each county on July 1 of the respective years. The population is divided into five year segments and race is categorized as white, black and neither white nor black. The population data, with the exception of 1990 and 1992, were obtained from the Bureau of the Census.[42] The estimates use modified census data as anchor points and then employ an iterative proportional fitting technique to estimate intercensal populations. The process ensures that the county level estimates are consistent with estimates of July 1 national and state populations by age, sex, and race. The age distributions of large military installations, colleges, and institutions were estimated by a separate procedure. The counties for which special adjustments were made are listed in the report.[43] The 1990 and 1992 estimates have not yet been completed by the Bureau of the Census and made available for distribution. We estimated the 1990 data by taking an average of the 1989 and 1991 data. We estimated the 1992 data by multiplying the 1991 populations by the 1990-1991 growth rate of each county's populations.

Data on income, unemployment, income maintenance and retirement were obtained by the Regional Economic Information System (REIS). Income maintenance includes Supplemental Security Insurance (SSI), Aid to Families with Dependent Children (AFDC), and food stamps. Unemployment benefits

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[41] Dropping the zero crime values from the sample made the Shall Issue coefficients larger and more significant, but doing the same thing for the accident rate regressions did not alter those Shall Issue coefficients.

[42] For further descriptions of the procedures for calculating intercensus estimates of population see ICPSR (8384): "Intercensal Estimates of the Population of Counties by Age, Sex and Race" (United States): 1970-1980. US Department of Commerce, Bureau of the Census. Winter 1985. ICPSR, Ann Arbor, MI 48106. Also, see "Intercensal Estimates of the Population of Counties by Age, Sex and Race: 1970-1980 Tape Technical Documentation." US Bureau of the Census, Current Population Reports, Series P-23, No. 103, "Methodology for Experimental Estimates of the Population of Counties by Age and Sex: July 1, 1975." US Bureau of the Census, Census of Population, 1980: "County Population by Age, Sex, Race and Spanish Origin" (Preliminary OMB-Consistent Modified Race).

[43] US Bureau of the Census, Current Population Reports, Series P-23, No. 103, "Methodology for Experimental Estimates of the Population of Counties by Age and Sex: July 1, 1975." US Bureau of the Census, Census of Population, 1980: "County Population by Age, Sex, Race and Spanish Origin" (Preliminary OMB-Consistent Modified Race), pp. 19-23.

include state unemployment insurance compensation, Unemployment for Federal Employees, unemployment for railroad employees, and unemployment for veterans. Retirement payments include old age survivor and disability payments, federal civil employee retirement payments, military retirement payments, state and local government employee retirement payments, and workers compensation payments (both federal and state). Nominal values were converted to real values by using the consumer price index.[44] The index uses the average consumer price index for July 1983 as the base period.

Data concerning the number of concealed weapons permits for each county were obtained from a variety of sources. The Pennsylvania data were obtained from Alan Krug. Mike Woodward of the Oregon Law Enforcement and Data System provided the Oregon data for 1991 and after. The number of permits available for Oregon by county in 1989 was provided by the sheriffs departments of the individual counties. Cari Gerchick, Deputy County Attorney for Maricopa County in Arizona, provided us with the Arizona county level conviction rates, prison sentence lengths, and concealed handgun permits from 1990 to 1995. The National Rifle Association provided data on NRA membership by state from 1977 to 1992. Information on the dates at which states enacted enhanced sentencing provisions for crimes committed with deadly weapons was obtained from Marvell and Moody (1995, pp. 259-260). The first year where the dummy variable comes on is weighted by the portion of that first year that the law was in effect.

The Bureau of the Census provided data on the latitude, longitude and area in square kilometers for each county. The number of total and firearm unintentional injury deaths was obtained from annual issues of *Accident Facts* and *The Vital Statistics of the United States*. The classification of types of weapons is in *International Statistical Classification of Diseases and Related Health Problems, Tenth Edition, Volume 1*. The handgun category includes guns for single hand use, pistols and revolvers. The total includes all other types of firearms.

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[44] Statistical Abstract of the United States, 114th Edition, Table No. 746, page 487.

Table 1: Comparing the Deviation in Crime Rates Between States and By Counties Within States From 1977 to 1992: Does it make sense to View States as Relatively Homogenous Units?

Crime Rates Per 100,000 Population	Standard Deviation of State Means	Mean of Within State Standard Deviations
Violent Crime Rate	284.77	255.57
Murder Rate	6.12	8.18
Murder Rate for Guns (from 1982 to 1991)	3.9211	6.4756
Rape Rate	16.33	23.55
Aggravate Assault Rate	143.35	172.66
Robbery Rate	153.62	92.74
Property Crime Rate	1404.15	2120.28
Auto Theft Rate	162.02	219.74
Burglary Rate	527.70	760.22
Larceny Rate	819.08	1332.52
Arrest Rates Defined as the Number of Arrests Divided By the Number of Offenses[45]		
Arrest Rate for Violent Crimes	23.89	112.97
Arrest Rate for Murder	18.58	88.41
Arrest Rate for Rape	19.83	113.86
Arrest Rate for Robbery	21.97	104.40
Arrest Rate for Aggravated Assault	25.30	78.53
Arrest Rate for Property Crimes	7.907	44.49
Arrest Rate for Burglary	5.87	25.20
Arrest Rate for Larceny	11.11	71.73
Arrest Rate for Auto Theft	17.37	118.94
Truncating Arrest Rates to be no greater than one		
Arrest Rate for Violent Crimes	11.11	25.40
Arrest Rate for Murder	10.78	36.40
Arrest Rate for Rape	10.60	31.59
Arrest Rate for Robbery	8.06	32.67
Arrest Rate for Aggravated Assault	11.14	27.08
Arrest Rate for Property Crimes	5.115	11.99
Arrest Rate for Burglary	4.63	14.17
Arrest Rate for Larceny	5.91	12.97
Arrest Rate for Auto Theft	8.36	26.66

[45] Because of multiple arrests for a crime and because of the lags between when a crime occurs and an arrest takes place, the arrest rate for counties and states can be greater than one. This much more likely to occur for counties than for states.

Table 2: National Sample Means and Standard Deviations

Variable	Obs.	Mean	Standard Dev.
Gun Ownership Information:			
Shall Issue Dummy	50056	0.164704	0.368089
Arrests Rates are the ratio of arrests to offenses for a particular crime category:			
Arrest Rate for Index Crimes	45108	27.43394	126.7298
Arrest Rate for Violent Crimes	43479	71.30733	327.2456
Arrest Rate for Property Crimes	45978	24.02564	120.8654
Arrest Rate for Murder	26472	98.04648	109.7777
Arrest for Rape	33887	57.8318	132.8028
Arrest for Aggravated Assault	43472	71.36647	187.354
Arrest Rate for Robbery	34966	61.62276	189.5007
Arrest Rate for Burglary	45801	21.51446	47.28603
Arrest Rate for Larceny	45776	25.57141	263.706
Arrest Rate for Auto Theft	43616	44.8199	307.5356
Crime Rates are Defined per 100,000 People:			
Crime Rate for Index Crimes	46999	2984.99	3368.85
Crime Rate for Violent Crimes	47001	249.0774	388.7211
Crime Rate for Property Crimes	46999	2736.59	3178.41
Crime Rate for Murder	47001	5.651217	10.63025
Murder Rate for Guns (from 1982 to 1991 in counties over 100,000)	12759	3.9211	6.4756
Crime Rate for Rape	47001	18.7845	32.39292
Crime Rate for Robbery	47001	44.6861	149.2124
Crime Rate for Aggravated Assault	47001	180.0518	243.2615
Crime Rate for Burglary	47001	811.8642	1190.23
Crime Rate for Larceny	47000	1764.37	2036.03
Crime Rate for Auto Theft	47000	160.4165	284.5969
Causes of Accidental Deaths and Murders per 100,000 People:			
Rate of Accidental Deaths from Guns	23278	0.151278	1.216175
Rate of Accidental Deaths from Sources Other than Guns	23278	1.165152	4.342401
Rate of Total Accidental Deaths	23278	51.95058	32.13482
Rate of Murders Using Handgun	23278	0.444301	1.930975
Rate of Murders Using Other Guns	23278	3.477088	6.115275
Income Data (All $ Values in Real 1983 dollars):			
Real Per Capita Personal Income	50011	10554.21	2498.07
Real Per Capita Unemployment Insurance	50011	67.57505	53.10043
Real Per Capita Income Maintenance	50011	157.2265	97.61466
Real Per Capita Retirement Per Over 65	49998	12328.5	4397.49

Population Characteristics:

County Population	50023	75772.78	250350.4
County Population per Square Mile	50023	214.3291	1421.25
State Population	50056	6199949	5342068
State NRA membership per 100,000 State Population	50056	1098.11	516.0701
% of votes Republican in Pres. Election	50056	52.89235	8.410228
% of Pop. Black Male Between 10-19	50023	0.920866	1.556054
% of Pop. Black Female Between 10-19	50023	0.892649	1.545335
% of Pop. White Male Between 10-19	50023	7.262491	1.747557
% of Pop. White Female Between 10-19	50023	6.820146	1.673272
% of Pop. Other Male Between 10-19	50023	0.228785	0.769633
% of Pop. Other Female Between 10-19	50023	0.218348	0.742927
% of Pop. Black Male Between 20-29	50023	0.751636	1.214317
% of Pop. Black Female Between 20-29	50023	0.762416	1.2783
% of Pop. White Male Between 20-29	50023	6.792357	1.991303
% of Pop. White Female Between 20-29	50023	6.577894	1.796134
% of Pop. Other Male Between 20-29	50023	0.185308	0.557494
% of Pop. Other Female Between 20-29	50023	0.186327	0.559599
% of Pop. Black Male Between 30-39	50023	0.539637	0.879286
% of Pop. Black Female Between 30-39	50023	0.584164	0.986009
% of Pop. White Male Between 30-39	50023	6.397395	1.460204
% of Pop. White Female Between 30-39	50023	6.318641	1.422831
% of Pop. Other Male Between 30-39	50023	0.151869	0.456388
% of Pop. Other Female Between 30-39	50023	0.167945	0.454721
% of Pop. Black Male Between 40-49	50023	0.358191	0.571475
% of Pop. Black Female Between 40-49	50023	0.415372	0.690749
% of Pop. White Male Between 40-49	50023	4.932917	1.086635
% of Pop. White Female Between 40-49	50023	4.947299	1.038738
% of Pop. Other Male Between 40-49	50023	0.105475	0.302059
% of Pop. Other Female Between 4049	50023	0.115959	0.304423
% of Pop. Black Male Between 50-64	50023	0.43193	0.708241
% of Pop. Black Female Between 50-64	50023	0.54293	0.921819
% of Pop. White Male Between 50-64	50023	6.459038	1.410181
% of Pop. White Female Between 50-64	50023	6.911502	1.54784
% of Pop. Other Male Between 50-64	50023	0.101593	0.367467
% of Pop. Other Female Between 50-64	50023	0.11485	0.374837
% of Pop. Black Male Over 65	50023	0.384049	0.671189
% of Pop. Black Female O65	50023	0.552889	0.980266
% of Pop. White Male Over 65	50023	5.443062	2.082804
% of Pop. White Female Over 65	50023	7.490128	2.69476
% of Pop. Other Male Over 65	50023	0.065265	0.286597
% of Pop. Other Female Over 65	50023	0.077395	0.264319

Table 3: The Effect of "Shall Issue" Right-to-Carry Firearms Laws on the Crime Rate: National County Level Cross-Sectional Time-Series Evidence (The absolute t-statistics are in parentheses, and the percentage reported below that for some of the numbers is the percent of a standard deviation change in the endogenous variable that can be explained by a one standard deviation change in the exogenous variable. Year and county dummies are not shown. All regressions use weighted least squares where the weighting is each county's population.)

Endogenous Variables: All endogenous variables are the natural logs of the crime rate per 100,000 people

Exogenous Variables	ln(Violent Crime Rate)	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Property Crime Rate)	ln(Burglary Rate)	ln(Larceny Rate)	ln(Auto Theft Rate)
Shall Issue Law Adopted Dummy	-0.0490	-0.0850	-0.0527	-0.0701	-0.0221	0.0269	0.00048	0.03342	0.0714
	(5.017)	(4.650)	(4.305)	(6.137)	(1.661)	(3.745)	(0.063)	(3.763)	(6.251)
	1%	2%	1%	1%	.3%	1%	.02%	1%	1%
Arrest Rate for the crime category appropriate endogenous Variable (e.g., violent crimes, murders, and so on).	-0.00048	-0.00139	-0.00081	-0.000896	-0.00057	-0.000759	-0.0024	-0.00018	-0.00018
	(77.257)	(37.139)	(47.551)	(69.742)	(88.984)	(96.996)	(90.189)	(77.616)	(74.972)
	9%	7%	4%	9%	4%	10%	11%	4%	3%
Population per Square Mile	0.00006	-0.00002	-0.00002	5.76E-06	0.000316	4.83E-06	-0.00007	0.000037	0.00048
	(3.684)	(0.942)	(1.022)	(0.320)	(15.117)	(0.428)	(5.605)	(2.651)	(26.722)
	5%	1%	1%	.4%	17%	1%	9%	4%	36%
Real Per Capita Personal Income	7.92E-06	0.0000163	-5.85E-06	4.71E-06	4.73E-06	-0.0000102	-0.0000184	-0.0000123	0.000015
	(2.883)	(3.623)	(1.669)	(1.467)	(1.244)	(5.118)	(8.729)	(4.981)	(4.689)
	1%	2%	1%	1%	1%	3%	4%	2%	2%
Real Per Capita Unemployment Ins.	-0.00022	-0.00046	-0.00047	-0.00019	0.00007	0.00038	0.00060	0.00019	0.00021
	(3.970)	(5.260)	(6.731)	(2.904)	(0.898)	(9.468)	(14.003)	(3.706)	(3.316)
	.07%	1%	1%	.05%	.01%	2%	3%	.08%	.06%
Real Per Capita Income Maintenance	-0.0000699	0.00025	-0.00017	0.000139	-0.00032	0.00019	0.00039	0.00002	0.00033
	(0.841)	(1.928)	(1.634)	(1.438)	(2.840)	(3.107)	(6.219)	(0.320)	(3.452)
	.3%	1%	.7%	.7%	1%	2%	4%	.1%	2%
Real Per Capita Retirement Payments per person over 65	-1.97E-06	-0.000013	-2.37E-06	-6.81E-06	-5.50E-06	-8.65E-06	-0.0000106	-6.34E-06	-9.27E-06
	(0.895)	(3.713)	(0.861)	(2.651)	(1.835)	(5.371)	(6.273)	(3.186)	(3.613)
	.5%	3%	.4%	2%	1%	4%	7%	2%	2%
Population	8.59E-08	-3.44E-08	-2.94E-07	4.54E-08	-6.10E-08	-2.18E-07	-2.14E-07	-3.10E-07	-4.06E-09
	(4.283)	(1.109)	(11.884)	(1.947)	(2.271)	(15.063)	(14.060)	(17.328)	(0.177)
	1%	.4%	3%	.06%	.06%	6%	5%	6%	.05%
% of Pop Black Male Between 10-19	0.05637	0.1134	0.04108	0.0900695	0.10548	0.1287	0.074	0.1710	0.0513
	(1.293)	(1.515)	(0.722)	(1.767)	(1.752)	(4.068)	(2.214)	(4.366)	(1.007)
	5%	8%	3%	7%	5%	22%	11%	22%	4%
% of Pop Black Male Between 20-29	0.0009	0.0663	0.0794	-0.0528	-0.0060	-0.0143	-0.0203	-0.0057	0.00665
	(0.035)	(1.514)	(2.366)	(1.749)	(0.168)	(0.759)	(1.022)	(0.245)	(0.220)
% of Pop Black Male Between 30-39	0.0419	0.1085	-0.0832	0.2024	0.0061	0.04126	-0.0074	0.0044	0.14955
	(1.063)	(1.640)	(1.617)	(4.424)	(0.111)	(1.445)	(0.246)	(0.124)	(3.254)

Table 3 Continued

Exogenous Variables	ln(Violent Crime Rate)	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Property Crime Rate)	ln(Burglary Rate)	ln(Larceny Rate)	ln(Auto Theft Rate)
% of Pop Black Male Between 40-49	-0.0243 (0.300)	-0.33549 (2.498)	0.9029 (8.562)	-0.3654 (3.860)	-0.00867 (0.077)	-0.02391 (0.406)	-0.03132 (0.506)	0.18939 (2.601)	-0.6846 (7.235)
% of Pop Black Male Between 50-64	0.1816 (2.159)	-0.34753 (2.518)	-0.1509 (1.381)	0.2861 (2.889)	-0.00706 (0.060)	-0.0519 (0.843)	0.09135 (1.409)	-0.1318 (1.730)	0.05626 (0.569)
% of Pop Black Male Over 65	0.12165 (1.377)	-0.14275 (0.971)	0.4373 (3.742)	0.1053 (1.014)	0.17053 (1.379)	-0.0367 (0.567)	0.06132 (0.900)	-0.0965 (1.204)	-0.3384 (3.254)
% of Pop Black Female Between 10-19	-0.00394 (0.088)	0.0374 (0.490)	0.0368 (0.630)	-0.0692 (1.321)	-0.18307 (2.957)	0.0836 (2.570)	0.0217 (0.631)	0.1564 (3.883)	-0.1766 (3.372)
% of Pop Black Female Between 20-29	-0.0993 (3.094)	-0.2247 (4.312)	0.1751 (4.280)	-0.1938 (5.219)	-0.2167 (4.986)	-0.0996 (4.307)	-0.1688 (6.936)	-0.0075 (0.264)	-0.2481 (6.711)
% of Pop Black Female Between 30-39	0.1218 (3.383)	-0.0828 (1.409)	0.1489 (3.228)	0.0947 (2.265)	0.3808 (7.691)	0.13409 (5.137)	0.2721 (9.909)	0.0944 (2.923)	0.1701 (4.072)
% of Pop Black Female Between 40-49	0.0107 (0.158)	0.59197 (5.321)	-0.7396 (8.431)	0.26946 (3.387)	-0.06891 (0.738)	0.05958 (1.213)	-0.05022 (0.970)	-0.0342 (0.562)	0.4816 (6.093)
% of Pop Black Female Between 50-64	-0.2105 (2.826)	0.20188 (1.648)	0.1044 (1.076)	-0.0532 (0.612)	0.07078 (0.684)	-0.0241 (0.443)	-0.21799 (3.817)	0.0100 (0.149)	0.1153 (1.321)
% of Pop Black Female Over 65	-0.2035 (3.229)	0.3071 (2.969)	-0.5164 (6.278)	-0.1557 (2.104)	-0.36915 (4.212)	-0.2035 (4.406)	-0.3877 (7.968)	-0.1234 (2.160)	0.2433 (3.283)
% of Pop White Male Between 10-19	-0.0060 (0.382)	-0.0271 (0.935)	0.0056 (0.265)	0.03998 (2.208)	0.00219 (0.098)	-0.0066 (0.593)	-0.0062 (0.523)	0.00027 (0.020)	-0.0568 (3.152)
% of Pop White Male Between 20-29	0.00842 (0.729)	0.0598 (3.023)	0.03779 (2.528)	0.0219 (1.623)	0.0426 (2.636)	0.00456 (0.542)	0.01738 (1.958)	0.00377 (0.362)	-0.0200 (1.487)
% of Pop White Male Between 30-39	-0.006 (0.322)	-0.01289 (0.371)	-0.0376 (1.444)	0.0739 (3.206)	-0.0706 (2.507)	-0.0520 (3.633)	-0.0268\ (1.779)	-0.0579 (3.268)	-0.0592 (2.583)
% of Pop White Male Between 40-49	-0.0095 (0.375)	-0.02078 (0.462)	0.0898 (2.685)	-0.0406 (1.369)	-0.11188 (3.099)	-0.14626 (7.981)	-0.0995 (5.147)	-0.1271 (5.600)	-0.0962 (3.265)
% of Pop White Male Between 50-64	-0.00575 (0.236)	-0.0458 (1.074)	0.0397 (1.237)	-0.0904 (3.184)	-0.14195 (4.104)	-0.1282 (7.309)	-0.0729 (3.942)	-0.1071 (4.929)	-0.2749 (9.771)

Table 3 Continued

Exogenous Variables	ln(Violent Crime Rate)	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Property Crime Rate)	ln(Burglary Rate)	ln(Larceny Rate)	ln(Auto Theft Rate)
% of Pop White Male Over 65	-0.1291 (6.065)	0.02336 (0.618)	0.0441 (1.547)	-0.1651 (6.627)	0.0421 (1.370)	-0.1442 (7.635)	-0.1194 (8.887)	-0.13975 (6.264)	-0.1104 (5.651)
% of Pop White Female Between 10-19	0.02346 (1.410)	0.0452 (1.473)	0.0741 (3.307)	-0.00863 (0.448)	0.0561 (2.359)	0.0824 (6.907)	0.0816 (6.474)	0.0865 (5.863)	0.0866 (4.513)
% of Pop White Female Between 20-29	0.0128 (0.896)	-0.0405 (1.673)	0.0551 (2.999)	0.03926 (2.348)	0.01327 (0.669)	-0.0086 (0.828)	-0.0421 (3.832)	0.02928 (2.272)	-0.0289 (1.739)
% of Pop White Female Between 30-39	0.01878 (0.890)	0.0447 (1.209)	0.14127 (5.092)	0.0299 (1.215)	-0.0079 (0.265)	0.0388 (2.545)	0.0171 (1.065)	0.06611 (3.502)	-0.1017 (4.165)
% of Pop White Female Between 40-49	-0.0901 (3.553)	-0.00077 (0.017)	-0.0689 (2.061)	-0.0031 (0.106)	-0.02258 (0.626)	0.0584 (3.193)	-0.0354 (1.833)	0.0741 (3.270)	-0.0172 (0.585)
% of Pop White Female Between 50-64	0.00332 (0.163)	0.0119 (0.335)	0.0213 (0.794)	0.07882 (3.313)	0.03094 (1.072)	0.1044 (7.103)	0.06396 (4.126)	0.1100 (6.042)	0.10687 (4.534)
% of Pop White Female Over 65	0.0558 (3.719)	-0.0681 (2.588)	0.0578 (2.904)	0.0836 (4.761)	-0.0870 (4.046)	0.02027 (1.867)	0.0483 (4.218)	0.03631 (2.701)	-0.0459 (2.636)
% of Pop Other Male Between 10-19	0.2501 (2.179)	0.6624 (3.022)	0.5572 (3.546)	0.1872 (1.389)	0.5360 (3.124)	0.1587 (1.917)	0.2708 (3.100)	0.1487 (1.451)	0.6039 (4.532)
% of Pop Other Male Between 20-29	-0.1229 (1.966)	0.14495 (1.367)	-0.1656 (2.065)	-0.0573 (0.794)	0.0129 (0.149)	0.0786 (1.748)	0.0007 (0.015)	0.2037 (3.661)	-0.4066 (5.667)
% of Pop Other Male Between 30-39	0.23126 (1.866)	-0.2958 (1.370)	-0.1907 (1.161)	0.4015 (2.777)	-0.1021 (0.572)	-0.1779 (1.996)	-0.4257 (4.532)	-0.0415 (0.376)	0.64667 (4.525)
% of Pop Other Male Between 40-49	0.12678 (0.824)	-0.35775 (1.341)	-0.2406 (1.180)	-0.1903 (1.060)	0.77753 (3.538)	0.0287 (0.261)	0.2356 (2.027)	-0.2320 (1.700)	0.4640 (2.620)
% of Pop Other Male Between 50-64	-0.0904 (0.605)	-0.1572 (0.623)	0.2403 (1.240)	-0.2829 (1.612)	-0.39616 (1.869)	-0.0211 (0.194)	0.2676 (2.330)	-0.1952 (1.449)	-0.4198 (2.411)
% of Pop Other Male Over 65	0.3469 (2.222)	-0.2585 (1.019)	0.8709 (4.389)	1.0193 (5.566)	-0.267 (1.237)	-0.0785 (0.688)	0.1863 (1.549)	-0.2342 (1.659)	-0.1792 (0.985)
% of Pop Other Female Between 10-19	-0.0303 (0.253)	-0.7299 (3.185)	-0.1095 (0.670)	0.1207 (0.857)	-0.3461 (1.936)	-0.1769 (2.049)	-0.2861 (3.140)	-0.2304 (2.155)	-0.2739 (1.971)

Table 3 Continued

Exogenous Variables	ln(Violent Crime Rate)	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Property Crime Rate)	ln(Burglary Rate)	ln(Larceny Rate)	ln(Auto Theft Rate)
% of Pop Other Female Between 20-29	-0.1323 (1.253)	-0.3293 (2.145)	0.2093 (1.670)	0.0933 (0.557)	-0.3033 (1.535)	-0.1464 (1.849)	-0.3243 (3.366)	-0.3334 (2.435)	-0.5646 (4.768)
% of Pop Other Female Between 30-39	-0.2187 (1.823)	-0.1103 (0.531)	0.1556 (0.988)	-0.1674 (1.189)	-0.2158 (1.253)	-0.0874 (1.005)	0.2703 (2.949)	-0.2838 (2.638)	-0.7516 (5.395)
% of Pop Other Female Between 40-49	-0.1413 (1.011)	0.56562 (2.343)	0.07877 (0.429)	0.1831 (1.116)	-0.48132 (2.407)	0.2452 (2.432)	-0.2767 (2.600)	0.6971 (5.574)	-0.1461 (0.901)
% of Pop Other Female Between 50-64	-0.0972 (0.607)	0.4354 (1.612)	-0.6588 (3.184)	-0.2700 (1.439)	0.36585 (1.620)	-0.0491 (0.424)	-0.4901 (4.006)	0.1615 (1.125)	0.3078 (1.659)
% of Pop Other Female Over 65	-0.4376 (3.489)	0.0569 (0.277)	-0.3715 (2.324)	-0.4428 (3.012)	-0.3596 (2.058)	-0.1052 (1.148)	-0.1408 (1.458)	-0.0478 (0.422)	-0.587 (4.020)
Intercept	5.8905 (15.930)	2.0247 (3.326)	0.4189 (0.890)	4.2648 (9.857)	5.4254 (10.623)	9.1613 (33.945)	8.7058 (30.614)	7.596 (22.751)	8.332 (19.372)
Observations =	43451	26458	33865	43445	34949	45940	45769	45743	43589
F-statistic =	115.11	37.95	44.93	70.47	131.75	87.22	82.16	59.33	116.35
Adjusted R^2 =	0.8925	0.8060	0.8004	0.8345	0.9196	0.8561	0.8490	0.8016	0.8931

Table 4: Questions of Aggregating the Data: National State Level Cross-Sectional Time-Series Evidence (Except for the use of state dummies in place of county dummies, the control variables are the same as those used in Table 3 including year dummies, though they are not all reported. Absolute t-statistics are in parentheses, and the percentage reported below that for some of the numbers is the percent of a standard deviation change in the endogenous variable that can be explained by a one standard deviation change in the exogenous variable. All regressions use weighted least squares where the weighting is each state's population)

Exogenous Variables	ln(Violent Crime Rate)	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Property Crime Rate)	ln(Burglary Rate)	ln(Larceny Rate)	ln(Auto Theft Rate)
Shall Issue Law Adopted Dummy	-0.1447	-0.0962	-0.0883	-.04468	-0.1372	-0.0527	-.1076	-0.0416	-0.045097
	(4.025)	(2.206)	(1.468)	(4.003)	(2.852)	(1.942)	(3.268)	(1.598)	(1.056)
	7.6%	4.9%	4.7%	8.2%	5.3%	4.1%	7.9%	3.4%	2%
Arrest Rate for the crime category corresponding to the appropriate endogenous variable.	-0.000548	-0.000643	-0.000326	-0.002398	-0.009559	-0.00144	-0.002145	-0.005051	-0.001060
	(2.035)	(3.810)	(3.8130)	(5.566)	(15.679)	(4.431)	(4.674)	(4.385)	(3.078)
	1.6%	4.6%	3.9%	5.6%	12.7%	1.3%	1.8%	5.5%	4.5%
Intercept	2.9217	0.3820	3.3256	3.0062	0.7310	10.2591	8.5195	9.9704	8.1055
	(1.479)	(0.159)	(1.000)	(1.457)	(0.276)	(6.881)	(4.687)	(6.973)	(3.446)
Observations =	810	808	807	810	810	810	810	810	810
F-statistic =	137.38	100.896	58.523	119.518	154.604	58.612	60.234	59.948	176.584
Adjusted R^2 =	0.9483	0.9309	0.8860	0.9410	0.9539	0.8857	0.8885	0.8880	0.9594

Table 5: The Effect of Concealed Handguns on Victim Costs: What if All States Had Adopted "Shall Issue" Laws
(Using Miller et. al.'s 1996 estimates of the costs of crime in 1992 dollars)

	Change in number of crimes if the states without "Shall Issue Laws" in 1992 had adopted the law		Change in Victim Costs from if the states without "Shall Issue Laws" in 1992 had adopted the law	
Crime Category	Estimates Using County Level Data	Estimates Using State Level Data	Estimates Using County Level Data	Estimates Using State Level Data
Murder	-1,570	-1,777	-$4,753,977,904	-$5,379,921,760
Rape	-4,177	-7,000	-$374,277,659	-$627,205,629
Aggravated Assault	-60,363	-128,906	-$1,405,042,403	-$3,000,497,114
Robbery	-11,898	-73,865	-$98,033,414	-$608,605,630
Burglary	1,052	-235,823	$1,516,890	-$340,036,068
Larceny	191,743	-238,674	$73,068,706	-$90,953,267
Auto Theft	89,928	-56,799	$342,694,264	-$216,449,345
Total Change in Victim Costs			**-$6,214,051,520**	**-$10,263,669,813**

Table 6: Questions of Aggregating the Data: Does Law Enforcement and "Shall Issue" Laws have the Same Effect in High and Low Crime Areas? (The control variables are the same as those used in Table 3 including year and county dummies, though they are not reported. Absolute t-statistics are in parentheses. All regressions use weighted least squares where the weighting is each state's population)

A) Sample Where County Crime Rates are Above the Median

Exogenous Variables	ln(Violent Crime Rate)	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Property Crime Rate)	ln(Burglary Rate)	ln(Larceny Rate)	ln(Auto Theft Rate)
Shall Issue Law Adopted Dummy	-0.0597 (7.007)	-0.1021 (7.870)	-0.0719 (7.415)	-.04468 (4.411)	-0.0342 (3.012)	0.0161 (2.943)	0.0036 (0.533)	0.0296 (5.474)	0.0524 (5.612)
Arrest Rate for the crime category corresponding to the appropriate endogenous variable.	-0.000523 (-17.661)	-0.00105 (29.291)	-0.000326 (3.8130)	-0.00063 (18.456)	-0.00294 (9.381)	-0.005354 (33.669)	-0.00565 (27.390)	-0.00596 (41.585)	-0.00133 (11.907)

B) Sample Where County Crime Rates are Below the Median

Exogenous Variables	ln(Violent Crime Rate)	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Property Crime Rate)	ln(Burglary Rate)	ln(Larceny Rate)	ln(Auto Theft Rate)
Shall Issue Law Adopted Dummy	-0.0369 (1.934)	-0.0761 (1.753)	-0.0304 (0.978)	-0.0025 (0.013)	-0.0787 (2.978)	0.0881 (5.801)	0.0297 (2.110)	0.0874 (5.246)	0.07226 (3.276)
Arrest Rate for the crime category corresponding to the appropriate endogenous variable.	-0.0005242 (30.302)	-0.0008799 (11.647)	-0.000656 (31.542)	-.00068 (37.306)	-0.0003699 (9.018)	-0.001354 (39.101)	-0.0027135 (41.603)	-0.000998 (37.559)	-0.0001412 (62.596)

Table 7: Controlling for the fact that Larger Changes in Crime Rates are Expected in the More Populous Counties Where the Change in the Law Constituted a Bigger Break with Past Policies (The control variables are the same as those used in Table 3 including year and county dummies, though they are not reported since the coefficient estimates are very similar to those reported earlier. Absolute t-statistics are in parentheses. All regressions use weighted least squares where the weighting is each county's population)

Exogenous Variables	ln(Violent Crime Rate)	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Property Crime Rate)	ln(Burglary Rate)	ln(Larceny Rate)	ln(Auto Theft Rate)
Shall Issue Law Adopted Dummy *County Population	-9.41E-08 (6.001)	-2.07E-07 (7.388)	-7.83E-08 (4.043)	-1.06E-07 (5.784)	-2.29E-08 (1.295)	5.18E-08 (4.492)	6.96E-09 (0.572)	4.90E-08 (3.432)	1.40E-07 (7.651)
Arrest Rate for the crime category corresponding to the appropriate endogenous variable.	-0.000475 (77.222)	-0.00139 (37.135)	-0.000807 (47.535)	-0.000895 (69.663)	-0.000575 (88.980)	-0.000759 (97.027)	-0.002429 (90.185)	-0.000177 (77.620)	-0.0001754 (75.013)
Observations =	43451	26458	33865	43445	34949	45940	45769	45743	43589
F-statistic =	115.15	38.02	44.92	70.46	131.74	87.23	82.16	59.33	116.41
Adjusted R^2 =	0.8925	0.8062	0.8004	0.8345	0.9196	0.8561	0.8490	0.8016	0.8931

Implied Percent Change in Crime Rate: The Effect of the "Shall Issue" Interaction Coefficient Evaluated at Different Levels of County Populations

Population	Violent Crimes	Murder	Rape	Aggravated Assault	Robbery	Property Crimes	Auto Theft	Burglary	Larceny
1/2 Mean 37,887	-.36%	-.78%	-.3%	-.4%	-.1%	.2%	.03%	.2%	.5%
Mean 75,773	-.71	-1.6	-.6	-.8	-.2	.4	.05	.4	1.1
Plus 1 Standard Dev. 326,123	-3.1	-6.8	-2.6	-3.5	-.7	1.7	.23	1.6	4.6
Plus 2 Standard Dev. 576,474	-5.4	-11.9	-4.5	-6.1	-1.3	2.99	.4	2.8	8.1

Percent of a one standard deviation change in corresponding crime rate that can be explained by a one standard deviation change in the arrest rate for that crime.

Violent Crimes	Murder	Rape	Aggravated Assault	Robbery	Property Crimes	Auto Theft	Burglary	Larceny
9%	7%	4%	9%	4%	10%	11%	4%	3%

Table 8: Using Other Crime Rates that are Relatively Unrelated to Changes in "Shall Issue" Rules as an Method of Controlling for Other Changes in the Legal Environment: Controlling for Robbery and Burglary Rates (While not all the coefficient estimates are reported, all the control variables are the same as those used in Table 3, including year and county dummies. Absolute t-statistics are in parentheses. All regressions use weighted least squares where the weighting is each county's population. Net violent and property crime rates are respectively net of robbery and burglary crime rates to avoid producing any artificial collinearity. Likewise, the arrest rates for those values subtract out that portion of the corresponding arrest rates do to arrests for robbery and burglary.)

Endogenous Variables

Controlling for Robbery Rates

Exogenous Variables	ln(Net Violent Crime Rate)	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Property Crime Rate)	ln(Burglary Rate)	ln(Larceny Rate)	ln(Auto Theft Rate)
Shall Issue Law Adopted Dummy *County Population	-1.03E-07 (6.318)	-1.72E-07 (7.253)	-7.73E-08 (4.049)	-1.03E-07 (5.777)	. . .	5.61E-08 (5.206)	-3.50E-09 (0.304)	5.35E-08 (3.911)	1.47E-07 (8.844)
Arrest Rate for the crime category corresponding to the appropriate endogenous variable.	-0.0003792 (57.644)	-0.0013449 (36.240)	-0.00073 (42.672)	-0.000776 (60.834)	. . .	-0.0006448 (86.517)	-0.0020339 (77.992)	-0.0001547 (69.968)	-0.0001382 (63.888)
Ln(Robbery Rate)	0.1083118 (46.370)	0.116406 (24.616)	0.0983088 (30.363)	0.1196466 (47.469)	. . .	0.1176149 (78.825)	0.1135451 (70.826)	0.1164045 (61.762)	0.2173908 (92.212)
Observations =	43197	26458	33865	43445	. . .	45940	45769	45743	43589
F-statistic =	81.93	39.19	46.55	75.09	. . .	101.83	93.39	65.82	143.54
Adjusted R^2 =	0.8555	0.8111	0.8062	0.8433	. . .	0.8744	0.8649	0.8179	0.9117

Controlling for Burglary Rates

Exogenous Variables	ln(Violent Crime Rate)	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Net Prop. Crime Rate)	ln(Burglary Rate)	ln(Larceny Rate)	ln(Auto Theft Rate)
Shall Issue Law Adopted Dummy *County Population	-9.52E-08 (6.937)	-1.73E-07 (7.434)	-8.03E-08 (4.356)	-1.03E-07 (6.072)	-1.47E-08 (0.759)	7.23E-08 (6.854)	. . .	5.50E-08 (4.769)	1.45E-07 (8.943)
Arrest Rate for the crime category corresponding to the appropriate endogenous variable.	-0.00026 (44.982)	-0.00128 (35.139)	-0.00051 (30.010)	-0.00054 (42.883)	-0.000429 (69.190)	-0.000469 (61.478)	. . .	-0.000102 (53.545)	-0.000116 (53.961)
Ln(Burglary Rate)	0.5667123 (110.768)	0.4459916 (37.661)	0.4916113 (56.461)	0.5302516 (83.889)	0.6719892 (78.531)	0.5773792 (155.849)	. . .	0.6009071 (150.635)	0.6416852 (106.815)
Observations =	43451	26458	33865	43445	34949	45813	. . .	45743	43589
F-statistic =	154.04	40.78	50.59	84.97	159.18	123.99	. . .	98.08	152.82
Adjusted R^2 =	0.9176	0.8173	0.8191	0.8591	0.9327	0.8949	. . .	0.8706	0.9167

Table 9: Rerunning the Regressions on Differences (The variables for income; population; racial, sex, and age compositions of the population; and density are all in terms of first differences. While not all the coefficient estimates are reported, all the control variables used in Table 3 are used here, including year and county dummies. Absolute t-statistics are in parentheses. All regressions use weighted least squares where the weighting is each county's population.)

All Endogenous Variables are in Terms of First Differences

All Variables Except for the "Shall Issued" Dummy Differenced:

Exogenous Variables	Δln(Violent Crime Rate)	Δln(Murder Rate)	Δln(Rape Rate)	Δln(Aggravated Assault Rate)	Δln(Robbery Rate)	Δln(Property Crime Rate)	Δln(Burglary Rate)	Δln(Larceny Rate)	Δln(Auto Theft Rate)
Shall Issue Law Adopted Dummy	-0.021589	-0.025933	-.052034	-.0456251	.0331607	.0526532	.0352582	.0522435	.128475
	(1.689)	(0.841)	(2.761)	(2.693)	(1.593)	(4.982)	(3.16)	(4.049)	(5.324)
First Differences in the Arrest Rate for the crime category corresponding to the appropriate endogenous variable.	-.0004919	-.0015482	-.0008641	-.0009272	-.0005725	-.0007599	-.0024482	-.0001748	-.0001831
	(75.713)	(25.967)	(46.509)	(67.782)	(82.38)	(91.259)	(88.38)	(75.969)	(53.432)
Intercept	-.073928	-.0402018	-.014342	-.0522417	-.1203331	-.0952347	-0770997	-.1062443	-.2604944
	(6.049)	(1.554)	(0.904)	(3.68)	(6.925)	(10.8)	(8.312)	(9.872)	(13.009)
Observations =	37611	20420	26269	37694	27999	40901	40686	40671	37581
F-statistic =	3.80	0.69	2.56	4.03	4.05	4.36	6.62	3.1	10.34
Adjusted R^2 =	0.1867	-0.0379	0.1389	0.1972	0.2283	0.2047	.3018	0.1386	0.4338

All Variables Differenced:

Exogenous Variables	Δln(Violent Crime Rate)	Δln(Murder Rate)	Δln(Rape Rate)	Δln(Aggravated Assault Rate)	Δln(Robbery Rate)	Δln(Property Crime Rate)	Δln(Burglary Rate)	Δln(Larceny Rate)	Δln(Auto Theft Rate)
First Differences in the Shall Issue Law Adopted Dummy	-0.026959	-0.0363798	-.0394318	-0.0540946	.0071132	.0481937	.0072487	.0623146	.2419118
	(2.57)	(1.826)	(2.887)	(4.414)	(0.471)	(6.303)	(0.898)	(6.676)	(13.884)
First Differences in the Arrest Rate for the crime category corresponding to the appropriate endogenous variable.	-.0004919	-.0015481	-.0008642	-.0009275	-.0005724	-.0007598	-.002448	-.0001748	-.0001829
	(75.728)	(25.968)	(46.519)	(67.819)	(82.371)	(91.266)	(88.362)	(75.978)	(53.495)
Intercept	-.0758797	-.042305	-.0188927	-.0562624	-.1176478	-.0907433	-.0742121	-.1016434	-.248623
	(6.241)	(1.642)	(1.196)	(3.983)	(6.801)	(10.341)	(8.038)	(9.494)	(12.506)
Observations =	37611	20420	26269	37694	27999	40901	40686	40671	37581
F-statistic =	3.8	0.69	2.56	4.04	4.05	4.37	6.62	3.11	10.45
Adjusted R^2 =	0.1868	-0.0378	0.1389	0.1975	0.2282	0.205	.3016	0.1393	0.4365

Table 10: Allowing the Change in the "Shall Issue" Law and the Arrest Rate to be Endogenous Using 2SLS (While not all the coefficient estimates are reported, all the control variables are the same as those used in Table 3, including year and county dummies. Absolute t-statistics are in parentheses, and the percentage reported below that for some of the numbers is the percent of a standard deviation change in the endogenous variable that can be explained by a one standard deviation change in the exogenous variable.)

Endogenous Variables are in Crimes per 100,000 Population

Exogenous Variables	ln(Violent Crime Rate)	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Property Crime Rate)	ln(Auto Theft Rate)	ln(Burglary Rate)	ln(Larceny Rate)
A) Using the predicted values of arrest rates similar to Ehrlich's (1973) study									
Shall Issue Law Adopted Dummy	-1.262	-1.1063	-1.059	-1.3192	-0.8744	-1.1182	-0.7668	-0.7603	-1.122
	(21.731)	(5.7598)	(-4.4884)	(18.5277)	(7.4979)	(15.3716)	(11.435)	(19.328)	(25.479)
	10.5%	7.5%	6.4%	10.1%	4.9%	7.67%	11.4%	10.6%	13.5%
Arrest Rate for the crime category corresponding to the	-0.002324	-0.00094	-0.0359	-0.002176	-0.00241	-0.01599	-0.002759	-0.01783	-0.0124
	(9.6892)	(1.8436)	(9.667)	(7.1883)	(4.481)	(33.26)	(2.989)	(14.36)	(31.814)
appropriate endogenous variable.	60.7%	5.2%	60.1%	44.6%	36.9%	80.1%	21.3%	79.6%	80.6%
Observations =	31129	31129	31129	31129	31129	31129	31129	31129	31129
F-statistic =	61.97	19.07	22.3	39.81	63.71	60.78	84.21	46.48	38.37
Adjusted R^2 =	0.8592	0.644	0.6807	0.7953	0.8626	0.8568	0.8893	0.8199	0.7891
B) Including the change in crime rates when estimating the predicted values of the arrest rates									
Shall Issue Law Adopted Dummy	-.26104	-.5732	-.1992	-.29881	-.0054	-.20994	-.2774	-.1153	-.2623
	(20.12)	(18.21)	(9.6317)	(15.4465)	(0.2935)	(29.4242)	(32.5051)	(13.397)	(32.4253)
	2.2%	3.9%	1.2%	2.3%	0.3%	3.3%	2.1%	1.6%	3.2%
Arrest Rate for the crime category corresponding to the	-0.007827	-0.024	-0.02626	-0.01028	-0.00716	-0.00933	-0.01233	-0.03839	-0.0101
	(746.74)	(687.7)	(1047)	(582)	(901.8)	(820.7)	(1242.7)	(796.8)	(956.14)
appropriate endogenous variable.	104%	95%	117%	88%	109%	95%	95.1%	71%	101%
Observations =	31129	31129	31129	31129	31129	31129	31129	31129	31129
F-statistic =	1723	1260.9	4909.6	797.5	3614.86	1671.49	6424	1389	1625.8
Adjusted R^2 =	0.9942	0.9921	0.9980	0.9876	0.9972	0.9941	0.9984	0.9929	0.9939

Table 10 continued

First stage estimates of Shall Issue Law (Absolute t-statistics are in parentheses. The sample is limited because the data on police employment used in producing the predicted arrest rates were only available from 1982 to 1992. While the estimates from the first specification were used in the above regressions, the logit estimates are provided for comparison. Not all the variables that were controlled for are shown. These additional variables included: year and regional dummies (South, Northeast, and Midwest) and the state's population.)

	Exogenous Variables										
Endogenous Variable	ln(Violent Crime Rate)	Δln(Violent Crime Rate)	ln(Prop. Crime Rate)	Δln(Prop. Crime Rate)	Nat Rifle Assoc. Membership as % of State Pop	% Rep. Pres. in State Vote 80*Year Dum 79-82	% Rep. Pres. in State Vote 84*Year Dum 83-86	% Rep. Pres. in State Vote 88*Year Dum 87-90	% Rep. Pres. in State Vote 92*Yr Dum 91-92	% Pop. Black for State	% Pop. White for State
Least Squares Estimate											
(1) Shall Issue Law	-.01817 (9.710)	.00825 (5.031)	-.02889 (8.748)	.0094 (2.577)	.000107 (19.383)	.0061 (5.485)	.0034 (4.986)	.01702 (22.844)	.0299 (27.317)	.00518 (13.06)	.0031 (8.470)
		F-statistic = 209.85		adjusted-R^2 = .1436		Obs. = 31137					
Logit											
(2) Shall Issue Law	-.0797 (6.003)	.038249 (3.294)	-.2095 (8.657)	.08119 (3.121)	.0004344 (10.329)	.0567 (6.227)	.01456 (2.437)	.09976 (16.203)	.12249 (16.273)	.0409 (10.090)	.0364 (9.131)
		Chi-squared = 5007.44		Pseudo R^2 = .1687		Obs. = 31137					

First stage estimates of the Probability of Arrest Using: Reporting only the estimates for violent and property crime rates (Absolute t-statistics are in parentheses. The sample is limited because the data on police employment were only available from 1982 to 1992. Not all the variables that were controlled for are shown. These additional variables included: the number of police with arrest powers divided by the number of violent crimes; the number of police with arrest powers divided by the number of property crimes; the number of police without arrest powers divided by the number of violent crimes; the number of police without arrest powers divided by the number of property crimes; these preceding variables using payrolls; the breakdown of the county's population by age, sex, and race used in Table 3; year and county dummies; the measures of income reported in Table 3; and the state's population. The estimates also using the change in crime rates are available from the authors.)

	Exogenous Variables									
Endogenous Variable	ln(Violent Crime Rate) lagged	ln(Property Crime Rate) lagged	# of Police in St. Employed with power of arrest/ State population	# of Police in St. Employed without power of arrest/ State population	Nat Rifle Assoc. Membership as % of State Pop	Population Density per square mile	% Rep. Pres. in State Vote 80*Year Dum 79-82	% Rep. Pres. in State Vote 84*Year Dum 83-86	% Rep. Pres. in State Vote 88*Year Dum 87-90	% Rep. Pres. in State Vote 92*Yr Dum 91-92
A) The predicted values of arrest rates that most closely correspond to Ehrlich's (1973) 2SLS estimates										
(1) Arrest Rate for	-2.224 (1.441)	. . .	-14093.61 (3.065)	95.085 (2.206)	.01463 (1.940)	.0739 (6.418)	-6.936 (9.975)	-4.293 (8.270)	-3.3467 (5.865)	-3.4316 (4.967)
Violent Crimes		F-statistic = 1.83		adjusted-R^2 = .0814		Obs. = 28954				
(2) Arrest Rate for	. . .	.90203 (0.738)	-2805.2 (1.173)	-1.3057 (0.059)	.01045 (1.305)	.00415 (0.697)	-1.5931 (4.434)	-.9155 (3.420)	-1.1778 (4.004)	-1.2009 (3.416)

roperty Crimes	F-statistic = 1.08	adjusted-R^2 = .0084	Obs. = 30814

3) Including the change in crime rates in addition to those already noted when estimating the predicted values of the arrest rates (the coefficients on the percentage of the state voting Republican in presidential elections is similar to those reported in the preceding section).

Endogenous Variable	Exogenous Variables: ln(Violent Crime Rate) lagged	Δln(Violent Crime Rate)	ln(Property Crime Rate) lagged	Δln(Property Crime Rate)	# of Police in St. Employed with power of arrest/ State population	# of Police in St. Employed without power of arrest/ State population	Nat Rifle Assoc. Membership as % of State Population	Density per square mile	County Population
A) The predicted values of arrest rates that correspond to Ehrlich's (1973) 2SLS estimates									
(1) Arrest Rate for Violent Crimes	-128.4 (39.86)	-123.64 (44.17)	. . .	. . .	-12194 (2.750)	96.3244 (2.317)	.0009 (0.060)	.0646 (5.824)	-.0000726 (4.877)
		F-statistic = 2.59		adjusted-R^2 = .1458		Obs. = 28954			
(2) Arrest Rate for Property Crimes	. . .	. . .	-109.69 (49.342)	-106.92 (58.21)	-1394 (0.618)	-1.9891 (0.095)	-.0072 (0.949)	.0083 (1.473)	-.0000111 (1.522)
		F-statistic = 2.30		adjusted-R^2 = .1165		Obs. = 30814			

Table 11: Changes in Murder Methods for Counties Over 100,000 from 1982 to 1991 (While not all the coefficient estimates are reported, all the control variables are the same as those used in Table 3, including the year and county dummies. Absolute t-statistics are in parentheses. All regressions use weighted least squares where the weighting is each county's population. The first column uses the UCR numbers for counties over 100,000, while the second column uses the numbers on total gun deaths available from the Mortality Detail Records and the third column takes the difference between the UCR numbers for total murders and Mortality Detail Records of gun deaths.)

Endogenous Variables are in Murders per 100,000 Population

Exogenous Variables	ln(Total Murders)	ln(Murder with Guns)	ln(Murders by Nongun Methods)
Shall Issue Law Adopted Dummy	-.09704 (3.183)	-.09045 (1.707)	-.08854 (1.689)
Arrest Rate for Murder	-.00151 (26.15)	-.00102 (6.806)	-.00138 (7.931)
Intercept	.63988 (0.436)	-8.7993 (2.136)	-7.51556 (2.444)
Observations =	12740	12759	8712
F-statistic =	21.40	6.60	4.70
Adjusted R^2 =	0.8127	0.5432	0.5065

Table 12: Changes in Composition of Murder Victims Using Annual State Level Data from the Uniform Crime Reports Supplementary Homicide Reports from the period 1977 to 1992 (While not all the coefficient estimates are reported, all the control variables are the same as those used in Table 4, including the year and state dummies. Absolute t-statistics are in parentheses. All regressions use weighted least squares where the weighting is each state's population.)

Endogenous Variables are in Percentage Points

	By Victim's Sex			By Victim's Race			By Victim's Relationship With Offender			
Exogenous Variables	% of Victims Male	% of Victims Female	% of Victims Sex is not Identified	% of Victims that are White	% of Victims that are Black	% of Victims that are Hispanic	% of Victims where the Offender is Known to Victim but is not in Family	% of Victims where the Offender is in the Family	% of Victims where the Offender is a Stranger	% Victims where the relationship Unkown
Shall Issue Law Adopted Dummy	0.3910 (0.388)	-.4381 (0.439)	0.0476 (0.399)	0.0137 (0.017)	0.7031 (0.575)	-.8659 (0.609)	2.5824 (1.567)	-.2503 (0.210)	0.5438 (0.459)	-2.8755 (1.464)
Arrest Rate for Murder	0.00068 (0.141)	-.001385 (0.289)	0.000703 (1.227)	-.0202 (2.316)	0.0132 (2.244)	0.00327 (0.478)	0.0174 (2.198)	-.0145 (2.541)	0.0079 (1.394)	-.0108 (1.141)
Intercept	102.20 (1.718)	-3.2763 (0.056)	1.0558 (0.150)	152.19 (1.418)	-30.948 (0.428)	-7.7863 (0.093)	-73.4677 (0.755)	165.1719 (2.345)	89.843 (165.17)	-81.55 (0.703)
Observations =	804	804	804	804	804	804	804	804	804	804
F-statistic =	14.27	14.51	1.06	45.47	125.09	35.94	14.96	12.87	7.84	26.06
Adjusted R^2 =	0.6409	0.6450	0.0077	0.8568	0.9435	0.8245	0.6525	0.6150	0.4790	0.7712

Table 13: Oregon, Pennsylvania, and Arizona Sample Means and Standard Deviations

	Oregon			Pennsylvania			Arizona		
Variable:	Obs.	Mean	St. Dev.	Obs.	Mean	St. Dev.	Obs.	Mean	St. Dev.
Gun Ownership Information:									
Shall Issue Dummy	576	0.1875	0.39065	1072	0.24627	0.4310	90	.33333	.47404
Change in the (number of Right-to-carry Pistol Permits/Population 21 and over) between 1988 and each year since the Law was implemented, otherwise zero	576	0.02567	0.13706	1072	0.46508	1.2365	90	2.1393	15.02066
Arrests Rates are the ratio of arrests to offenses for a particular crime category:									
Arrest Rate for Violent Crimes	567	66.17437	49.2031	1072	55.0738	21.1293			
Arrest Rate for Murder	368	100.8344	97.2253	801	92.2899	64.0169			
Arrest for Rape	507	37.80920	37.8298	1031	52.5967	32.8287			
Arrest for Aggravated Assault	558	76.37541	62.5568	1070	57.4422	25.6491			
Arrest Rate for Robbery	490	50.98248	53.2559	999	53.5970	49.3320			
Arrest Rate for Property Crimes	576	21.95107	7.90548	1072	21.0539	7.12458			
Arrest Rate for Auto Theft	566	57.17941	99.6343	1069	36.6929	63.9266			
Arrest Rate for Burglary	576	18.99394	11.0296	1072	18.8899	8.50639			
Arrest Rate for Larceny	576	21.71564	8.21388	1072	22.0378	7.47778			
Conviction Rates are the ratio of convictions to arrests for a particular crime category (for Arizona it is the ratio of convictions to offenses):									
Conviction Rate for Violent Crime	542	25.93325	40.5691				90	16.0757	33.85482
Conviction Rate for Murder	358	94.42969	107.128				90	111.8722	107.9311
Conviction for Rape	444	161.7508	215.635				90	47.4365	81.42314
Conviction for Aggravated Assault	536	2.505037	5.61042				90	9.204778	13.66225
Conviction Rate for Robbery	420	38.51352	49.9308				90	17.09185	39.17454
Conviction Rate for Property Crime	555	6.530883	13.8484				90	1.370787	1.432515
Conviction Rate for Auto Theft	539	10.1805	14.3673				90	1.175114	3.671085
Conviction Rate for Burglary	544	15.56064	17.7937				90	2.534157	3.4627
Conviction Rate for Larceny	552	2.577337	11.3266				90	1.070667	1.308081
Prison Sentence in Months (Oregon) or Years (Arizona):									
Prison Term Rate for Murder	327	301.6697	164.55				90	16.0557	7.31179
Prison Term for Rape	443	103.2212	50.4662				90	8.761905	5.974623
Prison Term for Aggravated Assault	241	154.4647	79.7893				90	4.28876	1.874496
Prison Term Rate for Robbery	364	106.8709	55.4847				90	6.852239	3.108169
Prison Term Rate for Auto Theft	405	43.40494	20.7846				90	1.415	.3308054
Prison Term Rate for Burglary	489	65.17791	32.2003				90	3.937647	1.03187
Prison Term Rate for Larceny	424	46.42925	19.0075				90	66.64444	145.6599

Crime Rates are Defined per 100,000 People:

Crime Rate for Violent Crimes	576	4079.07	1621.53	1072	2281.56	967.430	90	429.2972	254.1692
Crime Rate for Murder	576	4.52861	6.67245	1072	3.01319	4.12252	90	5.778778	4.413259
Crime Rate for Rape	576	31.4474	25.4623	1072	15.9726	11.6156	90	23.5	18.90888
Crime Rate for Aggravated Assault	576	196.192	152.965	1072	107.332	78.5966	90	339.2977	200.0264
Crime Rate for Robbery	576	50.5625	89.5707	1072	45.2030	86.7830	90	60.72056	71.75822
Crime Rate for Property Crimes	576	282.666	230.421	1072	171.485	156.683	90	4147.692	2282.633
Crime Rate for Auto Theft	576	228.403	157.204	1072	160.831	162.572	90	351.3749	339.0281
Crime Rate for Burglary	576	1089.5	495.926	1072	753.668	535.022	90	950.7187	563.3711
Crime Rate for Larceny	576	2761.17	1098.06	1072	1367.06	569.563	90	2845.597	1569.837

Income Data (All $ Values in Real 1983 dollars):

Real Per Capita Personal Income	576	11389.39	1630.47	1072	11525	2099.44
Real Per Capita Unemployment Ins.	576	108.8037	45.9864	1072	130.560	64.0694
Real Per Capita Income Maintenance	576	131.4323	40.3703	1072	149.652	69.5516
Real Per Capita Retirement Per Over 65	576	12335.17	1278.18	1072	13398.9	2253.29

Population Characteristics:

County Population	576	74954.98	112573.3	1072	177039	274289.9
County Population per Square Mile	576	77.46861	219.7100	1072	453.549	1516.16
% of Pop. Black Male Under 10	576	0.051847	0.092695	1072	0.2089	0.439286
% of Pop. Black Female Under 10	576	0.049275	0.089665	1072	0.2018	0.434456
% of Pop. White Male Under 10	576	7.367641	0.683587	1072	6.7258	0.808574
% of Pop. White Female Under 10	576	7.012212	0.649409	1072	6.3567	0.761709
% of Pop. Other Male Under 10	576	0.322532	0.437321	1072	0.0525	0.040573
% of Pop. Other Female Under 10	576	0.307242	0.402487	1072	0.0536	0.039637
% of Pop. Black Male Between 10-19	576	0.052283	0.084658	1072	0.2515	0.468536
% of Pop. Black Female Between 10-19	576	0.047129	0.088479	1072	0.2276	0.473586
% of Pop. White Male Between 10-19	576	7.603376	0.952584	1072	7.7274	1.155154
% of Pop. White Female Between 10-19	576	7.140808	0.895257	1072	7.37287	1.158130
% of Pop. Other Male Between 10-19	576	0.308009	0.348147	1072	0.05396	0.040844
% of Pop. Other Female Between 10-19	576	0.295728	0.286703	1072	0.05141	0.038375
% of Pop. Black Male Between 20-29	576	0.064034	0.087570	1072	0.24866	0.439191
% of Pop. Black Female Between 20-29	576	0.042044	0.082821	1072	0.22014	0.497373
% of Pop. White Male Between 20-29	576	6.918945	1.613700	1072	7.53233	1.416936
% of Pop. White Female Between 20-29	576	6.767993	1.485155	1072	7.56037	1.094322
% of Pop. Other Male Between 20-29	576	0.280987	0.322992	1072	0.05412	0.078002
% of Pop. Other Female Between 20-29	576	0.273254	0.287497	1072	0.05431	0.060281
% of Pop. Black Male Between 30-39	576	0.048262	0.073100	1072	0.19163	0.354741
% of Pop. Black Female Between 30-39	576	0.032534	0.071081	1072	0.17443	0.419096
% of Pop. White Male Between 30-39	576	7.363739	0.883651	1072	6.81373	0.850949
% of Pop. White Female Between 30-39	576	7.333140	0.845647	1072	6.87622	0.837649
% of Pop. Other Male Between 30-39	576	0.227610	0.215892	1072	0.04737	0.050606
% of Pop. Other Female Between 30-39	576	0.248852	0.221020	1072	0.05518	0.045324
% of Pop. Black Male Between 40-49	576	0.030101	0.044355	1072	0.12300	0.244123
% of Pop. Black Female Between 40-49	576	0.022872	0.043869	1072	0.12520	0.311716

% of Pop. White Male Between 40-49	576	5.506716	0.817220	1072	5.27656	0.727481
% of Pop. White Female Between 40-49	576	5.456938	0.760387	1072	5.43223	0.650546
% of Pop. Other Male Between 4049	576	0.148190	0.127731	1072	0.03571	0.030029
% of Pop. Other Female Between 4049	576	0.157778	0.121413	1072	0.03901	0.030711
% of Pop. Black Male Between 50-64	576	0.028558	0.045301	1072	0.13316	0.305455
% of Pop. Black Female Between 50-64	576	0.024530	0.050093	1072	0.15634	0.404990
% of Pop. White Male Between 50-64	576	7.123300	1.164997	1072	7.27097	0.814601
% of Pop. White Female Between 50-64	576	7.396392	1.084129	1072	8.08559	1.031230
% of Pop. Other Male Between 50-64	576	0.135419	0.115337	1072	0.02496	0.021059
% of Pop. Other Female Between 50-64	576	0.158164	0.126546	1072	0.03093	0.021638

Table 14: Using Pennsylvania Data on the Number of Permits Issued to Measure the Differential Impact of Pennsylvania's 1989 "Shall Issue" Law on Different Counties: Data for Counties with Populations Over 200,000 (Absolute t-statistics are in parentheses, and the percentage reported below that is the percent of a standard deviation change in the endogenous variable that can be explained by a one standard deviation change in the exogenous variable. While not all the coefficient estimates are reported, all the control variables are the same as those used in Table 3, including year and county dummies. All regressions use weighted least squares where the weighting is each county's population. The use of SHALL*POPULATION variable that was used in the earlier regressions instead of the change in right-to-carry permits variable was tried here and produced very similar results. We also tried controlling for either the robbery or burglary rates, but we obtained very similar results.)

Endogenous Variables are in Crimes per 100,000 Population

Exogenous Variables	ln(Violent Crime Rate)	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Property Crime Rate)	ln(Auto Theft Rate)	ln(Burglary Rate)	ln(Larceny Rate)
Change in the (Number Right-to-Carry Pistol Permits/Population over 21) between 1988 and each year since the Law was implemented	-.05613 (2.159) 12%	-0.1123 (2.005) 14%	-0.0741 (1.725) 16%	-0.06499 (1.656) 15%	0.00199 (0.054) 3%	-0.01836 (0.481) 7%	0.01015 (0.365) 1%	-0.0354 (2.171) 13%	0.01659 (0.271) 6%
Arrest Rate for the crime category corresponding to the appropriate endogenous variable.	-.00802 (7.656) 29%	-.00352 (6.201) 23%	-.000459 (0.380) 3%	-.00796 (6.870) 38%	-.008191 (6.898) 46%	-.0041 (2.057) 9%	-.00062 (1.135) 4%	-.01107 (5.057) 24%	.0003095 (0.154) 6%
Population per square mile	-.000117 (0.246)	0.00306 (2.243)	0.000987 (1.087)	-0.00039 (0.600)	0.0005395 (0.835)	0.00037 (1.283)	-0.000171 (0.275)	.000518 (1.442)	0.00077 (2.601)
Real Per Capita Personal Income	.0000302 (0.942)	-.000058 (0.614)	0.000066 (1.071)	.0000197 (0.452)	0.000047 (1.055)	-.0000485 (2.611)	-0.000067 (1.599)	-0.000034 (1.396)	-.00004 (2.025)
Intercept	-13.352 (0.348)	118.93 (1.069)	-67.015 (0.889)	34.752 (0.671)	-52.529 (0.993)	-10.31 (0.467)	27.816 (0.557)	-29.40 (1.016)	6.2484 (0.269)
Observations =	279	279	279	279	279	279	279	279	279
F-statistic =	219.4	38.08	41.06	75.54	223.51	109.68	216.03	87.49	76.11
Adjusted R^2 =	0.9841	0.9133	0.9193	0.9549	0.9844	0.9686	0.9839	0.9609	0.9552

Table 15: Using Oregon Data on the Number of Permits Issued, the Conviction Rate, and Prison Sentence Lengths

(Absolute t-statistics are in parentheses, and the percentage reported below that is the percent of a standard deviation change in the endogenous variable that can be explained by a one standard deviation change in the exogenous variable. We also controlled for Prison Sentence length but the different reporting practices used by Oregon over this period makes its use somewhat problematic. To deal with this problem the prison sentence length variable was interacted with year dummy variables. Thus while the variable is not consistent over time its is still valuable in distinguishing penalties across counties at a particular point in time. While not all the coefficient estimates are reported, all the remaining control variables are the same as those used in Table 3, including year and county dummies. The categories for violent and property crimes are eliminated because the mean prison sentence data supplied by Oregon did not allow us to use these two categories. All regressions use weighted least squares where the weighting is each county's population.)

Endogenous Variables are in Crimes per 100,000 Population

Exogenous Variables	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Auto Theft Rate)	ln(Burglary Rate)	ln(Larceny Rate)
Change in the (Number Right-to-Carry Pistol Permits/Population over 21) between 1988 and each year since the Law was implemented	-.3747 (1.598) 3%	-.0674 (0.486) 1%	-.0475 (0.272) 0.5%	-.04664 (0.385) 0.28%	0.1172 (1.533) 1%	0.02655 (0.536) 1%	-.0936 (2.328) 3%
Arrest Rate for the crime category corresponding to the appropriate endogenous variable.	-.00338 (6.785) 17%	-.00976 (9.284) 19%	-.00442 (7.279) 19%	-.00363 (4.806) 9%	-.00036 (1.481) 3%	-.00679 (4.458) 16%	-.00936 (6.764) 16%
Conviction Rate conditional on arrest for the crime category corresponding to the appropriate endogenous variable.	-.00208 (6.026) 11%	-.00093 (7.668) 10%	-.01511 (2.150) 6%	-.00190 (4.465) 4%	-.00373 (3.031) 4%	-.00274 (4.297) 10%	-.00859 (3.140) 20%
Population per square mile	-.00333 (0.415)	0.0063 (0.059)	0.01177 (2.430)	0.0079 (2.551)	0.00062 (0.367)	0.00425 (3.937)	-.00030 (0.319)
Real Per Capita Personal Income	-.000138 (0.769)	-.000038 (0.463)	-.000162 (1.301)	0.000108 (1.542)	.000037 (0.965)	.000021 (0.816)	8.29 e-6 (0.407)
Intercept	6.1725 (0.342)	8.2432 (0.496)	84.464 (3.131)	-16.303 (1.114)	2.6213 (0.326)	-11.2489 (2.169)	20.047 (4.748)
Observations =	250	393	239	337	403	487	422
F-statistic =	5.74	16.61	38.79	97.94	156.02	89.90	86.81
Adjusted R^2 =	0.6620	.8113	.9439	.9677	.9766	.9522	.9569

Table 16: Using the 1990 to 1995 Arizona Data on the Number of Permits Issued, the Conviction Rate, and Prison Sentence Lengths (Absolute t-statistics are in parentheses, and the percentage reported below that is the percent of a standard deviation change in the endogenous variable that can be explained by a one standard deviation change in the exogenous variable. All variables, except for the county's population and the year and county dummies, have been reported. The categories for violent and property crimes are eliminated because the mean prison sentence data supplied by Oregon did not allow us to use these two categories. All regressions use weighted least squares where the weighting is each county's population.)

Endogenous Variables are in Crimes per 100,000 Population

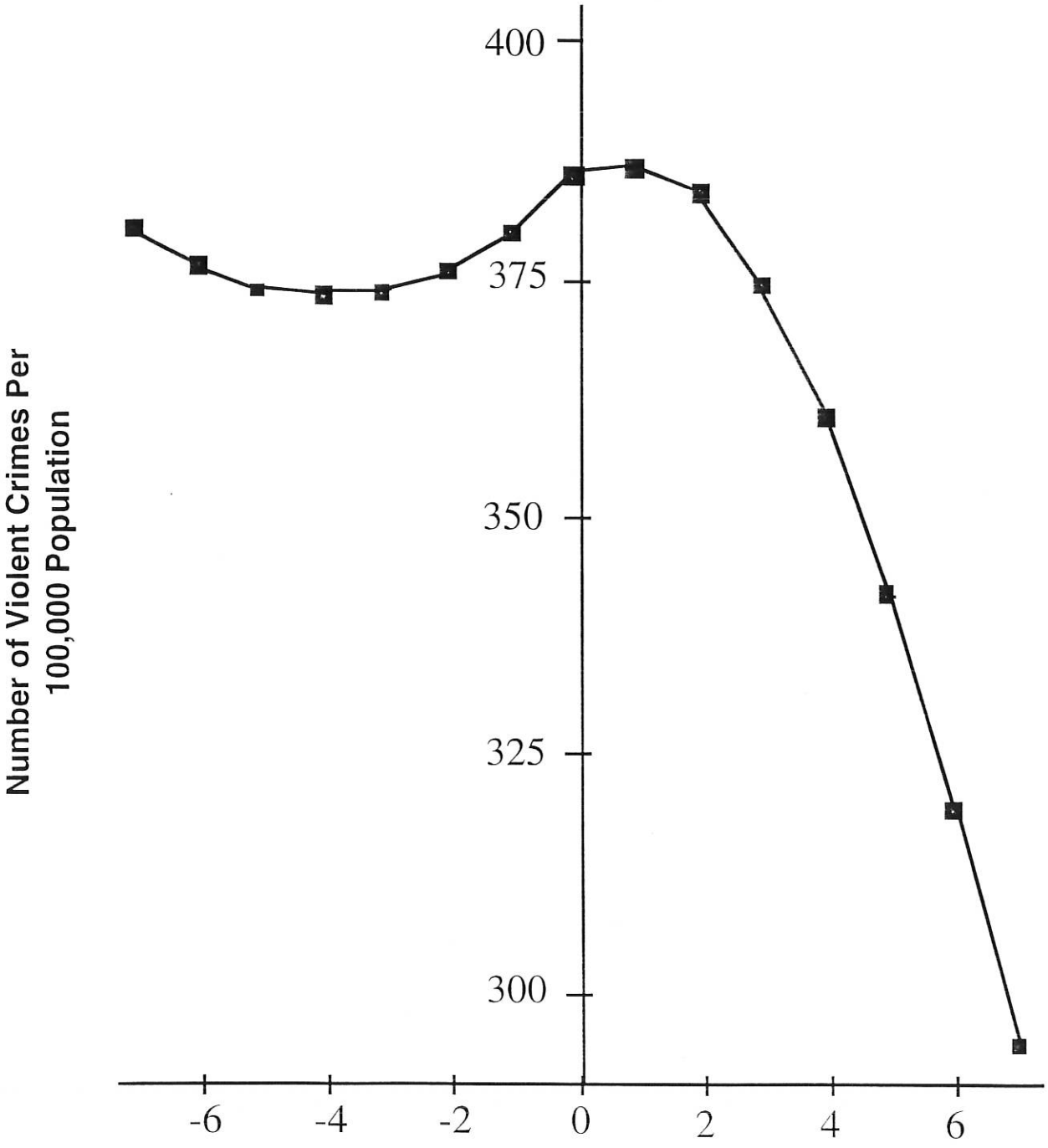
Exogenous Variables	ln(Murder Rate)		ln(Rape Rate)		ln(Aggravated Assault Rate)		ln(Robbery Rate)		ln(Auto Theft Rate)		ln(Burglary Rate)		ln(Larceny Rate)	
Change in the (Number Right-to-Carry Pistol Permits/Population)	.0016	.0025	-.0803	-.0095	.0051	-.00516	.0037	.0039	-.0019	-.0076	.0006	0.0007	-.0003	-.0005
	(0.209)	(0.311)	(1.397)	(0.334)	(1.265)	(1.291)	(0.574)	(0.551)	(0.222)	(0.940)	(0.210)	(0.225)	(0.094)	(0.185)
from the zero allowed before the law and each year since the Law was implemented, the numbers for 1994 were multiplied by .5	1.7%	2.7%	8%	2%	9%	9%	3%	3%	2%	9%	8%	9%	1%	1%
Conviction Rate for the crime category corresponding to the	-.0039	-.00399	-.0055	-.0053	-.0453	-.0429	-.0111	-.0110	-.1373	-.1605	-.10032	-.1037	-.325	-.3298
	(7.677)	(6.798)	(7.558)	(7.014)	(13.51)	(12.18)	(9.553)	(9.391)	(1.678)	(1.879)	(14.44)	(14.62)	(12.1)	(13.80)
appropriate endogenous variable.	29%	30%	27%	26%	72%	67%	21%	20%	37%	43%	28%	29%	60%	60%
Mean Prison Sentence Length for those Sentenced	-.01033	. . .	.0052	. . .	-.0261	. . .	-.0095	. . .	-.0087	. . .	-.0084	. . .	-.018	. . .
	(1.457)		(0.364)		(1.155)		(0.629)		(.055)		(1.759)		(0.936)	
to Prison in that Year	5%		2%		6%		1%		.2%		.7%		3%	
Time Served for those ending their prison terms in that Year	. . .	.0041	. . .	-.0178	. . .	-.0170	. . .	-.0221	. . .	0.0317	. . .	-.0119	. . .	-.0952
		(0.18)		(0.602)		(0.464)		(0.871)		(0.463)		(0.405)		(3.479)
		4%		2%		2%		2%		2%		.8%		11%
Population per square mile	-.1014	-.0791	-.4748	-.4459	-.1424	-.1361	-.1411	-.1514	-.413	-.4019	-.0835	-.0798	-.0313	-.00030
	(0.826)	(0.569)	(3.595)	(3.274)	(2.164)	(1.942)	(1.288)	(1.477)	(2.603)	(2.433)	(1.759)	(1.670)	(0.631)	(0.319)
Intercept	1.208	0.926	1.4750	1.477	4.341	4.365	1.838	1.753	3.432	2.5099	5.467	5.4296	6.621	6.873
	(3.594)	(1.765)	(5.095)	(5.262)	(28.46)	(26.30)	(5.157)	(4.203)	(5.061)	(7.094)	(38.66)	(5.430)	(53.03)	(57.475)
Observations =	74	70	78	75	89	86	64	68	60	89	84	84	85	84
F-statistic =	17.26	14.50	27.64	24.86	56.48	38.79	81.33	76.67	32.12	39.60	109.61	101.18	99.75	118.24
Adjusted R^2 =	0.8367	0.8182	.8925	.8856	.9380	.9439	.9656	.9629	.9239	.9330	.9691	.9666	.9658	.9713

Table 17: Did Carrying Concealed Handguns Increase the Number of Accidental Deaths?: Using 1982-91 County Level Data (While not all the coefficient estimates are reported, all the control variables are the same as those used in Table 3, including year and county dummies. Absolute t-statistics are in parentheses. All regressions weight the data by each county's population.)

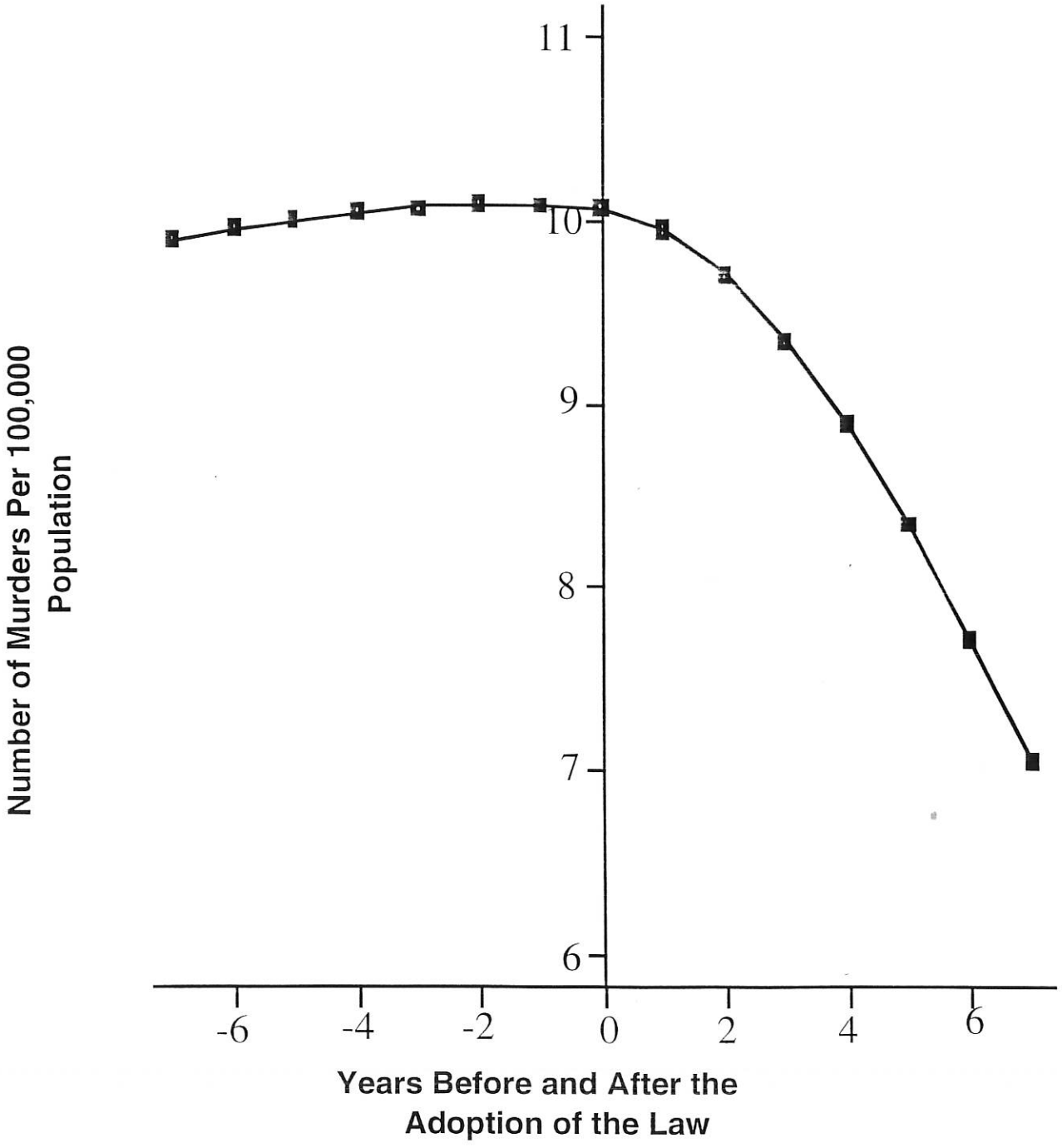
Endogenous Variables are in Deaths per 100,000 population

	Ordinary Least Squares		Tobit	
Exogenous Variables	ln(Accidental Deaths from Handguns)	ln(Accidental Deaths from Nonhandgun Sources)	Accidental Deaths from Handguns	Accidental Deaths from Nonhandgun Sources
Shall Issue Law Adopted Dummy	0.00478 (0.096)	.0980 (1.606)	0.574 (0.743)	1.331 (0.840)
Population per square mile	-.0007 (6.701)	0.000856 (7.063)	-.0000436 (0.723)	-.0001635 (1.083)
Real Per Capita Personal Income	0.0000267 (1.559)	-.000057 (2.882)	.0000436 (1.464)	-.009046 (6.412)
Intercept or Ancillary Parameter	-3.376 (1.114)	-8.7655 (2.506)	7.360841 (44.12)	29.36 (201.7)
Observations =	23271	23271	23271	23271
F-statistic =	3.98	3.91		
Adjusted R^2 =	0.2896	0.2846		
Log Likelihood =			-7424.6	-109310.6
Left-censored Observations =			21897	680

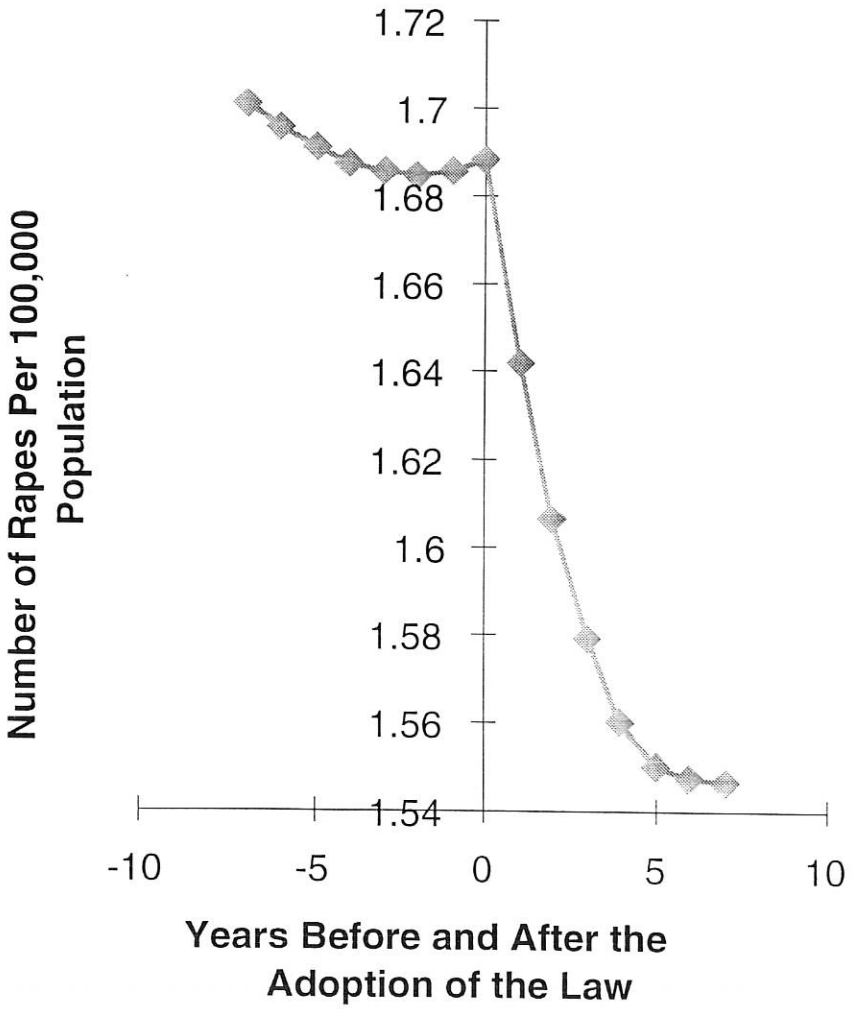
Figure 1: The Effect of Concealed Handguns on Violent Crimes



The Effect of Concealed Handgun Laws on Murders



The Effect of Concealed Handgun Laws on Rapes



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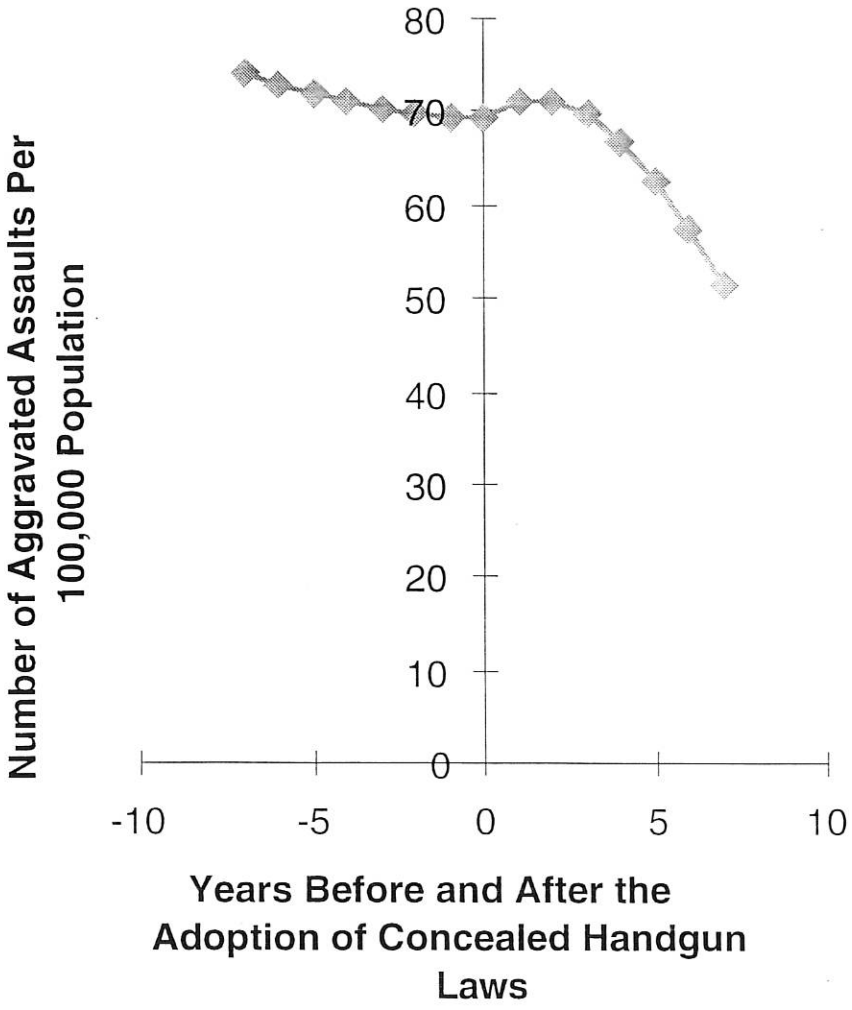

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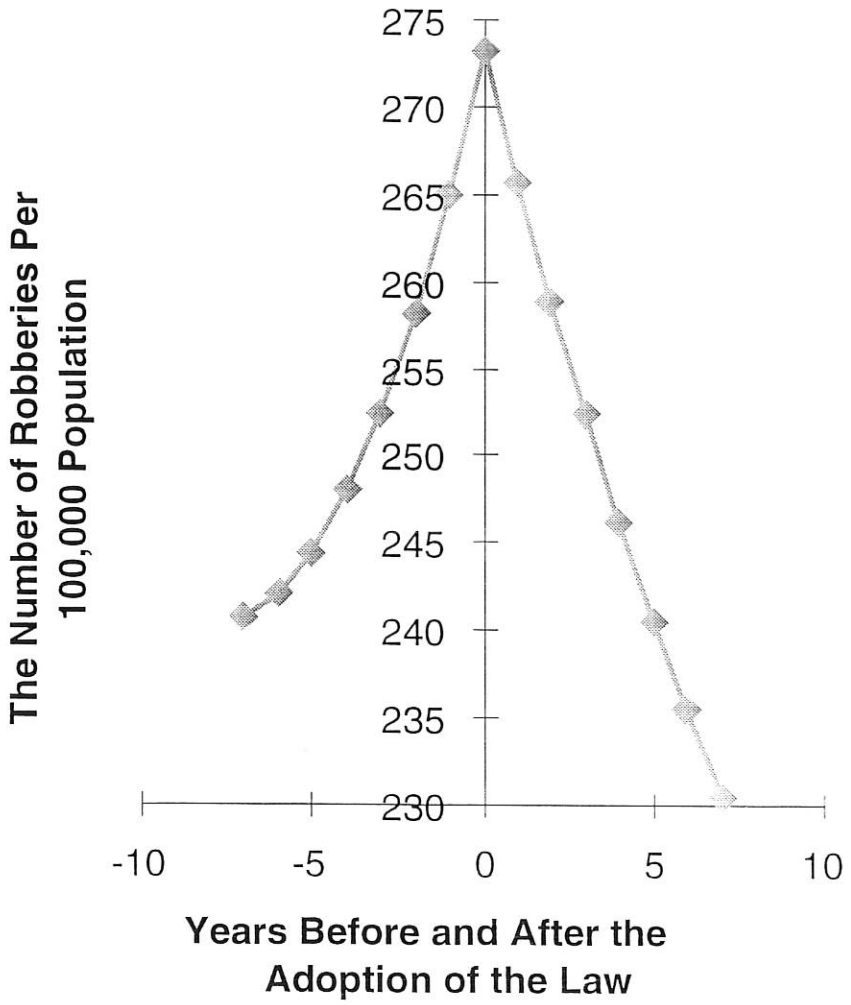

CRIME, DETERRENCE, AND RIGHT-TO-CARRY CONCEALED HANDGUNS

*JOHN R. LOTT, JR., and DAVID B. MUSTARD**

ABSTRACT

Using cross-sectional time-series data for U.S. counties from 1977 to 1992, we find that allowing citizens to carry concealed weapons deters violent crimes, without increasing accidental deaths. If those states without right-to-carry concealed gun provisions had adopted them in 1992, county- and state-level data indicate that approximately 1,500 murders would have been avoided yearly. Similarly, we predict that rapes would have declined by over 4,000, robbery by over 11,000, and aggravated assaults by over 60,000. We also find criminals substituting into property crimes involving stealth, where the probability of contact between the criminal and the victim is minimal. Further, higher arrest and conviction rates consistently reduce crime. The estimated annual gain from all remaining states adopting these laws was at least $5.74 billion in 1992. The annual social benefit from an additional concealed handgun permit is as high as $5,000.

I. INTRODUCTION

WILL allowing concealed handguns make it likely that otherwise law-abiding citizens will harm each other? Or will the threat of citizens carrying weapons primarily deter criminals? To some, the logic is fairly straightforward. Philip Cook argues that "[i]f you introduce a gun into a violent encounter, it increases the chance that someone will die."[1] A large number of murders may arise from unintentional fits of rage that are quickly regretted, and simply keeping guns out of people's reach would prevent deaths.[2] Us-

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[1] Editorial, Cincinnati Enquirer, January 23, 1996, at A8.

[2] See P. J. Cook, The Role of Firearms in Violent Crime, in Criminal Violence 236–91 (M. E. Wolfgang & N. A. Werner eds. 1982); and Franklin Zimring, The Medium Is the

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ing the National Crime Victimization Survey, Cook further states that each year there are "only" 80,000–82,000 defensive uses of guns during assaults, robberies, and household burglaries.[3] By contrast, other surveys imply that private firearms may be used in self-defense up to two and a half million times each year, with 400,000 of these defenders believing that using the gun "almost certainly" saved a life.[4] With total firearm deaths from homicides and accidents equaling 19,187 in 1991,[5] the Kleck and Gertz numbers, even if wrong by a very large factor, suggest that defensive gun use on net saved lives.

While cases like the 1992 incident where a Japanese student was shot on his way to a Halloween party in Louisiana make international headlines,[6] they are rare. In another highly publicized case, a Dallas resident recently became the only Texas resident so far charged with using a permitted concealed weapon in a fatal shooting.[7] Yet, in neither case was the shooting

Message: Firearm Caliber as a Determinant of Death from Assault, 1 J. Legal Stud. 97 (1972), for these arguments.

[3] P. J. Cook, The Technology of Personal Violence, 14 Crime and Justice: Annual Review of Research 57, 56 n.4 (1991). It is very easy to find people arguing that concealed handguns will have no deterrence effect. H. Richard Uviller, Virtual Justice 95 (1996), writes that "[m]ore handguns lawfully in civilian hands will not reduce deaths from bullets and cannot stop the predators from enforcing their criminal demands and expressing their lethal purposes with the most effective tool they can get their hands on."

[4] Gary Kleck & Marc Gertz, Armed Resistance to Crime: The Prevalence and Nature of Self-Defense with a Gun, 86 J. Crim. L. & Criminology 150, 153, 180, 180–82 (Fall 1995). Kleck and Gertz's survey of 10 other nationwide polls implies a range of 764,036–3,609,682 defensive uses of guns per year. Recent evidence confirms other numbers from Kleck and Gertz's study. For example, Annest *et al.* estimate that 99,025 people sought medical treatment for nonfatal firearm woundings. When one considers that many criminals will not seek treatment for wounds and that not all wounds require medical treatment, Kleck and Gertz's estimates of 200,000 woundings seems somewhat plausible, though even Kleck and Gertz believe that this is undoubtedly too high given the very high level of marksmanship that this implies by those shooting the guns. Yet, even if the true number of times that criminals are wounded is much smaller, it still implies that criminals face a very real expected cost from attacking armed civilians. See J. L. Annest, J. A. Mercy, D. R. Gibson, & G. W. Ryan, National Estimates of Nonfatal Firearm-Related Injuries: Beyond the Tip of the Iceberg, J. A.M.A. 1749–54 (June 14, 1995); and also Lawrence Southwick, Jr., Self-Defense with Guns: The Consequences (working paper, SUNY Buffalo 1996), for a discussion on the defensive uses of guns.

[5] U.S. Bureau of the Census, Statistical Abstract of the United States (115th ed. 1995).

[6] Japan Economic Newswire, U.S. Jury Clears Man Who Shot Japanese Student, Kyodo News Service, May 24, 1993; and Lori Sharn, Violence Shoots Holes in USA's Tourist Image, USA TODAY, September 9, 1993, at 2A.

[7] Dawn Lewis of Texans against Gun Violence provided a typical reaction from gun control advocates to the grand jury decision not to charge Gordon Hale. She said, "We are appalled. This law is doing what we expected, causing senseless death." Mark Potok, Texan says the concealed gun law saved his life: "I did what I thought I had to do." USA TODAY, March 22, 1996, at 3A. For a more recent evaluation of the Texas experience, see Few Problems Reported after Allowing Concealed Handguns, Officers Say, Fort Worth Star-Telegram, July 16, 1996. By the end of June 1996, more than 82,000 permits had been issued in Texas.

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found to be unlawful.[8] The rarity of these incidents is reflected in Florida statistics: 221,443 licenses were issued between October 1, 1987, and April 30, 1994, but only 18 crimes involving firearms were committed by those with licenses.[9] While a statewide breakdown on the nature of those crimes is not available, Dade County records indicate that four crimes involving a permitted handgun took place there between September 1987 and August 1992, and none of those cases resulted in injury.[10]

The potential defensive nature of guns is indicated by the different rates of so-called hot burglaries, where residents are at home when the criminals strike.[11] Almost half the burglaries in Canada and Britain, which have tough gun control laws, are "hot burglaries." By contrast, the United States, with laxer restrictions, has a "hot burglary" rate of only 13 percent. Consistent with this, surveys of convicted felons in America reveal that they are much more worried about armed victims than they are about running into the police. This fear of potentially armed victims causes American burglars to spend more time than their foreign counterparts "casing" a house to ensure that nobody is home. Felons frequently comment in these interviews that they avoid late-night burglaries because "that's the way to get shot."[12]

[8] In fact, police accidentally killed 330 innocent individuals in 1993, compared to the mere 30 innocent people accidentally killed by private citizens who mistakenly believed the victim was an intruder. John R. Lott, Jr., Now That the Brady Law Is Law, You Are Not Any Safer than Before, Philadelphia Inquirer, February 1, 1994, at A9.

[9] Clayton E. Cramer & David B. Kopel, "Shall Issue": The New Wave of Concealed Handgun Permit Laws, 62 Tenn. L. Rev. 679, 691 (Spring 1995). An expanded version of this paper dated 1994 is available from the Independence Institute, Golden, Colorado. Similarly, Multnomah County, Oregon, issued 11,140 permits over the period January 1990 to October 1994 and experienced five permit holders being involved in shootings, three of which were considered justified by grand juries. Out of the other two cases, one was fired in a domestic dispute and the other was an accident that occurred while an assault rifle was being unloaded. Bob Barnhart, Concealed Handgun Licensing in Multnomah County (photocopy, Intelligence/Concealed Handgun Unit, Multnomah County, October 1994).

[10] Cramer & Kopel, *supra* note 9, at 691–92.

[11] For example, David B. Kopel, The Samurai, the Mountie, and the Cowboy 155 (1992); and Lott, *supra* note 8.

[12] Wright and Rossi (p. 151) interviewed felony prisoners in 10 state correctional systems and found that 56 percent said that criminals would not attack a potential victim that was known to be armed. They also found evidence that criminals in those states with the highest levels of civilian gun ownership worried the most about armed victims. James D. Wright & Peter Rossi, Armed and Considered Dangerous: A Survey of Felons and Their Firearms (1986).

Examples of stories where people successfully defend themselves from burglaries with guns are quite common. For example, see Burglar Puts 92-Year-Old in the Gun Closet and Is Shot, New York Times, September 7, 1995, at A16. George F. Will, Are We "a Nation of Cowards"? Newsweek, November 15, 1993, discusses more generally the benefits produced from an armed citizenry.

In his paper on airplane hijacking, William M. Landes, An Economic Study of U.S. Aircraft Hijacking, 1961–1976, 21 J. Law & Econ. 1 (April 1978), references a quote by Archie

The case for concealed handgun use is similar. The use of concealed handguns by some law-abiding citizens may create a positive externality for others. By the very nature of these guns being concealed, criminals are unable to tell whether the victim is armed before they strike, thus raising criminals' expected costs for committing many types of crimes.

Stories of individuals using guns to defend themselves has helped motivate 31 states to adopt laws requiring authorities to issue, without discretion, concealed-weapons permits to qualified applicants.[13] This constitutes a dramatic increase from the nine states that allowed concealed weapons in 1986.[14] While many studies examine the effects of gun control,[15] and a smaller number of papers specifically address the right-to-carry concealed firearms,[16] these papers involve little more than either time-series or cross-sectional evidence comparing mean crime rates, and none controls for variables that normally concern economists (for example, the probability of arrest and conviction and the length of prison sentences or even variables like personal income).[17] These papers fail to recognize that, since it is frequently only the largest population counties that are very restrictive when local authorities have been given discretion in granting concealed handgun permits, "shall issue" concealed handgun permit laws, which require permit requests be granted unless the individual has a criminal record or a history of significant mental illness,[18] will not alter the number of permits being issued in all counties.

Bunker from the television show "All in the Family" that is quite relevant to the current discussion. Landes quotes Archie Bunker as saying "Well, I could stop hi-jacking tomorrow . . . if everyone was allowed to carry guns them hi-jackers wouldn't have no superiority. All you gotta do is arm all the passengers, then no hi-jacker would risk pullin' a rod."

[13] These states were Alabama, Alaska, Arizona, Arkansas, Connecticut, Florida, Georgia, Idaho, Indiana, Kentucky, Louisiana, Maine, Mississippi, Montana, Nevada, New Hampshire, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, and Wyoming.

[14] These states were Alabama, Connecticut, Indiana, Maine, New Hampshire, North Dakota, South Dakota, Vermont, and Washington. Fourteen other states provided local discretion on whether to issue permits: California, Colorado, Delaware, Hawaii, Iowa, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New York, Rhode Island, and South Carolina.

[15] See Gary Kleck, Guns and Violence: An Interpretive Review of the Field, 1 Soc. Pathology 12–47 (January 1995), for a survey.

[16] For example, P. J. Cook, Stephanie Molliconi, & Thomas B. Cole, Regulating Gun Markets, 86 J. Crim. L. & Criminology, 59–92 (Fall 1995); Cramer & Kopel, *supra* note 9; David McDowall, Colin Loftin, & Brian Wiersema, Easing Concealed Firearm Laws: Effects on Homicide in Three States, 86 J. Crim. L. & Criminology 193–206 (Fall 1995); and Gary Kleck & E. Britt Patterson, The Impact of Gun Control and Gun Ownership Levels on Violence Rates, 9 J. Quantitative Criminology 249–87 (1993).

[17] All 22 gun control papers studied by Kleck, *supra* note 15, use either cross-sectional state or city data or use time-series data for the entire United States or a particular city.

[18] Cramer & Kopel, *supra* note 9, at 680–707.

Other papers suffer from additional weaknesses. The paper by McDowall *et al.*,[19] which evaluates right-to-carry provisions, was widely cited in the popular press. Yet, their study suffers from many major methodological flaws: for instance, without explanation, they pick only three cities in Florida and one city each in Mississippi and Oregon (despite the provisions involving statewide laws), and they use neither the same sample period nor the same method of picking geographical areas for each of those cities.[20]

Our paper hopes to overcome these problems by using annual cross-sectional time-series county-level crime data for the entire United States from 1977 to 1992 to investigate the effect of "shall issue" right-to-carry concealed handgun laws. It is also the first paper to study the questions of deterrence using these data. While many recent studies employ proxies for deterrence—such as police expenditures or general levels of imprisonment—we are able to use arrest rates by type of crime and for a subset of our data also conviction rates and sentence lengths by type of crime.[21] We also attempt to analyze a question noted but not empirically addressed in this literature: the concern over causality between increases in handgun usage and crime rates. Is it higher crime that leads to increased handgun ownership, or the reverse? The issue is more complicated than simply whether carrying concealed firearms reduces murders because there are questions over whether criminals might substitute between different types of crimes as well as the extent to which accidental handgun deaths might increase.

II. Problems Testing the Effect of "Shall Issue" Concealed Handgun Provisions on Crime

Following Becker (1968), many economists have found evidence broadly consistent with the deterrent effect of punishment.[22] The notion is that the

[19] McDowall *et al.*, *supra* note 16.

[20] Equally damaging, the authors appear to concede in a discussion that follows their piece that their results are highly sensitive to how they define the crimes that they study. Even with their strange sample selection techniques, total murders appear to fall after the passage of concealed weapon laws. Because the authors only examine murders committed with guns, there is no attempt to control for any substitution effects that may occur between different methods of murder. For an excellent discussion of the McDowall *et al.* paper, see Daniel D. Polsby, Firearms Costs, Firearms Benefits and the Limits of Knowledge, 86 J. Crim. L. & Criminology 207–20 (Fall 1995).

[21] Recent attempts to relate the crime rate to the prison population concern us (see, for example, Levitt). Besides difficulties in relating the total prison population with any particular type of crime, we are also troubled by the ability to compare a stock (the prison population) with a flow (the crime rate). Steven Levitt, The Effect of Prison Population Size on Crime Rates: Evidence from Prison Overcrowding Litigation, 144 Q. J. Econ. (1996).

[22] Gary S. Becker, Crime and Punishment: An Economic Approach, 76 J. Pol. Econ. 169-217 (March/April 1968). For example, Isaac Ehrlich, Participation in Illegitimate Activities: A Theoretical and Empirical Investigation, 81 J. Pol. Econ. 521–65 (1973); Michael K.

expected penalty affects the prospective criminal's desire to commit a crime. This penalty consists of the probabilities of arrest and conviction and the length of the prison sentence. It is reasonable to disentangle the probability of arrest from the probability of conviction since accused individuals appear to suffer large reputational penalties simply from being arrested.[23] Likewise, conviction also imposes many different penalties (for example, lost licenses, lost voting rights, further reductions in earnings, and so on) even if the criminal is never sentenced to prison.[24]

While this discussion is well understood, the net effect of "shall issue" right-to-carry concealed handguns is ambiguous and remains to be tested when other factors influencing the returns to crime are controlled for. The first difficulty involves the availability of detailed county-level data on a variety of crimes over 3,054 counties during the period from 1977 to 1992. Unfortunately, for the time period we study, the Federal Bureau of Investigation's (FBI) Uniform Crime Report includes only arrest rate data rather than conviction rates or prison sentences. While we make use of the arrest rate information, we will also use county-level dummies, which admittedly constitute a rather imperfect way to control for cross-county differences such as differences in expected penalties. Fortunately, however, alternative variables are available to help us proxy for changes in legal regimes that affect the crime rate. One such method is to use another crime category as an exogenous variable that is correlated with the crimes that we are studying but at the same time is unrelated to the changes in right-to-carry firearm laws. Finally, after telephoning law enforcement officials in all 50 states, we were able to collect time-series county-level conviction rates and mean prison sentence lengths for three states (Arizona, Oregon, and Washington).

The FBI crime reports include seven categories of crime: murder, rape, aggravated assault, robbery, auto theft, burglary, and larceny.[25] Two addi-

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Block & John Heineke, A Labor Theoretical Analysis of Criminal Choice, 65 Am. Econ. Rev. 314–25 (June 1975); Landes, *supra* note 12; John R. Lott, Jr., Juvenile Delinquency and Education: A Comparison of Public and Private Provision, 7 Int'l Rev. L. & Econ. 163–75 (December 1987); James Andreoni, Criminal Deterrence in the Reduced Form: A New Perspective on Ehrlich's Seminal Study, 33 Econ. Inquiry 476–83 (July 1995); Morgan O. Reynolds, Crime and Punishment in America (Policy Report 193, National Center for Policy Analysis, June 1995); and Levitt, *supra* note 21.

[23] John R. Lott, Jr., Do We Punish High Income Criminals Too Heavily? 30 Econ. Inquiry 583–608 (October 1992).

[24] John R. Lott, Jr., The Effect of Conviction on the Legitimate Income of Criminals, 34 Econ. Letters 381–85 (December 1990); John R. Lott, Jr., An Attempt at Measuring the Total Monetary Penalty from Drug Convictions: The Importance of an Individual's Reputation, 21 J. Legal Stud. 159–87 (January 1992); and Lott, *supra* note 23.

[25] Arson was excluded because of a large number of inconsistencies in the data and the small number of counties reporting this measure. Murder is defined as murder and nonnegligent manslaughter.

tional summary categories were included: violent crimes (including murder, rape, aggravated assault, and robbery) and property crimes (including auto theft, burglary, and larceny). Despite being widely reported measures in the press, these broader categories are somewhat problematic in that all crimes are given the same weight (for example, one murder equals one aggravated assault). Even the narrower categories are somewhat broad for our purposes. For example, robbery includes not only street robberies, which seem the most likely to be affected by "shall issue" laws, but also bank robberies, where, because of the presence of armed guards, the additional return to having armed citizens would appear to be small.[26] Likewise, larceny involves crimes of "stealth," but these range from pickpockets, where "shall issue" laws could be important, to coin machine theft.[27]

This aggregation of crime categories makes it difficult to separate out which crimes might be deterred from increased handgun ownership and which crimes might be increased as a result of a substitution effect. Generally, we expect that the crimes most likely to be deterred by concealed handgun laws are those involving direct contact between the victim and the criminal, especially those occurring in a place where victims otherwise would not be allowed to carry firearms. For example, aggravated assault, murder, robbery, and rape seem most likely to fit both conditions, though obviously some of all these crimes can occur in places like residences where the victims could already possess firearms to protect themselves.

By contrast, crimes like auto theft seem unlikely to be deterred by gun ownership. While larceny is more debatable, in general—to the extent that these crimes actually involve "stealth"—the probability that victims will

[26] Robbery includes street robbery, commercial robbery, service station robbery, convenience store robbery, residence robbery, and bank robbery. (See also the discussion of burglary for why the inclusion of residence robbery creates difficulty with this broad measure.) After we wrote this paper, two different commentators have attempted to argue that "[i]f 'shall issue' concealed carrying laws really deter criminals from undertaking street crimes, then it is only reasonable to expect the laws to have an impact on robberies. Robbery takes place between strangers on the street. A high percentage of homicide and rape, on the other hand, occurs inside a home—where concealed weapons laws should have no impact. These findings strongly suggest that something else—not new concealed carry laws—is responsible for the reduction in crime observed by the authors." (Doug Weil, Response to John Lott's Study on the Impact of "Carry Concealed" Laws on Crime Rates, U.S. Newswire, August 8, 1996.) The curious aspect about the emphasis on robbery over other crimes like murder and rape is that if robbery is the most obvious crime to be affected by gun control laws, why have virtually no gun control studies examined robberies? In fact, Kleck's literature survey only notes one previous gun control study that examined the issue of robberies (see Kleck, *supra* note 15). Yet, more importantly, given that the FBI includes many categories of robberies besides robberies that "take place between strangers on the street," it is not obvious why this should exhibit the greatest sensitivity to concealed handgun laws.

[27] Larceny includes pickpockets, purse snatching, shoplifting, bike theft, theft from buildings, theft from coin machines, and theft from motor vehicles.

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notice the crime being committed seems low and thus the opportunities to use a gun are relatively rare. The effect on burglary is ambiguous from a theoretical standpoint. It is true that if "shall issue" laws cause more people to own a gun, the chance of a burglar breaking into a house with an armed resident goes up. However, if some of those who already owned guns now obtain right-to-carry permits, the relative cost of crimes like armed street robbery and certain other types of robberies (where an armed patron may be present) should rise relative to that for burglary.

Previous concealed handgun studies that rely on state-level data suffer from an important potential problem: they ignore the heterogeneity within states.[28] Our telephone conversations with many law enforcement officials have made it very clear that there was a large variation across counties within a state in terms of how freely gun permits were granted to residents prior to the adoption of "shall issue" right-to-carry laws.[29] All those we talked to strongly indicated that the most populous counties had previously adopted by far the most restrictive practices on issuing permits. The implication for existing studies is that simply using state-level data rather than county data will bias the results against finding any effect from passing right-to-carry provisions. Those counties that were unaffected by the law must be separated out from those counties where the change could be quite dramatic. Even cross-sectional city data[30] will not solve this problem, because without time-series data it is impossible to know what effect a change in the law had for a particular city.

There are two ways of handling this problem. First, for the national sample, we can see whether the passage of "shall issue" right-to-carry laws

[28] For example, Arnold S. Linsky, Murray A. Strauss, & Ronet Bachman-Prehn, Social Stress, Legitimate Violence, and Gun Availability (paper presented at the annual meeting of the Society for the Study of Social Problems, 1988); and Cramer & Kopel, *supra* note 9.

[29] Among those who made this comment to us were Bob Barnhardt, manager of the Intelligence/Concealed Handgun Unit of Multnomah County, Oregon; Mike Woodward, with the Oregon Law Enforcement Data System; Joe Vincent with the Washington Department of Licensing Firearms Unit; Alan Krug, who provided us with the Pennsylvania Permit data; and Susan Harrell, with the Florida Department of State Concealed Weapons Division. Evidence for this point with respect to Virginia is obtained from Eric Lipton, Virginians Get Ready to Conceal Arms; State's New Weapon Law Brings a Flood of Inquiries, Washington Post, June 28, 1995, at A1, where it is noted that "[a]nalysts say the new law, which drops the requirement that prospective gun carriers show a 'demonstrated need' to be armed, likely won't make much of a difference in rural areas, where judges have long issued permits to most people who applied for them. But in urban areas such as Northern Virginia—where judges granted few permits because few residents could justify a need for them—the number of concealed weapon permits issued is expected to soar. In Fairfax, for example, a county of more than 850,000 people, only 10 now have permits." Cramer & Kopel, *supra* note 9. An expanded version of this paper dated 1994, available from the Independence Institute, Golden, Colorado, also raises this point with respect to California.

[30] For example, Kleck & Patterson, *supra* note 16.

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produces systematically different effects between the high and low population counties. Second, for three states, Arizona, Oregon, and Pennsylvania, we have acquired time series data on the number of right-to-carry permits for each county. The normal difficulty with using data on the number of permits involves the question of causality: do more permits make crimes more costly or do higher crimes lead to more permits? The change in the number of permits before and after the change in the state laws allows us to rank the counties on the basis of how restrictive they had actually been in issuing permits prior to the change in the law. Of course, there is still the question of why the state concealed handgun law changed, but since we are dealing with county-level rather than state-level data, we benefit from the fact that those counties which had the most restrictive permitting policies were also the most likely to have the new laws exogenously imposed on them by the rest of their state.

Using county-level data also has another important advantage in that both crime and arrest rates vary widely within states. In fact, as Table 1 indicates, the standard deviation of both crime and arrest rates across states is almost always smaller than the average within-state standard deviation across counties. With the exception of robbery, the standard deviation across states for crime rates ranges from between 61 and 83 percent of the average of the standard deviation within states. (The difference between these two columns with respect to violent crimes arises because robberies make up such a large fraction of the total crimes in this category.) For arrest rates, the numbers are much more dramatic, with the standard deviation across states as small as 15 percent of the average of the standard deviation within states. These results imply that it is no more accurate to view all the counties in the typical state as a homogenous unit than it is to view all the states in the United States as one homogenous unit. For example, when a state's arrest rate rises, it may make a big difference whether that increase is taking place in the most or least crime-prone counties. Depending on which types of counties the changes in arrest rates are occurring in and depending on how sensitive the crime rates are to changes in those particular counties, widely differing estimates of how increasing a state's average arrest rate will deter crime could result. Aggregating these data may thus make it more difficult to discern the true relationship that exists between deterrence and crime.

Perhaps the relatively small across-state variation as compared to within-state variations is not so surprising given that states tend to average out differences as they encompass both rural and urban areas. Yet, when coupled with the preceding discussion on how concealed handgun provisions affected different counties in the same state differently, these numbers strongly imply that it is risky to assume that states are homogenous units

TABLE 1

COMPARING THE DEVIATION IN CRIME RATES BETWEEN STATES AND BY COUNTIES WITHIN STATES FROM 1977 TO 1992: DOES IT MAKE SENSE TO VIEW STATES AS RELATIVELY HOMOGENOUS UNITS?

	Standard Deviation of State Means	Mean of Within-State Standard Deviations
Crime rates per 100,000 population:		
Violent crimes	284.77	255.57
Murder	6.12	8.18
Murder with guns (1982–91)	3.9211	6.4756
Rape	16.33	23.55
Aggravated assault	143.35	172.66
Robbery	153.62	92.74
Property crime	1,404.15	2,120.28
Auto theft	162.02	219.74
Burglary	527.70	760.22
Larceny	819.08	1,332.52
Arrest rates defined as the number of arrests divided by the number of offenses:*		
Violent crimes	23.89	112.97
Murder	18.58	88.41
Rape	19.83	113.86
Robbery	21.97	104.40
Aggravated assault	25.30	78.53
Property crimes	7.907	44.49
Burglary	5.87	25.20
Larceny	11.11	71.73
Auto theft	17.37	118.94
Truncating arrest rates to be no greater than one:		
Violent crimes	11.11	25.40
Murder	10.78	36.40
Rape	10.60	31.59
Robbery	8.06	32.67
Aggravated assault	11.14	27.08
Property crimes	5.115	11.99
Burglary	4.63	14.17
Larceny	5.91	12.97
Auto theft	8.36	26.66

* Because of multiple arrests for a crime and because of the lags between when a crime occurs and an arrest takes place, the arrest rate for counties and states can be greater than one. This is much more likely to occur for counties than for states.

with respect to either how crimes are punished or how the laws which affect gun usage are changed. Unfortunately, this focus of state-level data is pervasive in the entire crime literature, which focuses on state- or city-level data and fails to recognize the differences between rural and urban counties.

However, using county-level data has some drawbacks. Frequently, because of the low crime rates in many low population counties, it is quite common to find huge variations in the arrest and conviction rates between years. In addition, our sample indicates that annual conviction rates for some counties are as high as 13 times the offense rate. This anomaly arises for a couple reasons. First, the year in which the offense occurs frequently differs from the year in which the arrests and/or convictions occur. Second, an offense may involve more than one offender. Unfortunately, the FBI data set allows us neither to link the years in which offenses and arrests occurred nor to link offenders with a particular crime. When dealing with counties where only a few murders occur annually, arrests or convictions can be multiples higher than the number of offenses in a year. This data problem appears especially noticeable for murder and rape.

One partial solution is to limit the sample to only counties with large populations. For counties with a large numbers of crimes, these waves have a significantly smoother flow of arrests and convictions relative to offenses. An alternative solution is to take a moving average of the arrest or conviction rates over several years, though this reduces the length of the usable sample period, depending on how many years are used to compute this average. Furthermore, the moving average solution does nothing to alleviate the effect of multiple suspects being arrested for a single crime.

Another concern is that otherwise law-abiding citizens may have carried concealed handguns even before it was legal to do so. If shall issue laws do not alter the total number of concealed handguns carried by otherwise law-abiding citizens but merely legalizes their previous actions, passing these laws seems unlikely to affect crime rates. The only real effect from making concealed handguns legal could arise from people being more willing to use handguns to defend themselves, though this might also imply that they will be more likely to make mistakes using these handguns.

It is also possible that concealed firearm laws both make individuals safer and increase crime rates at the same time. As Peltzman has pointed out in the context of automobile safety regulations, increasing safety can result in drivers offsetting these gains by taking more risks in how they drive.[31] The same thing is possible with regard to crime. For example, allowing citizens to carry concealed firearms may encourage people to risk entering more

[31] Sam Peltzman, The Effects of Automobile Safety Regulation, 83 J. Pol. Econ. 677–725 (August 1975).

dangerous neighborhoods or to begin traveling during times they previously avoided. Thus, since the decision to engage in these riskier activities is a voluntary one, it is possible that society still could be better off even if crime rates were to rise as a result of concealed handgun laws.

Finally, there are also the issues of why certain states adopted concealed handgun laws and whether higher offense rates result in lower arrest rates. To the extent that states adopted the law because crime was rising, ordinary least squares (OLS) estimates would underpredict the drop in crime. Likewise, if the rules were adopted when crime rates were falling, the bias would be in the opposite direction. None of the previous studies deal with this last type of potential bias. At least since Ehrlich,[32] economists have also realized that potential biases exist from having the offense rate as both the endogenous variable and the denominator in determining the arrest rate and because increasing crime rates may lower the arrest rate if the same resources are being asked to do more work. Fortunately, both these sets of potential biases can be dealt with using two-stage least squares (2SLS).

III. The Data

Between 1977 and 1992, 10 states (Florida (1987), Georgia (1989), Idaho (1990), Maine (1985),[33] Mississippi (1990), Montana (1991), Oregon (1990), Pennsylvania (1989), Virginia (1988),[34] and West Virginia (1989)) adopted "shall issue" right-to-carry firearm laws. However, Pennsylvania is a special case because Philadelphia was exempted from the state law during our sample period. Eight other states (Alabama, Connecticut, Indiana, New Hampshire, North Dakota, South Dakota, Vermont, and Washington) effectively had these laws on the books prior to the period being studied.[35] Since the data are at the county level, a dummy variable is set equal to one for each county operating under "shall issue" right-to-carry laws. A Nexis

[32] Ehrlich, *supra* note 22, at 548–53.

[33] While we will follow Cramer and Kopel's definition of what constitutes a "shall issue" or a "do issue" state, one commentator has suggested that it is not appropriate to include Maine in these categories (Stephen P. Teret, Critical Comments on a Paper by Lott and Mustard (photocopy, Johns Hopkins University, School of Hygiene and Public Health, August 7, 1996)). Either defining Maine so that the "shall issue" dummy equals zero for it or removing Maine from the data set does not alter the findings shown in this paper. Please see note 49 *infra* for a further discussion.

[34] While the intent of the 1988 legislation in Virginia was clearly to institute a "shall issue" law, the law was not equally implemented in all counties in the state. To deal with this problem, we reran the regressions reported in this paper with the "shall issue" dummy both equal to 1 and 0 for Virginia. The results as reported later in footnote 49 are very similar in the two cases.

[35] We rely on Cramer & Kopel, *supra* note 9, for this list of states. Some states known as "do issue" states are also included in Cramer and Kopel's list of "shall issue" states though these authors argue that for all practical purposes these two groups of states are identical.

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search was conducted to determine the exact date on which these laws took effect. For the states that adopted the law during the year, the dummy variable for that year is scaled to equal that portion of the year for which the law was in effect. Because of delays in implementing the laws even after they go into effect, we also used a dummy variable that equals one starting during the first full year that the law is in effect. The following tables report this second measure, though both measures produced similar results.

While the number of arrests and offenses for each type of crime in every county from 1977 to 1992 were provided by the Uniform Crime Report, we also contacted the state departments of corrections, state attorneys general, state secretaries of state, and state police offices in every state to try to compile data on conviction rates, sentence lengths, and right-to-carry concealed weapons permits by county. The Bureau of Justice Statistics also released a list of contacts in every state that might have available state-level criminal justice data. Unfortunately, county data on the total number of outstanding right-to-carry pistol permits were available for only Arizona, California, Florida, Oregon, Pennsylvania, and Washington, though time-series county data before and after a change in the permitting law were available only for Arizona (1994–96), Oregon (1990–92) and Pennsylvania (1986–92). Since the Oregon "shall issue" law passed in 1990, we attempted to get data on the number of permits in 1989 by calling up every county sheriff in Oregon, with 25 of the 36 counties providing us with this information. (The remaining counties claimed that records had not been kept.)[36] For Oregon, data on the county-level conviction rate and prison sentence length were also available from 1977 to 1992.

One difficulty with the sentence length data is that Oregon passed a sentencing reform act that went into effect in November 1989 causing criminals to serve 85 percent of their sentence, and thus judges may have correspondingly altered their rulings. Even then, this change was phased in over time because the law applied only to crimes that took place after it went into effect in 1989. In addition, the Oregon system did not keep complete records prior to 1987, and the completeness of these records decreased the further into the past one went. One solution to both of these problems is to interact the prison sentence length with year dummy variables. A similar problem exists for Arizona, which adopted a truth-in-sentencing reform during the fall of 1994. Finally, Arizona is different from Oregon and Pennsylvania in that it already allowed handguns to be carried openly before passing its concealed handgun law, thus one might expect to find a somewhat smaller response to adopting a concealed handgun law.

[36] The Oregon counties providing permit data were Benton, Clackamas, Coos, Curry, Deschutes, Douglas, Gilliam, Hood River, Jackson, Jefferson, Josephine, Klamath, Lane, Linn, Malheur, Marion, Morrow, Multnomah, Polk, Tillamook, Washington, and Yamhill.

TABLE 2

NATIONAL SAMPLE MEANS AND STANDARD DEVIATIONS

Variable	*N*	Mean	S.D.
Gun ownership information:			
Shall issue dummy	50,056	.164704	.368089
Arrests rates (ratio of arrests to offenses) for a particular crime category:			
Index crimes	45,108	27.43394	126.7298
Violent crimes	43,479	71.30733	327.2456
Property crimes	45,978	24.02564	120.8654
Murder	26,472	98.04648	109.7777
Rape	33,887	57.8318	132.8028
Aggravated assault	43,472	71.36647	187.354
Robbery	34,966	61.62276	189.5007
Burglary	45,801	21.51446	47.28603
Larceny	45,776	25.57141	263.706
Auto theft	43,616	44.8199	307.5356
Crime rates are defined per 100,000 people:			
Index crimes	46,999	2,984.99	3,368.85
Violent crimes	47,001	249.0774	388.7211
Property crimes	46,999	2,736.59	3,178.41
Murder	47,001	5.651217	10.63025
Murder with guns (1982–91 in counties over 100,000)	12,759	3.9211	6.4756
Rape	47,001	18.7845	32.39292
Robbery	47,001	44.6861	149.2124
Aggravated assault	47,001	180.0518	243.2615
Burglary	47,001	811.8642	1,190.23
Larceny	47,000	1,764.37	2,036.03
Auto theft	47,000	160.4165	284.5969
Causes of accidental deaths and murders per 100,000 people:			
Rate of accidental deaths from guns	23,278	.151278	1.216175
Rate of accidental deaths from sources other than guns	23,278	1.165152	4.342401
Rate of total accidental deaths	23,278	51.95058	32.13482
Rate of murders using handgun	23,278	.444301	1.930975
Rate of murders using other guns	23,278	3.477088	6.115275
Real per capita income data (in real 1983 dollars):			
Personal income	50,011	10,554.21	2,498.07
Unemployment insurance	50,011	67.57505	53.10043
Income maintenance	50,011	157.2265	97.61466
Retirement payments per person over 65	49,998	12,328.5	4,397.49
Population characteristics:			
County population	50,023	75,772.78	250,350.4
County population per square mile	50,023	214.3291	1,421.25
State population	50,056	6,199,949	5,342,068
State NRA membership per 100,000 state population	50,056	1,098.11	516.0701
% of votes Republican in presidential election	50,056	52.89235	8.410228

TABLE 2 (*Continued*)

Variable	*N*	Mean	S.D.
Race and age data (% of population):			
Black male 10–19	50,023	.920866	1.556054
Black female 10–19	50,023	.892649	1.545335
White male 10–19	50,023	7.262491	1.747557
White female 10–19	50,023	6.820146	1.673272
Other male 10–19	50,023	.228785	.769633
Other female 10–19	50,023	.218348	.742927
Black male 20–29	50,023	.751636	1.214317
Black female 20–29	50,023	.762416	1.2783
White male 20–29	50,023	6.792357	1.991303
White female 20–29	50,023	6.577894	1.796134
Other male 20–29	50,023	.185308	.557494
Other female 20–29	50,023	.186327	.559599
Black male 30–39	50,023	.539637	.879286
Black female 30–39	50,023	.584164	.986009
White male 30–39	50,023	6.397395	1.460204
White female 30–39	50,023	6.318641	1.422831
Other male 30–39	50,023	.151869	.456388
Other female 30–39	50,023	.167945	.454721
Black male 40–49	50,023	.358191	.571475
Black female 40–49	50,023	.415372	.690749
White male 40–49	50,023	4.932917	1.086635
White female 40–49	50,023	4.947299	1.038738
Other male 40–49	50,023	.105475	.302059
Other female 40–49	50,023	.115959	.304423
Black male 50–64	50,023	.43193	.708241
Black female 50–64	50,023	.54293	.921819
White male 50–64	50,023	6.459038	1.410181
White female 50–64	50,023	6.911502	1.54784
Other male 50–64	50,023	.101593	.367467
Other female 50–64	50,023	.11485	.374837
Black male over 65	50,023	.384049	.671189
Black female over 65	50,023	.552889	.980266
White male over 65	50,023	5.443062	2.082804
White female over 65	50,023	7.490128	2.69476
Other male over 65	50,023	.065265	.286597
Other female over 65	50,023	.077395	.264319

In addition to using county dummy variables, other data were collected from the Bureau of the Census to try controlling for other demographic characteristics that might determine the crime rate. These data included information on the population density per square mile, total county population, and detailed information on the racial and age breakdown of the county (percentage of population by each racial group and by sex between 10 and 19 years of age, between 20 and 29, between 30 and 39, between 40 and 49, between 50 and 64, and 65 and over).[37] While a large literature

[37] See Table 2 for the list and summary statistics.

discusses the likelihood of younger males engaging in crime,[38] controlling for these other categories allows us to also attempt to measure the size of the groups considered most vulnerable (for example, females in the case of rape).[39] Recent evidence by Glaeser and Sacerdote confirms the higher crime rates experienced in cities and examines to what extent this arises due to social and family influences as well as the changing pecuniary benefits from crime,[40] though this is the first paper to explicitly control for population density. The Data Appendix provides a more complete discussion of the data.

An additional set of income data was also used. These included real per capita personal income, real per capita unemployment insurance payments, real per capita income maintenance payments, and real per capita retirement payments per person over 65 years of age.[41] Including unemployment insurance and income maintenance payments from the Commerce Department's Regional Economic Information System data set was an attempt to provide annual county-level measures of unemployment and the distribution of income.

Finally, we recognize that other legal changes in how guns are used and when they can be obtained can alter the levels of crime. For example, penalties involving improper gun use might also have been changing simultaneously with changes in the permitting requirements for concealed handguns. In order to see whether this might confound our ability to infer what was responsible for any observed changes in crimes rates we read through various editions of the Bureau of Alcohol, Tobacco, and Firearms' *State Laws and Published Ordinances—Firearms* (1976, 1986, 1989, and 1994). Excluding the laws regarding machine guns and sawed-off shotguns, there is no evidence that the laws involving the use of guns changed significantly when concealed permit rules were changed.[42] Another survey which ad-

[38] For example, James Q. Wilson & Richard J. Herrnstein, Crime and Human Nature 126–47 (1985).

[39] However, the effect of an unusually large percentage of young males in the population may be mitigated because those most vulnerable to crime may be more likely to take actions to protect themselves. Depending on how responsive victims are to these threats, it is possible that the coefficient for a variable like the percentage of young males in the population could be zero even when the group in question poses a large criminal threat.

[40] Edward L. Glaeser & Bruce Sacerdote, Why Is There More Crime in Cities? (working paper, Harvard Univ., November 14, 1995).

[41] For a discussion of the relationship between income and crime see John R. Lott, Jr., A Transaction-Costs Explanation for Why the Poor Are More Likely to Commit Crime, 19 J. Legal Stud. 243–45 (January 1990).

[42] A more detailed survey of the state laws is available from the authors. The findings of a brief survey of the laws excluding the permitting changes are as follows: Alabama: No significant changes in these laws during period. Connecticut: Law gradually changed in wording from criminal use to criminal possession from 1986 to 1994. Florida: Has the most

dresses the somewhat broader question of sentencing enhancement laws for felonies committed with deadly weapons (firearms, explosives, and knives) from 1970 to 1992 also confirms this general finding, with all but four of the legal changes clustered from 1970 to 1981.[43] Yet, controlling for the dates supplied by Marvell and Moody still allows us to examine the deterrence effect of criminal penalties specifically targeted at the use of deadly weapons during this earlier period.[44]

States also differ in terms of their required waiting periods for handgun purchases. Again using the Bureau of Alcohol, Tobacco, and Firearms' *State Laws and Published Ordinances—Firearms*, we identified states with waiting periods and did a Lexis search on those ordinances to determine exactly when those laws went into effect. Thirteen of the 19 states with waiting periods had them prior to the beginning of our sample period.[45]

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extensive description of penalties. The same basic law (790.161) is found throughout the years. An additional law (790.07) is found only in 1986. Georgia: A law (16-11-106) that does not appear in the 1986 edition appears in the 1989 and 1994 issues. The law involves possession of a firearm during commission of a crime and specifies the penalties associated with it. Because of the possibility that this legal change might have occurred at the same time as the 1989 changes in permitting rules, we used a Lexis search to check the legislative history of 16-11-106 and found that the laws were last changed in 1987, 2 years before the change in permitting rules (O.C.G.A. 16-11-106 (1996)). Idaho: There are no significant changes in Idaho over time. Indiana: No significant changes in these laws during the period. Maine: No significant changes in these laws during the period. Mississippi: Law 97-37-1 talks explicitly about penalties. It appears in the 1986 version, but not in the 1989 or the 1994 versions. Montana: Some changes in punishments related to unauthorized carrying of concealed weapons laws, but no changes in the punishment for using a weapon in a crime. New Hampshire: No significant changes in these laws during the period. North Dakota: No significant changes in these laws during the period. Oregon: No significant changes in these laws during the period. Pennsylvania: No significant changes in these laws during the period. South Dakota: Law 22-14-13, which specifies penalties for commission of a felony while armed appears in 1986, but not 1989. Vermont: Section 4005, which outlines the penalties for carrying a gun when committing a felony, appears in 1986, but not in 1989 or 1994. Virginia: No significant changes in these laws during the period. Washington: No significant changes in these laws during the period. West Virginia: Law 67-7-12 is on the books in 1994, but not the earlier versions. It involves punishment for endangerment with firearms. Removing Georgia from the sample, which was the only state that had gun laws changing near the year that the "shall issue" law went into affect, so that there is no chance that the other changes in gun laws might affect our results does not appreciably alter our results.

[43] Thomas B. Marvell & Carlisle E. Moody, The Impact of Enhanced Prison Terms for Felonies Committed with Guns, 33 Criminology 247, 258–61 (May 1995).

[44] Using Marvell and Moody's findings shows that the closest time period between these sentencing enhancements and changes in concealed weapon laws is 7 years (Pennsylvania). Twenty-six states passed their enhancement laws prior to the beginning of our sample period, and only four states passed these types of laws after 1981. Maine, which implemented its concealed handgun law in 1985, passed its sentencing enhancement laws in 1971.

[45] The states with a waiting period prior to the beginning of our sample include Alabama, California, Connecticut, Illinois, Maryland, Minnesota, New Jersey, North Carolina, Pennsylvania, Rhode Island, South Dakota, Washington, and Wisconsin. The District of Columbia

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IV. The Empirical Evidence

A. *Using County Data for the United States*

The first group of regressions reported in Table 3 attempts to explain the natural log of the crime rate for nine different categories of crime. The regressions are run using weighted ordinary least squares. While we are primarily interested in a dummy variable to represent whether a state has a "shall issue" law, we also control for each type of crime's arrest rate, demographic differences, and dummies for the fixed effects for years and counties. The results imply that "shall issue" laws coincide with fewer murders, rapes, aggravated assaults, and rapes.[46] On the other hand, auto theft and larceny rates rise. Both changes are consistent with our discussion on the direct and substitution effects produced by concealed weapons.[47] Rerunning these specifications with only the "shall issue" dummy, the "shall issue" dummy and the arrest rates, or simply just the "shall issue" dummy and the fixed year effects produces even more significant effects for the "shall issue" dummy.[48]

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also had a waiting period prior to the beginning of our sample. The states which adopted this rule during the sample include Hawaii, Indiana, Iowa, Missouri, Oregon, and Virginia.

[46] One possible concern with these initial results arises from our use of an aggregate public policy variable (state right-to-carry laws) on county-level data. See Bruce C. Greenwald, A General Analysis of the Bias in the Estimated Standard Errors of Least Squares Coefficients, 22 J. Econometrics 323–38 (August 1983); and Brent R. Moulton, An Illustration of a Pitfall in Estimating the Effects of Aggregate Variables on Micro Units, 72 Rev. Econ. & Stat. 334 (1990). As Moulton writes: "If disturbances are correlated within the groupings that are used to merge aggregate with micro data, however, then even small levels of correlation can cause the standard errors from the ordinary least squares (OLS) to be seriously biased downward." Yet, this should not really be a concern here because of our use of dummy variables for all the counties, which is equivalent to using state dummies as well as county dummies for all but one of the counties within each state. Using these dummy variables thus allows us to control for any disturbances that are correlated within any individual state. The regressions discussed in footnote 53 rerun the specifications shown in Table 3 but also include state dummies that are interacted with a time trend. This should thus not only control for any disturbances that are correlated with the states, but also for any disturbances that are correlated within a state over time. Finally, while right-to-carry laws are almost always statewide laws, there is one exception. Pennsylvania exempted its largest county (Philadelphia) from the law when it was passed in 1989, and it remained exempt from the law during the rest of the sample period.

[47] However, the increase in the number of property crimes is larger than the drop in the number of robberies.

[48] While we believe that such variables as the arrest rate should be included in any regressions on crime, one concern with the results reported in the tables is whether the relationship between the "shall issue" dummy and the crime rates still occurs even when all the other variables are not controlled for. Using weighted least squares and reporting only the "shall issue" coefficients, we estimated the following regression coefficients (absolute *t*-statistics are shown in parentheses):

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The results are large empirically. When state concealed handgun laws went into effect in a county, murders fell by 7.65 percent, and rapes and aggravated assaults fell by 5 and 7 percent.[49] In 1992, there were 18,469 murders, 79,272 rapes, 538,368 robberies, and 861,103 aggravated assaults in counties without "shall issue" laws. The coefficients imply that if these counties had been subject to state concealed handgun laws, murders in the United States would have declined by 1,414. Given the concern that has been raised about increased accidental deaths from concealed weapons, it is interesting to note that, for the most recent year that such a breakdown is available, the entire number of accidental handgun deaths in the United States in 1988 was 200. Of this total, 22 accidental deaths were in states with concealed handgun laws and 178 were in those without these laws. The reduction in murders is as much as eight times greater than the total number of accidental deaths in concealed handgun states. Thus, if our results are accurate, the net effect of allowing concealed handguns is clearly to save lives. Similarly, the results indicate that the number of rapes in

Endogenous Variables	Shall Issue Dummy Only	Shall Issue Dummy and Year Effects Only
Violent crimes	−.335 (22.849)	−.449 (30.092)
Murder	−.394 (19.095)	−.419 (19.829)
Rape	−.147 (8.030)	−.248 (13.34)
Aggravated assault	−.322 (21.932)	−.448 (30.356)
Robbery	−.485 (19.522)	−.561 (22.110)
Property crime	−.1603 (18.030)	−.186 (20.605)
Auto theft	−.268 (7.793)	−.358 (23.407)
Burglary	−.247 (26.381)	−.217 (22.739)
Larceny	−.101 (10.288)	−.136 (13.640)

Regressing the crime rates on only the "shall issue" dummy and the year and county dummies produces a "shall issue" coefficient that equals −.021 (t-statistic = 1.66) for violent crimes and .051 (t-statistic = 6.52) for property crimes. The other estimates discussed in the text produce similar results and are available on request from the authors.

[49] While we adopt the classifications used by Cramer and Kopel (*supra* note 9), some are more convinced by other classifications of the states (for example, Weil, *supra* note 26; and Teret, *supra* note 33). Setting the "shall issue" dummy for Maine to zero and rerunning the regressions shown in Table 3 results in the following "shall issue" coefficients (t-statistics in parentheses): −.0295 (2.955) for violent crimes, −0.813 (5.071) for murder, −.0578 (4.622) for rape, −.0449 (3.838) for aggravated assault, −.0097 (0.714) for robbery, .029 (3.939) for property crimes, .081 (6.942) for automobile theft, .0036 (0.466) for burglary, and .0344 (3.790) for larceny. Similarly, setting the "shall issue" dummy for Virginia to zero results in the following "shall issue" coefficients (t-statistics in parentheses): −.0397 (3.775) for violent crimes, −0.868 (5.138) for murder, −.0527 (4.007) for rape, −.05426 (4.410) for aggravated assault, −.0011 (0.076) for robbery, .0334 (4.326) for property crimes, .091 (7.373) for automobile theft, .0211 (2.591) for burglary, and .0348 (3.646) for larceny. As a final test, dropping both Maine and Virginia from the data set results in the following "shall issue" coefficients (t-statistics in parentheses): −.0233 (2.117) for violent crimes, −0.9698 (5.519) for murder, −.0629 (4.589) for rape, −.0313 (2.436) for aggravated assault, 0.006 (0.400) for robbery, .0361 (4.436) for property crimes, .0977 (7.607) for automobile theft, .0216 (2.526) for burglary, and .03709 (3.707) for larceny.

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TABLE 3

THE EFFECT OF "SHALL ISSUE" RIGHT-TO-CARRY FIREARMS LAWS ON THE CRIME RATE: NATIONAL COUNTY-LEVEL CROSS-SECTIONAL TIME-SERIES EVIDENCE

	ENDOGENOUS VARIABLES (Natural Logs of the Crime Rate per 100,000 People)								
EXOGENOUS VARIABLES	ln (Violent Crime Rate)	ln (Murder Rate)	ln (Rape Rate)	ln (Aggravated Assault Rate)	ln (Robbery Rate)	ln (Property Crime Rate)	ln (Burglary Rate)	ln (Larceny Rate)	ln (Auto Theft Rate)
Shall issue law adopted dummy	−.0490	−.0765	−.0527	−.0701	−.0221	.0269	.00048	.03342	.0714
	(5.017)	(4.660)	(4.305)	(6.137)	(1.661)	(3.745)	(.063)	(3.763)	(6.251)
	1%	2%	1%	1%	.3%	1%	.02%	1%	1%
Arrest rate for the crime category appropriate endogenous variable	−.00048	−.00139	−.00081	−.000896	−.00057	−.000759	−.0024	−.00018	−.00018
	(77.257)	(37.139)	(47.551)	(69.742)	(88.984)	(96.996)	(90.189)	(77.616)	(74.972)
	9%	7%	4%	9%	4%	10%	11%	4%	3%
Population per square mile	.00006	−.00002	−.00002	5.76E−06	.000316	4.83E−06	−.00007	.000037	.00048
	(3.684)	(.942)	(1.022)	(.320)	(15.117)	(.428)	(5.605)	(2.651)	(26.722)
	5%	1%	1%	.4%	17%	1%	9%	4%	36%
Real per capita income data:									
Personal income	7.92E−06	0.0000163	−5.85E−06	4.71E−06	4.73E−06	−.0000102	−.0000184	−.0000123	.000015
	(2.883)	(3.623)	(1.669)	(1.467)	(1.244)	(5.118)	(8.729)	(4.981)	(4.689)
	1%	2%	1%	1%	1%	3%	4%	2%	2%
Unemployment insurance	−.00022	−.00046	−.00047	−.00019	.00007	.00038	.00060	−.00019	.00021
	(3.970)	(5.260)	(6.731)	(2.904)	(.898)	(9.468)	(14.003)	(3.706)	(3.316)
	.07%	1%	1%	.05%	.01%	2%	3%	.08%	.06%
Income maintenance	−.0000699	.00025	−.00017	.000139	−.00032	.00019	.00039	.00002	.00033
	(.841)	(1.928)	(1.634)	(1.438)	(2.840)	(3.107)	(6.219)	(.320)	(3.452)
	.3%	1%	.7%	.7%	1%	2%	4%	.1%	2%
Retirement payments per person over 65	−1.97E−06	−.000013	−2.37E−06	−6.81E−06	−5.50E−06	−8.65E−06	−.0000106	−6.34E−06	−9.27E−06
	(.895)	(3.713)	(.861)	(2.651)	(1.835)	(5.371)	(6.273)	(3.186)	(3.613)
	.5%	3%	.4%	2%	1%	4%	7%	2%	2%

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Population	8.59E−08	−3.44E−08	−2.94E−07	4.54E−08	−6.10E−08	−2.18E−07	−2.14E−07	−3.10E−07	−4.06E−09
	(4.283)	(1.109)	(11.884)	(1.947)	(2.271)	(15.063)	(14.060)	(17.328)	(.177)
	1%	.4%	3%	.06%	.06%	6%	5%	6%	.05%
Race and age data (% of population):									
Black male 10–19	.05637	.1134	.04108	.0900695	.10548	.1287	.074	.1710	.0513
	(1.293)	(1.515)	(.722)	(1.767)	(1.752)	(4.068)	(2.214)	(4.366)	(1.007)
	5%	8%	3%	7%	5%	22%	11%	22%	4%
Black male 20–29	.0009	.0663	.0794	−.0528	−.0060	−.0143	−.0203	−.0057	.00665
	(.035)	(1.514)	(2.366)	(1.749)	(.168)	(.759)	(1.022)	(.245)	(.220)
Black male 30–39	.0419	.1085	−.0832	.2024	.0061	.04126	−.0074	.0044	.14955
	(1.063)	(1.640)	(1.617)	(4.424)	(.111)	(1.445)	(.246)	(.124)	(3.254)
Black male 40–49	−.0243	−.33549	.9029	−.3654	−.00867	−.02391	−.03132	.18939	−.6846
	(.300)	(2.498)	(8.562)	(3.860)	(.077)	(.406)	(.506)	(2.601)	(7.235)
Black male 50–64	.1816	−.34753	−.1509	.2861	−.00706	−.0519	.09135	−.1318	.05626
	(2.159)	(2.518)	(1.381)	(2.889)	(.060)	(.843)	(1.409)	(1.730)	(.569)
Black male over 65	.12165	−.14275	.4373	.1053	.17053	−.0367	.06132	−.0965	−.3384
	(1.337)	(.971)	(3.742)	(1.014)	(1.379)	(.567)	(.900)	(1.204)	(3.254)
Black female 10–19	−.00394	.0374	.0368	−.0692	−.18307	.0836	.0217	.1564	−.1766
	(.088)	(.490)	(.630)	(1.321)	(2.957)	(2.570)	(.631)	(3.883)	(3.372)
Black female 20–29	−.0993	−.2247	.1751	−.1938	−.2167	−.0996	−.1688	−.0075	−.2481
	(3.094)	(4.312)	(4.280)	(5.219)	(4.986)	(4.307)	(6.936)	(.264)	(6.711)
Black female 30–39	.1218	−.0828	.1489	.0947	.3808	.13409	.2721	.0944	.1701
	(3.383)	(1.409)	(3.228)	(2.265)	(7.691)	(5.137)	(9.909)	(2.923)	(4.072)
Black female 40–49	.0107	.59197	−.7396	.26946	−.06891	.05958	−.05022	−.0342	.4816
	(.158)	(5.321)	(8.431)	(3.387)	(.738)	(1.213)	(.970)	(.562)	(6.093)
Black female 50–64	−.2105	.20188	.1044	−.0532	.07078	−.0241	−.21799	.0100	.1153
	(2.826)	(1.648)	(1.076)	(.612)	(.684)	(.443)	(3.817)	(.149)	(1.321)
Black female over 65	−.2035	.3071	−.5164	−.1557	−.36915	−.2035	−.3877	−.1234	.2433
	(3.229)	(2.969)	(6.278)	(2.104)	(4.212)	(4.406)	(7.968)	(2.160)	(3.283)
White male 10–19	−.0060	−.0271	.0056	.03998	.00219	−.0066	−.0062	.00027	−.0568
	(.382)	(.935)	(.265)	(2.208)	(.098)	(.593)	(.523)	(.020)	(3.152)
White male 20–29	.00842	.0598	.03779	.0219	.0426	.00456	.01738	.00377	−.0200
	(.729)	(3.023)	(2.528)	(1.623)	(2.636)	(.542)	(1.958)	(.362)	(1.487)
White male 30–39	−.006	−.01289	−.0376	.0739	−.0706	−.0520	−.0268	−.0579	−.0592
	(.322)	(.371)	(1.444)	(3.206)	(2.507)	(3.633)	(1.779)	(3.268)	(2.583)

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TABLE 3 (*Continued*)

Exogenous Variables	Endogenous Variables (Natural Logs of the Crime Rate per 100,000 People)								
	ln (Violent Crime Rate)	ln (Murder Rate)	ln (Rape Rate)	ln (Aggravated Assault Rate)	ln (Robbery Rate)	ln (Property Crime Rate)	ln (Burglary Rate)	ln (Larceny Rate)	ln (Auto Theft Rate)
White male 40–49	−.0095	−.02078	.0898	−.0406	−.11188	−.14626	−.0995	−.1271	−.0962
	(.375)	(.462)	(2.685)	(1.369)	(3.099)	(7.981)	(5.147)	(5.600)	(3.265)
White male 50–64	−.00575	−.0458	.0397	−.0904	−.14195	−.1282	.0729	−.1071	−.2749
	(.236)	(1.074)	(1.237)	(3.184)	(4.104)	(7.309)	(3.942)	(4.929)	(9.771)
White male over 65	−.1291	.02336	.0441	−.1651	.0421	−.1442	−.1194	−.13975	−.1104
	(6.065)	(.618)	(1.547)	(6.627)	(1.370)	(7.635)	(8.887)	(6.264)	(5.651)
White female 10–19	.02346	.0452	.0741	−.00863	.0561	.0824	.0816	.0865	.0866
	(1.410)	(1.473)	(3.307)	(.448)	(2.359)	(6.907)	(6.474)	(5.863)	(4.513)
White female 20–29	.0128	−.0405	.0551	.03926	.01327	−.0086	−.0421	.02928	−.0289
	(.896)	(1.673)	(2.999)	(2.348)	(.669)	(.828)	(3.832)	(2.272)	(1.739)
White female 30–39	.01878	.0447	.14127	.0299	−.0079	.0388	.0171	.06611	−.1017
	(.890)	(1.209)	(5.092)	(1.215)	(.265)	(2.545)	(1.065)	(3.502)	(4.165)
White female 40–49	−.0901	−.00077	−.0689	−.0031	−.02258	.0584	−.0354	.0741	−.0172
	(3.553)	(.017)	(2.061)	(.106)	(.626)	(3.193)	(1.833)	(3.270)	(.585)
White female 50–64	.00332	.0119	.0213	.07882	.03094	.1044	.06396	.1100	.10687
	(.163)	(.335)	(.794)	(3.313)	(1.072)	(7.103)	(4.126)	(6.042)	(4.534)
White female over 65	.0558	−.0681	.0578	.0836	−.0870	.02027	.0483	.03631	−.0459
	(3.719)	(2.588)	(2.904)	(4.761)	(4.046)	(1.867)	(4.218)	(2.701)	(2.636)
Other male 10–19	.2501	.6624	.5572	.1872	.5360	.1587	.2708	.1487	.6039
	(2.179)	(3.022)	(3.546)	(1.389)	(3.124)	(1.917)	(3.100)	(1.451)	(4.532)
Other male 20–29	−.1229	.14495	−.1656	−.0573	.0129	.0786	.0007	.2037	−.4066
	(1.966)	(1.367)	(2.065)	(.794)	(.149)	(1.748)	(.015)	(3.661)	(5.667)

Other male 30–39	.23126	−.2958	−.1907	.4015	−.1021	−.1779	−.4257	−.0415	.64667
	(1.866)	(1.370)	(1.161)	(2.777)	(.572)	(1.996)	(4.532)	(.376)	(4.525)
Other male 40–49	.12678	−.35775	−.2406	−.1903	.77753	.0287	.2356	−.2320	.4640
	(.824)	(1.341)	(1.180)	(1.060)	(3.538)	(.261)	(2.027)	(1.700)	(2.620)
Other male 50–64	−.0904	−.1572	.2403	−.2829	−.39616	−.0211	.2676	−.1952	−.4198
	(.605)	(.623)	(1.240)	(1.612)	(1.869)	(.194)	(2.330)	(1.449)	(2.411)
Other male over 65	.3469	−.2585	.8709	1.0193	−.267	−.0785	.1863	−.2342	−.1792
	(2.222)	(1.019)	(4.389)	(5.566)	(1.237)	(.688)	(1.549)	(1.659)	(.985)
Other female 10–19	−.0303	−.7299	−.1095	.1207	−.3461	−.1769	−.2861	−.2304	−.2739
	(.253)	(3.185)	(.670)	(.857)	(1.936)	(2.049)	(3.140)	(2.155)	(1.971)
Other female 20–29	−.1323	−.3293	.2093	.0933	−.3033	−.1464	−.3243	−.3334	−.5646
	(1.253)	(2.145)	(1.670)	(.557)	(1.535)	(1.849)	(3.366)	(2.435)	(4.768)
Other female 30–39	−.2187	−.1103	.1556	−.1674	−.2158	−.0874	.2703	−.2838	−.7516
	(1.823)	(.531)	(.988)	(1.189)	(1.253)	(1.005)	(2.949)	(2.638)	(5.395)
Other female 40–49	−.1413	.56562	.07877	.1831	−.48132	.2452	−.2767	.6971	−.1461
	(1.011)	(2.343)	(.429)	(1.116)	(2.407)	(2.432)	(2.600)	(5.574)	(.901)
Other female 50–64	−.0972	.4354	−.6588	−.2700	.36585	−.0491	−.4901	.1615	.3078
	(.607)	(1.612)	(3.184)	(1.439)	(1.620)	(.424)	(4.006)	(1.125)	(1.659)
Other female over 65	−.4376	.0569	−.3715	−.4428	−.3596	−.1052	−.1408	−.0478	−.587
	(3.489)	(.277)	(2.324)	(3.012)	(2.058)	(1.148)	(1.458)	(.422)	(4.020)
Intercept	5.8905	2.0247	.4189	4.2648	5.4254	9.1613	8.7058	7.596	8.332
	(15.930)	(3.326)	(.890)	(9.857)	(10.623)	(33.945)	(30.614)	(22.751)	(19.372)
N	43,451	26,458	33,865	43,445	34,949	45,940	45,769	45,743	43,589
F-statistic	115.11	37.95	44.93	70.47	131.75	87.22	82.16	59.33	116.35
Adjusted R^2	.8925	.8060	.8004	.8345	.9196	.8561	.8490	.8016	.8931

NOTE.—The absolute *t*-statistics are in parentheses, and the percentage reported below that for some of the numbers is the percent of a standard deviation change in the endogenous variable that can be explained by a 1 standard deviation change in the exogenous variable. Year and county dummies are not shown. All regressions use weighted least squares where the weighting is each county's population.

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states without "shall issue" laws would have declined by 4,177, aggravated assaults by 60,363, and robberies by 11,898.[50]

On the other hand, property crime rates definitely increased after "shall issue" laws were implemented. The results are equally dramatic. If states without concealed handgun laws had passed such laws, there would have been 247,165 more property crimes in 1992 (a 2.7 percent increase). Thus, criminals respond substantially to the threat of being shot by instead substituting into less risky crimes.[51]

A recent National Institute of Justice study[52] estimates the costs of different types of crime based on lost productivity; out-of-pocket expenses such as medical bills and property losses; and losses for fear, pain, suffering, and lost quality of life. While there are questions about using jury awards to measure losses such as fear, pain, suffering, and lost quality of life, the estimates provide us one method of comparing the reduction in violent crimes with the increase in property crimes. Using the numbers from Table 3, the estimated gain from allowing concealed handguns is over $5.74 billion in 1992 dollars. The reduction in violent crimes represents a gain of $6.2 bil-

[50] Given the possible relationship between drug prices and crime, we reran the regressions in Table 3 by including an additional variable for cocaine prices. One argument linking drug prices and crime is that if the demand for drugs is inelastic and if people commit crimes in order to finance their habits, higher drug prices might lead to increased levels of crime. Using the Drug Enforcement Administration's STRIDE data set from 1977 to 1992 (with the exceptions of 1988 and 1989), Michael Grossman, Frank J. Chaloupka, & Charles C. Brown, The Demand for Cocaine by Young Adults: A Rational Addiction Approach (working paper, National Bureau of Economic Research, July 1996), estimate the price of cocaine as a function of its purity, weight, year dummies, year dummies interacted with eight regional dummies, and individual city dummies. There are two problems with this measure of predicted prices: (1) it removes observations during a couple of important years during which changes were occurring in concealed handgun laws and (2) the predicted values that we obtained from this ignored the city-level observations. The reduced number of observations provides an important reason why we do not include this variable in the regressions shown in Table 3. However, the primary impact of including this new variable is to make the "shall issue" coefficients in the violent crime regressions even more negative and more significant (for example, the coefficient for the violent crime regression is now −.075, −.10 for the murder regression, −.077 for rape, and −.11 for aggravated assault, with all of them significant at more than the .01 level). Only for the burglary regression does the "shall issue" coefficient change appreciably: it is now negative and insignificant. The variable for drug prices itself is negatively related to murders and rapes and positively and significantly related to all the other categories of crime at least at the .01 level for a one-tailed *t*-test. We would like to thank Michael Grossman for providing us with the original regressions on drug prices from his paper.

[51] By contrast, if the question had instead been what would the difference in crime rates have been between either all states or no states adopting right-to-carry handgun laws, the case of all states adopting concealed handgun laws would have produced 2,020 fewer murders, 5,747 fewer rapes, 79,001 fewer aggravated assaults, and 14,862 fewer robberies. By contrast, property crimes would have risen by 336,409.

[52] Ted R. Miller, Mark A. Cohen, & Brian Wiersema, Victim Costs and Consequences: A New Look (February 1996).

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lion ($4.28 billion from murder, $1.4 billion from aggravated assault, $374 million from rape, and $98 million from robbery), while the increase in property crimes represents a loss of $417 million ($343 million from auto theft, $73 million from larceny, and $1.5 million from burglary). However, while $5.7 billion is substantial, to put it into perspective, it equals only about 1.23 percent of the total aggregate losses from these crime categories. These estimates are probably most sensitive to the value of life used (in the Miller *et al.* study this was set at about $3 million in 1992 dollars). Higher estimated values of life will increase the net gains from concealed handgun use, while lower values of life will reduce the gains.[53] To the extent that people are taking greater risks toward crime because of any increased safety produced by concealed handgun laws,[54] these numbers will underestimate the total savings from concealed handguns.

The arrest rate produces the most consistent effect on crime. Higher arrest rates imply lower crime rates for all categories of crime. A 1 standard deviation change in the probability of arrest accounts for 3–17 percent of a 1 standard deviation change in the various crime rates. The crime most responsive to arrest rates is burglary (11 percent), followed by property crimes (10 percent); aggravated assault and violent crimes more generally (9 percent); murder (7 percent); rape, robbery, and larceny (4 percent); and auto theft (3 percent).

For property crimes, a 1 standard deviation change in the percentage of the population that is black, male, and between 10 and 19 years of age explains 22 percent of these crime rates. For violent crimes, the same number is 5 percent. Other patterns also show up in the data. For example, more black females between the ages of 20 and 39, more white females between the ages of 10 and 39 and those over 65, and other race females between 20 and 29 are positively and significantly associated with a greater number of rapes occurring. Population density appears to be most important in ex-

[53] We reran the specifications shown in Table 3 by also including state dummies which were each interacted with a time trend variable. In this case, all of the concealed handgun dummies were negative, though the coefficients were not statistically significant for aggravated assault and larceny. Under this specification, adopting concealed handgun laws in those states currently without them would have reduced 1992 murders by 1,839, rapes by 3,727, aggravated assaults by 10,990, robberies by 61,064, burglaries by 112,665, larcenies by 93,274, and auto thefts by 41,512. The total value of this reduction in crime in 1992 dollars would have been $7.02 billion. With the exceptions of aggravated assault and burglary, violent crimes still experienced larger drops from the adoption of concealed handgun laws than did property crimes. Rerunning the specifications in Table 3 without either the percentage of the populations that fall into the different sex, race, and age categories or without the measures of income tended to produce similar though somewhat more significant results with respect to concealed handgun laws. The estimated gains from passing concealed handgun laws were also larger.

[54] Again see Peltzman, *supra* note 31.

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plaining robbery, burglary, and auto theft rates, with a 1 standard deviation change in population density being able to explain 36 percent of a 1 standard deviation change in auto theft. Perhaps most surprising is the relatively small, even if frequently significant, effect of income on crime rates. A 1 standard deviation change in real per capita income explains no more than 4 percent of a 1 standard deviation change in crime, and in seven of the specifications it explains 2 percent or less of the change. If the race, sex, and age variables are replaced with variables showing the percentage of the population that is black and the percent that is white, 50 percent of a standard deviation in the murder rate is explained by the percentage of the population that is black. Given the high rates at which blacks are arrested and incarcerated or are victims of crimes, this is not unexpected.

Given the wide use of state-level crime data by economists and the large within-state heterogeneity shown in Table 1, Table 4 provides a comparison by reestimating the specifications reported in Table 3 using state-level rather than county-level data. The only other difference in the specification is the replacement of county dummies with state dummies. While the results in these two tables are generally similar, two differences immediately manifest themselves: (1) all the specifications now imply a negative and almost always significant relationship between allowing concealed handguns and the level of crime and (2) concealed handgun laws explain much more of the variation in crime rates while arrest rates (with the exception of robbery) explain much less of the variation.[55] Despite the fact that concealed handgun laws appear to lower both violent and property crime rates, the results still imply that violent crimes are much more sensitive to the introduction of concealed handguns, with violent crimes falling three times more than property crimes. These results imply that if all states had adopted concealed handgun laws in 1992, 1,592 fewer murders and 4,811 fewer rapes would have taken place.[56] Overall, Table 4 implies that the estimated gain from the lower crime produced by handguns was $8.3 billion in 1992 dollars (see Table 5). Yet, at least in the case of property crimes, the concealed handgun law coefficients' sensitivity to whether these regressions are run at the state or county level suggests caution in aggregating these data into such large units as states.

[55] Other differences also arise in the other control variables such as those relating the percentage of the population of a certain race, sex, and age. For example, the percentage of black males in the population between 10 and 19 is no longer statistically significant.

[56] By contrast, if the question had instead been what would the difference in crime rates have been between either all states or no states adopting right-to-carry handgun laws, the case of all states adopting concealed handgun laws would have produced 2,286 fewer murders, 9,630 fewer rapes, 50,353 fewer aggravated assaults, and 92,264 fewer robberies. Property crimes would also have fallen by 659,061.

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TABLE 4

QUESTIONS OF AGGREGATING THE DATA: NATIONAL STATE-LEVEL CROSS-SECTIONAL TIME-SERIES EVIDENCE

Exogenous Variables	ln (Violent Crime Rate)	ln (Murder Rate)	ln (Rape Rate)	ln (Aggravated Assault Rate)	ln (Robbery Rate)	ln (Property Crime Rate)	ln (Auto Theft Rate)	ln (Burglary Rate)	ln (Larceny Rate)
Shall issue law adopted dummy	−.1011	−.0862	−.0607	−.1090	−.1421	−.0419	−.0088	−.0825	−.0314
	(3.181)	(2.297)	(1.955)	(3.365)	(3.071)	(1.907)	(.206)	(3.146)	(1.452)
	5.8%	5.0%	4.7%	6.5%	5.7%	4.8%	.43%	7.6%	3.8%
Arrest rate for the crime category corresponding to the appropriate endogenous variable	−.000802	−.00073	−.000205	−.00153	−.0105	−.00599	−.00145	−.00715	−.00657
	(2.920)	(3.979)	(1.823)	(4.230)	(21.030)	(4.591)	(3.727)	(3.772)	(6.257)
	1.5%	5.3%	.69%	3.9%	14.4%	8.1%	6.5%	7.6%	10.4%
Intercept	2.093	−.2715	−1.2892	1.4156	−1.4719	8.5370	8.5195	7.6149	7.7438
	(1.089)	(.121)	(.686)	(.728)	(.531)	(6.502)	(4.687)	(4.847)	(5.985)
N	804	809	804	811	811	811	811	811	811
F-statistic	139.45	103.83	76.44	132.60	126.64	80.25	174.63	85.06	76.83
Adjusted R^2	.9490	.9322	.9103	.9461	.9437	.9135	.9586	.9181	.9100

NOTE.—Except for the use of state dummies in place of county dummies, the control variables are the same as those used in Table 3 including year dummies, although they are not all reported. Absolute t-statistics are in parentheses, and the percentage reported below that for some of the numbers is the percentage of a standard deviation change in the endogenous variable that can be explained by a 1 standard deviation change in the exogenous variable. All regressions use weighted least squares where the weighting is each state's population.

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Table 6 examines whether changes in concealed handgun laws and arrest rates have differential effects in high- or low-crime counties. To test this, the regressions shown in Table 3 were reestimated first using the sample above the median crime rate by type of crime and then separately using the sample below the median. High crime rates may also breed more crime because the stigma from arrest may be less when crime is rampant.[57] If so, any change in apprehension rates should produce a greater reputational effect and thus greater deterrence in low-crime than high-crime counties.

The results indicate that the concealed handgun law's coefficient signs are consistently the same for both low- and high-crime counties, though for two of the crime categories (rape and aggravated assault) concealed handgun laws have only statistically significant effects in the relatively high-crime counties. For most violent crimes such as murder, rape, and aggravated assault, concealed weapons laws have a much greater deterrent effect in high-crime counties, while for robbery, property crimes, auto theft, burglary, and larceny the effect appears to be greatest in low-crime counties. The table also shows that the deterrent effect of arrests is significantly different at least at the 5 percent level between high- and low-crime counties for eight of the nine crime categories (the one exception being violent crimes). The results do not support the claim that arrests produce a greater reputational penalty in low-crime areas. While additional arrests in low- and high-crime counties produce virtually identical changes in violent crime rates, the arrest rate coefficient for high-crime counties is almost four times larger than it is for low-crime counties.

One relationship in these first three sets of regressions deserves a special comment. Despite the relatively small number of women using concealed handgun permits, the concealed handgun coefficient for explaining rapes is consistently comparable in size to the effect that this variable has on other violent crime rates. In the states of Washington and Oregon in January 1996, women constituted 18.6 and 22.9 percent of those with concealed handgun permits for a total of 118,728 and 51,859 permits, respectively.[58] The time-series data which are available for Oregon during our sample period even indicates that only 17.6 percent of permit holders were women in 1991. While it is possible that the set of women who are particularly likely to be raped might already carry concealed handguns at much higher rates

[57] Eric Rasmusen, Stigma and Self-Fulfilling Expectations of Criminality, 39 J. Law & Econ. 519 (1996).

[58] The Washington State data were obtained from Joe Vincent of the State Department of Licensing Firearms Unit in Olympia, Washington. The Oregon state data were obtained from Mike Woodward, with the Law Enforcement Data System, Department of State Police, Salem, Oregon.

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TABLE 5

THE EFFECT OF CONCEALED HANDGUNS ON VICTIM COSTS: WHAT IF ALL STATES HAD ADOPTED "SHALL ISSUE" LAWS?

CRIME CATEGORY	CHANGE IN NUMBER OF CRIMES IF THE STATES WITHOUT "SHALL ISSUE" LAWS IN 1992 HAD ADOPTED THE LAW		CHANGE IN VICTIM COSTS IF THE STATES WITHOUT "SHALL ISSUE" LAWS IN 1992 HAD ADOPTED THE LAW (IN 1992 DOLLARS)	
	Estimates Using County-Level Data	Estimates Using State-Level Data	Estimates Using County-Level Data	Estimates Using State-Level Data
Murder	−1,414	−1,592	−4,281,608,125	−4,820,594,155
Rape	−4,177	−4,811	−374,277,659	−431,086,861
Aggravated assault	−60,363	−93,860	−1,405,042,403	−2,184,737,007
Robbery	−11,898	−62,852	−98,033,414	−517,868,225
Burglary	1,052	−180,813	1,516,890	−260,716,190
Larceny	191,743	−180,261	73,068,706	−68,693,188
Auto theft	89,928	−11,084	342,694,264	−42,236,828
Total change in annual victim costs			−5,741,681,741	−8,325,932,454

NOTE.—The table uses 1996 estimates of the costs of crime in 1992 dollars from Ted R. Miller, Mark A. Cohen, & Brian Wiersema, Victim Costs and Consequences: A New Look (February 1996).

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TABLE 6

QUESTIONS OF AGGREGATING THE DATA: DO LAW ENFORCEMENT AND "SHALL ISSUE" LAWS HAVE THE SAME EFFECT IN HIGH AND LOW CRIME AREAS?

Exogenous Variables	ln (Violent Crime Rate)	ln (Murder Rate)	ln (Rape Rate)	ln (Aggravated Assault Rate)	ln (Robbery Rate)	ln (Property Crime Rate)	ln (Burglary Rate)	ln (Larceny Rate)	ln (Auto Theft Rate)
A. Sample where county crime rates are above the median:									
Shall issue law adopted dummy	−.0597	−.0988	−.0719	−.04468	−.0342	.0161	.0036	.0296	.0524
	(7.007)	(7.173)	(7.415)	(4.411)	(3.012)	(2.943)	(.533)	(5.474)	(5.612)
Arrest rate for the crime category corresponding to the appropriate endogenous variable	−.000523	−.00049	−.000326	−.00063	−.00294	−.005354	−.00565	−.00596	−.00133
	(−17.661)	(11.472)	(3.8130)	(18.456)	(9.381)	(33.669)	(27.390)	(41.585)	(11.907)
B. Sample where county crime rates are below the median:									
Shall issue law adopted dummy	−.0369	−.0436	−.0304	−.0025	−.0787	.0881	.0297	.0874	.07226
	(1.934)	(1.938)	(.978)	(.013)	(2.978)	(5.801)	(2.110)	(5.246)	(3.276)
Arrest rate for the crime category corresponding to the appropriate endogenous variable	−.0005242	−.00123	−.000656	−.00068	−.0003699	−.001354	−.0027135	−.000998	−.0001412
	(30.302)	(25.43)	(31.542)	(37.306)	(9.018)	(39.101)	(41.603)	(37.559)	(62.596)

NOTE.—The control variables are the same as those used in Table 3 including year and county dummies, although they are not all reported. Absolute t-statistics are in parentheses. All regressions use weighted least squares where the weighting is each county's population.

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than the general population of women, the results are at least suggestive that rapists are particularly susceptible to this form of deterrence. Possibly this arises since providing a woman with a gun has a much bigger effect on her ability to defend herself against a crime than providing a handgun to a man. Thus even if relatively few women carry handguns, the expected change in the cost of attacking women could still be nearly as great. To phrase this differently, the external benefits to other women from a woman carrying a concealed handgun appear to be large relative to the gain produced by an additional man carrying a concealed handgun. If concealed handgun use were to be subsidized to capture these positive externalities, these results are consistent with efficiency requiring that women receive the largest subsidies.[59]

As mentioned in Section II, an important concern with these data is that passing a concealed handgun law should not affect all counties equally. In particular, we expect that it was the most populous counties that most restricted people's ability to carry concealed weapons. To test this, Table 7 repeats all the regressions in Table 3 but instead interacts the shall issue law adopted dummy with county population. While all the other coefficients remain virtually unchanged, this new interaction retains the same signs as those for the original shall issue dummy, and in all but one case the coefficients are more significant. The coefficients are consistent with the hypothesis that the new laws produced the greatest change in the largest counties. The larger counties have a much greater response in both directions to changes in the laws. Violent crimes fall more and property crimes rise more in the largest counties. The bottom of the table indicates how these effects vary for different size counties. For example, passing a concealed handgun law lowers the murder rate in counties 2 standard deviations above the mean population by 12 percent, 7.4 times more than a shall issue law lowers murders for the mean population city. While the law enforcement officers we talked to continually mentioned population as being the key variable, we also reran these regressions using population density as the variable that we interacted with the shall issue dummy. The results remain very similar to those reported.

Admittedly, although arrest rates and county fixed effects are controlled for, these regressions have thus far controlled for expected penalties in a limited way. Table 8 reruns the regressions in Table 7 but includes either

[59] Unpublished information obtained by Kleck and Gertz, *supra* note 4, in their 1995 National Self-Defense Survey implies that women were as likely as men to use handguns in self-defense in or near their home (defined as in their yard, carport, apartment hall, street adjacent to home, detached garage, and so on), but that women were less than half as likely to use a gun in self-defense away from home.

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TABLE 7

CONTROLLING FOR THE FACT THAT LARGER CHANGES IN CRIME RATES ARE EXPECTED IN THE MORE POPULOUS COUNTIES WHERE THE CHANGE IN THE LAW CONSTITUTED A BIGGER BREAK WITH PAST POLICIES

Exogenous Variables	ln (Violent Crime Rate)	ln (Murder Rate)	ln (Rape Rate)	ln (Aggravated Assault Rate)	ln (Robbery Rate)	ln (Property Crime Rate)	ln (Burglary Rate)	ln (Larceny Rate)	ln (Auto Theft Rate)
Shall issue law adopted dummy *county population	−9.41E−08	−2.07E−07	−7.83E−08	−1.06E−07	−2.29E−08	5.18E−08	6.96E−09	4.90E−08	1.40E−07
	(6.001)	(7.388)	(4.043)	(5.784)	(1.295)	(4.492)	(.572)	(3.432)	(7.651)
Arrest rate for the crime category corresponding to the appropriate endogenous variable	−.000475	−.00139	−.000807	−.000895	−.000575	−.000759	−.002429	−.000177	−.0001754
	(77.222)	(37.135)	(47.535)	(69.663)	(88.980)	(97.027)	(90.185)	(77.620)	(75.013)
N	43,451	26,458	33,865	43,445	34,949	45,940	45,769	45,743	43,589
F-statistic	115.15	38.02	44.92	70.46	131.74	87.23	82.16	59.33	116.41
Adjusted R^2	.8925	.8062	.8004	.8345	.9196	.8561	.8490	.8016	.8931

	Violent Crimes	Murder	Rape	Aggravated Assault	Robbery	Property Crimes	Auto Theft	Burglary	Larceny
Implied percent change in crime rate: The effect of the "shall issue" interaction coefficient evaluated at different levels of county populations:									
1/2 Mean = 37,887	−.36	−.78	−.3	−.4	−.1	.2	.03	.2	.5
Mean = 75,773	−.71	−1.6	−.6	−.8	−.2	.4	.05	.4	1.1
Plus 1 SD = 326,123	−3.1	−6.8	−2.6	−3.5	−.7	1.7	.23	1.6	4.6
Plus 2 SD = 576,474	−5.4	−11.9	−4.5	−6.1	−1.3	2.99	.4	2.8	8.1
% of a 1 standard deviation change in corresponding crime rate that can be explained by a 1 standard deviation change in the arrest rate for that crime	9	7	4	9	4	10	11	4	3

NOTE.—The control variables are the same as those used in Table 3 including year and county dummies, although they are not reported since the coefficient estimates are very similar to those reported earlier. Absolute *t*-statistics are in parentheses. All regressions use weighted least squares where the weighting is each county's population.

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TABLE 8

USING OTHER CRIME RATES THAT ARE RELATIVELY UNRELATED TO CHANGES IN "SHALL ISSUE" RULES AS A METHOD OF CONTROLLING FOR OTHER CHANGES IN THE LEGAL ENVIRONMENT: CONTROLLING FOR ROBBERY AND BURGLARY RATES

	ENDOGENOUS VARIABLES								
EXOGENOUS VARIABLES	ln (Net Violent Crime Rate)	ln (Murder Rate)	ln (Rape Rate)	ln (Aggravated Assault Rate)	ln (Robbery Rate)	ln (Property Crime Rate)	ln (Burglary Rate)	ln (Larceny Rate)	ln (Auto Theft Rate)
Controlling for robbery rates:									
Shall issue law adopted dummy *county population	−1.03E−07	−1.72E−07	7.73E−08	−1.03E−07	...	5.61E−08	−3.50E−09	5.35E−08	1.47E−07
	(6.318)	(7.253)	(4.049)	(5.777)		(5.206)	(.304)	(3.911)	(8.844)
Arrest rate for the crime category corresponding to the appropriate endogenous variable	−.0003792	−.0013449	.00073	−.000776	...	−.0006448	−.0020339	−.0001547	−.0001382
	(57.644)	(36.240)	(42.672)	(60.834)		(86.517)	(77.992)	(69.968)	(63.888)
ln(Robbery Rate)	.1083118	.116406	.0983088	.1196466	...	.1176149	.1135451	.1164045	.2173908
	(46.370)	(24.616)	(30.363)	(47.469)		(78.825)	(70.826)	(61.762)	(92.212)
N	43,197	26,458	33,865	43,445	...	45,940	45,769	45,743	43,589
F-statistic	81.93	39.19	46.55	75.09	...	101.83	93.39	65.82	143.54
Adjusted R^2	.8555	.8111	.8062	.8433	...	.8744	.8649	.8179	.9117
Controlling for burglary rates:									
Shall issue law adopted dummy *county population	−9.52E−08	1.73E−07	−8.03E−08	−1.03E−07	−1.47E−08	7.23E−08	...	5.50E−08	1.45E−07
	(6.937)	(7.434)	(4.356)	(6.072)	(.759)	(6.854)		(4.769)	(8.943)
Arrest rate for the crime category corresponding to the appropriate endogenous variable	−.00026	−.00128	−.00051	−.00054	−.000429	−.000469	...	−.000102	−.000116
	(44.982)	(35.139)	(30.010)	(42.883)	(69.190)	(61.478)		(53.545)	(53.961)
ln(Burglary Rate)	.5667123	.4459916	.4916113	.5302516	.6719892	.5773792	...	.6009071	.6416852
	(110.768)	(37.661)	(56.461)	(83.889)	(78.531)	(155.849)		(150.635)	(106.815)
N	43,451	26,458	33,865	43,445	34,949	45,813	...	45,743	43,589
F-statistic	154.04	40.78	50.59	84.97	159.18	123.99	...	98.08	152.82
Adjusted R^2	.9176	.8173	.8191	.8591	.9327	.8949	...	.8706	.9167

NOTE.—While not all coefficient estimates are reported, all the control variables are the same as those used in Table 3 including year and county dummies. Absolute *t*-statistics are in parentheses. All regressions use weighted least squares where the weighting is each county's population. Net violent and property crime rates are respectively net of robbery and burglary crime rates to avoid producing any artificial collinearity. Likewise, the arrest rates for those values subtract out that portion of the corresponding arrest rates due to arrests for robbery and burglary.

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the burglary or robbery rates to proxy for other changes in the criminal justice system. Robbery and burglary are the violent and property crime categories that are the least related to changes in concealed handgun laws, but they are still positively correlated with all the other types of crimes. One additional minor change is made in two of the earlier specifications. In order to avoid any artificial collinearity either between violent crime and robbery or between property crimes and burglary, violent crimes net of robbery and property crimes net of burglary are used as the endogenous variables when robbery or burglary are controlled for.

Some evidence that burglary or robbery rates will proxy for other changes in the criminal justice system can be seen in their correlations with other crime categories. The Pearson correlation coefficient between robbery and the other crime categories ranges between .49 and .80, and all are statistically significant at least at the .0001 level. For burglary the correlations range from .45 to .68, and they are also equally statistically significant. The two sets of specifications reported in Table 8 closely bound our earlier estimates, and the estimates continue to imply that the introduction of concealed handgun laws coincided with similarly large drops in violent crimes and increases in property crimes. The only difference with the preceding results is that they now imply that the effect on robberies is statistically significant. The estimates on the other control variables also essentially remain unchanged.

We also reestimated the regressions in Table 3 using first differences on all the control variables (see Table 9). These regressions were run using a dummy variable for the presence of "shall issue" concealed handgun laws and differencing that variable, and the results consistently indicate a negative and statistically significant effect from the legal change for violent crimes, rape, and aggravated assault. Shall issue laws negatively affect murder rates in both specifications, but the effect is statistically significant only when the shall issue variable is also differenced. The property crime results are also consistent with those shown in the previous tables, showing a positive effect of shall issue laws on crime rates. Perhaps not surprisingly, the results imply that the gun laws immediately altered crime rates, but that an additional change was spread out over time, possibly because concealed handgun use did not instantly move to its new steady-state level (for example, in 1994, Oregon permits increased by 50 percent and Pennsylvania's by 16 percent even though both ordinances had been in effect for at least 4 years). The annual decrease in violent crimes averaged about 2 percent, while the annual increase in property crimes averaged about 5 percent.

The short and long term effects of these legal changes were further examined by reestimating the regressions in Tables 3 and 7 with a time trend for the number of years after the law has been in effect and that time trend

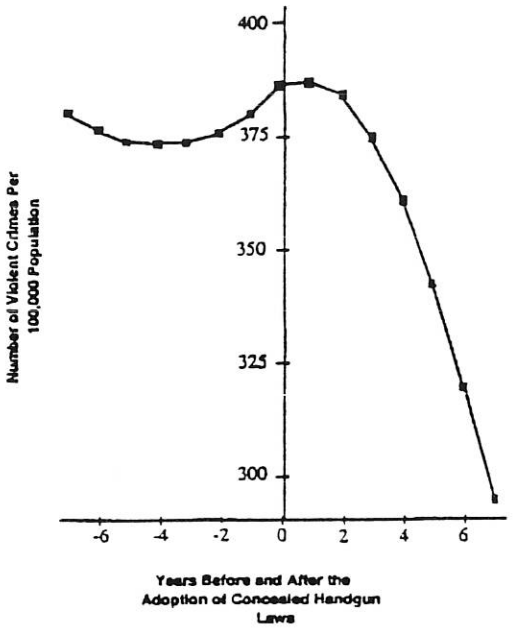

FIGURE 1.—The Effect of Concealed Handguns on Violent Crimes

squared. A similar set of time trends were also added for before the law went into effect to test whether there were systematic changes in crime leading up to the passage of the law. While not shown, these regression results provide consistent strong evidence that the deterrent impact of concealed handguns increases with time. For most violent crimes, the time trend leading up to the adoption of the laws indicates that crime was rising prior to the laws being enacted. Figure 1 shows how the violent crime rate varies before and after the implementation of these nondiscretionary permit laws. Using restricted least squares to compare whether the crime rate trends before and after the enactment of the laws were the same, *F*-tests reject that hypothesis at least at the 10 percent level for all the crime categories except aggravated assault and larceny, where the *F*-tests are only significant at the 20 percent level.

All the results in Tables 3, 6, and 7 were reestimated to deal with the concerns raised in Section II over the "noise" in arrest rates arising from the timing of offenses and arrests and the possibility of multiple offenders. We reran all the regressions in this section first by limiting the sample to those counties over 10,000, 100,000, and then 200,000 people. Consistent with the evidence reported in Table 7, the more the sample was limited to

larger population counties the stronger and more statistically significant was the relationship between concealed handgun laws and the previously reported effects on crime. The arrest rate results also tended to be stronger and more significant. We also tried rerunning all the regressions by redefining the arrest rate as the number of arrests over the last 3 years divided by the total number of offenses over the last 3 years. Despite the reduced sample size, the results remained similar to those already reported.

Two of the most common laws affecting the use of handguns are increased sentencing penalties when crimes are committed using a gun and waiting periods before a citizen can obtain a gun. To test what role these two types of laws may have played in changing crime rates, we reran the regressions in Tables 3 and 4 by adding a dummy variable to control for state laws that increase sentencing penalties when deadly weapons are used and variables to measure the impact of waiting periods.[60] Because we have no strong prior beliefs about whether the effect of waiting periods on crime is linear with respect to the length of the waiting period, we included not only a dummy variable for when the waiting period is in effect but also variables for the length of the waiting period in days and the length in days squared. In both sets of regressions, the dummy variable for the presence of "shall issue" concealed handgun laws remains generally consistent with the results reported earlier, though the "shall issue" coefficients for robbery in the county-level regressions and for property crimes using the state levels are no longer statistically significant. While the coefficients for arrest rates are not reported, they remain very similar to those shown previously.

With respect to the other gun laws, the pattern shown in Table 10 is less clear. The county-level data imply that increased sentencing penalties when deadly weapons are used reduce violent crimes (particularly, aggravated assault and robbery), but this effect is not statistically significant for violent crimes using state-level data. The state-level data also indicate no statistically significant nor economically consistent relationship between either the presence of waiting periods or their length and crime. While the county-level data frequently imply a relationship between murder, rape, aggravated assault, and robbery, the coefficients imply quite inconsistent effects for these different crimes. For example, simply passing the law appears to raise murder and rape rates but lower aggravated assaults and robbery. These differential effects also apply to the length of the waiting periods, with longer periods at first lowering and then raising the murder and rape rates; the reverse is true for aggravated assaults. However, these results make it very

[60] Marvell & Moody, *supra* note 43, at 259–60. With the exception of only one state, the adoption of waiting periods corresponds to the adoption of background checks.

difficult to argue that waiting periods (particularly long ones) have an overall beneficial effect on crime.

In concluding this section, not only does this initial empirical work provide strong evidence that concealed handgun laws reduce violent crime and that higher arrest rates deter all types of crime, but the work also allows us to evaluate some of the broader empirical issues concerning criminal deterrence discussed in Section II. The results confirm some of our earlier discussions on potential aggregation problems with state-level data. County-level data imply that arrest rates explain about six times the variation in violent crime rates and eight times the variation in property crime rates that arrest rates explain when we use state-level data. Breaking the data down by whether a county is a high- or a low-crime county indicates that arrest rates do not affect crime rates equally in all counties. The evidence also confirms the claims of law enforcement officials that "shall issue" laws represented more of a change in how the most populous counties permitted concealed handguns. One concern that was not borne out was over whether state-level regressions could bias the coefficients on the concealed handgun laws toward zero. In fact, while state- and county-level regressions produce widely different coefficients for property crimes, seven of the nine crime categories imply that the effect of concealed handgun laws was much larger when state-level data were used. However, one conclusion is clear: the very different results between state- and county-level data should make us very cautious in aggregating crime data and would imply that the data should remain as disaggregated as possible.

B. The Endogeneity of Arrest Rates and the Passage of Concealed Handgun Laws

The previous specifications have assumed that both the arrest rate and the passage of concealed handgun laws are exogenous. Following Ehrlich,[61] we allow for the arrest rate to be a function of the lagged crime rates; per capita and per violent and property crimes measures of police employment and payroll at the state level (these three different measures of employment are also broken down by whether police officers have the power to make arrests); the measures of income, unemployment insurance payments, and the percentages of county population by age, sex, and race used in Table 3; and county and year dummies.[62] In an attempt to control for political influences,

[61] Ehrlich, *supra* note 22, at 548–51.

[62] See also Robert E. McCormick & Robert Tollison, Crime on the Court, 92 J. Pol. Econ. 223–35 (April 1984), for a novel article testing the endogeneity of the "arrest rate" in the context of basketball fouls.

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TABLE 9

RERUNNING THE REGRESSIONS ON DIFFERENCES

	Endogenous Variables (in Terms of First Differences)								
Exogenous Variables	Δln (Violent Crime Rate)	Δln (Murder Rate)	Δln (Rape Rate)	Δln (Aggravated Assault Rate)	Δln (Robbery Rate)	Δln (Property Crime Rate)	Δln (Burglary Rate)	Δln (Larceny Rate)	Δln (Auto Theft Rate)
All variables except for the "shall issue" dummy differenced:									
Shall issue law adopted dummy	−.021589	−.025933	−.052034	−.0456251	−.0331607	.0526532	.0352582	.0522435	.128475
	(1.689)	(.841)	(2.761)	(2.693)	(1.593)	(4.982)	(3.16)	(4.049)	(5.324)
First differences in the arrest rate for the crime category corresponding to the appropriate endogenous variable	−.0004919	−.0015482	−.0008641	−.0009272	−.0005725	−.0007599	−.0024482	−.0001748	−.0001831
	(75.713)	(25.967)	(46.509)	(67.782)	(82.38)	(91.259)	(88.38)	(75.969)	(53.432)
Intercept	−.073928	−.0402018	−.014342	−.0522417	−.1203331	−.0952347	−.0770997	−.1062443	−.2604944
	(6.049)	(1.554)	(.904)	(3.68)	(6.925)	(10.8)	(8.312)	(9.872)	(13.009)
N	37,611	20,420	26,269	37,694	27,999	40,901	40,686	40,671	37,581
F-statistic	3.80	.69	2.56	4.03	4.05	4.36	6.62	3.1	10.34
Adjusted R^2	.1867	−.0379	.1389	.1972	.2283	.2047	.3018	.1386	.4338

All variables differenced:									
First differences in the shall issue law adopted dummy	−.026959 (2.57)	−.0363798 (1.826)	−.0394318 (2.887)	−.0540946 (4.414)	.0071132 (.471)	.0481937 (6.303)	.0072487 (.898)	.0623146 (6.676)	.2419118 (13.884)
First differences in the arrest rate for the crime category corresponding to the appropriate endogenous variable	−.0004919 (75.728)	−.0015481 (25.968)	−.0008642 (46.519)	−.0009275 (67.819)	−.0005724 (82.371)	−.0007598 (91.266)	−.002448 (88.362)	−.0001748 (75.978)	−.0001829 (53.495)
Intercept	−.0758797 (6.241)	−.042305 (1.642)	−.0188927 (1.196)	−.056264 (3.983)	−.1176478 (6.801)	−.0907433 (10.341)	−.0742121 (8.038)	−.1016434 (9.494)	−.248623 (12.506)
N	37,611	20,420	26,269	37,694	27,999	40,901	40,686	40,671	37,581
F-statistic	3.8	.69	2.56	4.04	4.05	4.37	6.62	3.11	10.45
Adjusted R^2	.1868	−.0378	.1389	.1975	.2282	.205	.3016	.1393	.4365

NOTE.—The variables for income, population, racial, sex, and age compositions of the population and density are all in terms of first differences. While not all the coefficient estimates are reported, all the control variables used in Table 3 are used here, including year and county dummies. Absolute t-statistics are in parentheses. All regressions use weighting where the weighting is each county's population.

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TABLE 10

CONTROLLING FOR OTHER LAWS REGULATING GUN USE

Exogenous Variables	ln (Violent Crime Rate)	ln (Murder Rate)	ln (Rape Rate)	ln (Aggravated Assault Rate)	ln (Robbery Rate)	ln (Property Crime Rate)	ln (Burglary Rate)	ln (Larceny Rate)	ln (Auto Theft Rate)
A. County-level regressions:									
Shall issue law adopted dummy	−.04171	−.08747	−.06113	−.05462	−.01817	.03633	.0133	.045018	.08206
	(3.976)	(5.173)	(4.660)	(4.452)	(1.272)	(4.717)	(1.636)	(4.723)	(6.695)
Enhanced sentencing law dummy	−.04171	−.00284	.01128	−.01528	−.028832	−.0000151	−.01992	.01219	−.0182
	(3.976)	(.230)	(1.165)	(1.680)	(2.694)	(.003)	(3.340)	(1.733)	(2.021)
Waiting law dummy	.02297	.23386	.2534	−.0937	−.09307	.02023	.02012	−.003398	−.08302
	(.601)	(3.663)	(5.213)	(2.071)	(1.704)	(.718)	(.679)	(.098)	(1.853)
Waiting period in days	−.000829	−.0943	−.1363	.06447	−.1121	−.01477	−.04533	−.011885	−.0100
	(.075)	(5.112)	(9.726)	(4.966)	(7.349)	(1.812)	(5.279)	(1.175)	(.772)
Waiting period in days squared	−.0008046	.00546	.00802	−.00498	.00731	.0001884	.002268	−.001706	.0009851
	(1.182)	(4.864)	(9.363)	(6.248)	(7.836)	(.376)	(4.297)	(2.751)	(1.237)
N	43,451	26,458	33,865	43,445	34,949	45,940	45,769	45,743	43,589
F-statistic	115.06	37.96	45.24	70.51	132.58	87.30	84.99	59.34	116.32
Adjusted R^2	.8926	.8062	.8018	.8348	.9202	.8564	.8499	.8018	.8932

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B. State-level regressions:									
Shall issue law adopted dummy	−.1005	−.0810	−.05746	−.10189	−.1332	−.0342	−.0761	−.0219	−.0079
	(3.030)	(2.068)	(1.799)	(3.013)	(2.770)	(1.499)	(2.785)	(.976)	(.178)
Enhanced sentencing law dummy	.0347	.0303	.02725	−.0283	.0073	.0287	.0054	.0369	.0175
	(1.491)	(1.103)	(1.209)	(1.192)	(.217)	(1.798)	(.282)	(2.354)	(.564)
Waiting law dummy	.1010	.0684	.2173	.02613	.1524	.0325	.0647	.0233	−.0307
	(.809)	(.464)	(1.805)	(.205)	(.842)	(.378)	(.628)	(.276)	(.184)
Waiting period in days	−.02988	−.03066	−.1049	−.0065	−.1000	−.0095	−.0220	−.0053	−.0238
	(.854)	(.744)	(3.109)	(.183)	(1.978)	(.397)	(.765)	(.223)	(.509)
Waiting period in days squared	.00117	−.00132	.0059	−.00041	.0059	−.000207	.0005	−.00059	−.00248
	(.576)	(.553)	(3.004)	(.200)	(2.017)	(.149)	(.302)	(.435)	(.921)
N	804	809	804	811	811	811	811	811	811
F-statistic	134.75	100.20	76.15	127.93	123.66	78.29	82.33	75.57	168.47
Adjusted R^2	.9491	.9322	.9129	.9461	.9443	.9144	.9183	.9116	.9586

NOTE.—The control variables are the same as those used in Table 3 including year and county dummies. Absolute *t*-statistics are in parentheses. All regressions use weighting where the weighting is each county's population.

we also included the percentage of a state's population that are members of the National Rifle Association and the percentage of the vote received by the Republican presidential candidate at the state level. Because presidential candidates and issues vary between elections, the percentage voting Republican is undoubtedly not directly comparable across years. To account for these differences across elections, we interacted the percentage voting Republican with dummy variables for the years immediately next to the relevant elections. Thus, the percentage of the vote obtained in 1980 is multiplied by a year dummy for the years 1979–82, the percentage of the vote obtained in 1984 is multiplied by a year dummy for the years 1983–86, and so on, through the 1992 election. A second set of regressions explaining the arrest rate also includes the change in the natural log of the crime rates to proxy for the difficulty police forces face in adjusting to changing circumstances.[63] However, the time period studied in all these regressions is more limited than in our previous tables because state-level data on police employment and payroll are only available from the U.S. Department of Justice's Expenditure and Employment data for the Criminal Justice System from 1982 to 1992.

There is also the question of why some states adopted concealed handgun laws while others did not. As noted earlier, to the extent that states adopted the law because crime was either rising or was expected to increase, OLS estimates underpredict the drop in crime. Similarly, if these rules were adopted when crimes rates were falling, the bias is in the opposite direction. Thus, in order to predict whether a county would be in a state with concealed handgun laws we used both the natural logs of the violent and property crime rates and the first differences of those crime rates. To control for general political differences that might affect the chances of these laws being adopted, we also included National Rifle Association membership as a percentage of a state's population; the Republican presidential candidate's percentage of the statewide vote; the percentage of a state's population that is black and the percentage white; the total population in the state; regional dummy variables for whether the state is in the South, Northeast, or Midwest; and year dummy variables.

While the 2SLS estimates shown in the top half of Table 11 again use the same set of control variables employed in the preceding tables, the results differ from all our previous estimates in one important respect: concealed handgun laws are associated with large significant drops in the levels of all nine crime categories. For the estimates most similar to Ehrlich's

[63] We would like to thank Phil Cook for suggesting this addition to us. In a sense, this is similar to Ehrlich's specification, *supra* note 22, at 557, except that the current crime rate is broken down into its lagged value and the change between the current and previous periods.

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study, five of the estimates imply that a 1 standard deviation change in the predicted value of the shall issue law dummy variable explains at least 10 percent of a standard deviation change in the corresponding crime rates. In fact, concealed handgun laws explain a greater percentage of the change in murder rates than do arrest rates. With the exception of robbery, the set of estimates using the change in crime rates to explain arrest rates indicates a usually more statistically significant but economically smaller effect from concealed handgun laws. For example, concealed handgun laws now explain 3.9 percent of the variation in murder rates compared to 7.5 percent in the preceding results. While these results imply that even crimes with relatively little contact between victims and criminals experienced declines, the coefficients for violent crimes are still relatively more negative than the coefficients for property crimes.

For the first-stage regressions explaining which states adopt concealed handgun laws (shown in the bottom half of Table 11), both the least square and logit estimates imply that the states adopting these laws are relatively Republican with large National Rifle Association memberships and low but rising violent and property crime rates. The other set of regressions used to explain the arrest rate shows that arrest rates are lower in high-income, sparsely populated, Republican areas where crime rates are increasing.

We also reestimated the state-level data using similar 2SLS specifications. The coefficients on both the arrest rates and concealed handgun law variables remained consistently negative and statistically significant, with the state-level data again implying a much stronger effect from concealed handguns and a much weaker effect from higher arrest rates. Finally, in order to use the longer data series available for the nonpolice employment and payroll variables, we reran the regressions without those variables and produced similar results.

Ehrlich also raises the concern that the types of 2SLS estimates shown in Table 11, part A, might still be affected by spurious correlation if the measurement errors for the crime rate are serially correlated over time. (The potential difficulties for part B are much more serious.) To account for this, we reestimated the first stage regressions predicting the arrest rate without the lagged crime rate. Doing this makes the estimated results for the Shall Issue Law dummy even more negative and statistically significant than those already shown.

Finally, using the predicted values for the arrest rates allows us to investigate the significance of another weakness with the data. The arrest rate data experience not only some missing observations but also instances where it is undefined when the crime rate in a county equals zero. This last issue is really only a concern for murders and rapes in low population counties. In

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TABLE 11

Regression Estimates of the Causes and Effects of the Adoption of Concealed Handgun Laws

A. Allowing the Change in the "Shall Issue" Law and the Arrest Rate to Be Endogenous Using Two-Stage Least Squares (2SLS)*

Exogenous Variables	Endogenous Variables (in Crimes per 100,000 Population)								
	ln (Violent Crime Rate)	ln (Murder Rate)	ln (Rape Rate)	ln (Aggravated Assault Rate)	ln (Robbery Rate)	ln (Property Crime Rate)	ln (Auto Theft Rate)	ln (Burglary Rate)	ln (Larceny Rate)
1. Using the predicted values of arrest rates similar to Ehrlich's 1973 study:									
Shall issue law adopted dummy	−1.262	−1.1063	−1.059	−1.3192	−.8744	−1.1182	−.7668	−.7603	−1.122
	(21.731)	(5.7598)	(−4.4884)	(18.5277)	(7.4979)	(15.3716)	(11.435)	(19.328)	(25.479)
	10.5%	7.5%	6.4%	10.1%	4.9%	7.67%	11.4%	10.6%	13.5%
Arrest rate for the crime category corresponding to the appropriated endogenous variable	−.002324	−.00094	−.0359	−.002176	−.00241	−.01599	−.002759	−.01783	−.0124
	(9.6892)	(1.8436)	(9.667)	(7.1883)	(4.481)	(33.26)	(2.989)	(14.36)	(31.814)
	60.7%	5.2%	60.1%	44.6%	36.9%	80.1%	21.3%	79.6%	80.6%
N	31,129	31,129	31,129	31,129	31,129	31,129	31,129	31,129	31,129
F-statistic	61.97	19.07	22.3	39.81	63.71	60.78	84.21	46.48	38.37
Adjusted R^2	.8592	.644	.6807	.7953	.8626	.8568	.8893	.8199	.7891
2. Including the change in crime rates when estimating the predicted values of the arrest rates:									
Shall issue law adopted dummy	−.26104	−.5732	−.1992	−.29881	−.0054	−.20994	−.2774	−.1153	−.2623
	(20.12)	(18.21)	(9.6317)	(15.4465)	(.2935)	(29.4242)	(32.5051)	(13.397)	(32.4253)
	2.2%	3.9%	1.2%	2.3%	0.3%	3.3%	2.1%	1.6%	3.2%

Arrest rate for the crime category corresponding to the appropriate endogenous variable	−.007827	−.024	−.02626	−.01028	−.00716	−.00933	−.01233	−.03839	−.0101
	(746.74)	(687.7)	(1,047)	(582)	(901.8)	(820.7)	(1,242.7)	(796.8)	(956.14)
	104%	95%	117%	88%	109%	95%	95.1%	71%	101%
N	31,129	31,129	31,129	31,129	31,129	31,129	31,129	31,129	31,129
F-statistic	1,723	1,260.9	4,909.6	797.5	3,614.86	1,671.49	6,424	1,389	1,625.8
Adjusted R^2	.9942	.9921	.9980	.9876	.9972	.9941	.9984	.9929	.9939

B. First-Stage Estimates of Shall Issue Law†

	Exogenous Variables										
Endogenous Variable	ln (Violent Crime Rate)	Δln (Violent Crime Rate)	ln (Property Crime Rate)	Δln (Property Crime Rate)	NRA Membership as % of State Population	% Rep. Pres. in State Vote 80•Year Dummy 79–82	% Rep. Pres. in State Vote 84•Year Dummy 83–86	% Rep. Pres. in State Vote 88•Year Dummy 87–90	% Rep. Pres. in State Vote 92•Year Dummy 91–92	% Population Black for State	% Population White for State
Least squares estimate:											
Shall issue law	−.01817	.00825	−.02889	.0094	.000107	.0061	.0034	.01702	.0299	.00518	.0031
	(9.710)	(5.031)	(8.748)	(2.577)	(19.383)	(5.485)	(4.986)	(22.844)	(27.317)	(13.06)	(8.470)
N						31,137					
F statistic						209.85					
Adjusted R^2						.1436					
Logit:											
Shall issue law	−.0797	.038249	−.2095	.08119	.0004344	.0567	.01456	.09976	.12249	.0409	.0364
	(6.003)	(3.294)	(8.657)	(3.121)	(10.329)	(6.227)	(2.437)	(16.203)	(16.273)	(10.090)	(9.131)
N						31,137					
χ^2						5,007.44					
Pseudo-R^2						.1687					

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TABLE 11 (*Continued*)

C. First-Stage Estimates of the Probability of Arrest: Violent and Property Crime Rates‡

Endogenous Variable	Exogenous Variables: ln (Violent Crime Rate Lagged)	ln (Property Crime Rate Lagged)	No. of Police in State Employed with Power of Arrest/State Population	No. of Police in State Employed without Power of Arrest/State Population	NRA Membership as % of State Population	Population Density per Square Mile	% Rep. Pres. in State Vote 80•Year Dummy 79–82	% Rep. Pres. in State Vote 84•Year Dummy 83–86	% Rep. Pres. in State Vote 88•Year Dummy 87–90	% Rep. Pres. in State Vote 92•Year Dummy 91–92
1. The predicted values of arrest rates that most closely correspond to Ehrlich's 1973 2SLS estimates:										
Arrest rate for violent crimes	−2.224	. . .	−14,093.61	95.085	.01463	.0739	−6.936	−4.293	−3.3467	−3.4316
	(1.441)		(3.065)	(2.206)	(1.940)	(6.418)	(9.975)	(8.270)	(5.865)	(4.967)
N					28,954					
F-statistic						1.83				
Adjusted R^2						.0814				
Arrest rate for property crimes	. . .	.90203	−2,805.2	−1.3057	.01045	.00415	−1.5931	−.9155	−1.1778	−1.2009
		(.738)	(1.173)	(.059)	(1.305)	(.697)	(4.434)	(3.420)	(4.004)	(3.416)
N					30,814					
F-statistic						1.08				
Adjusted R^2						.0084				

Exogenous Variables: ln (Violent Crime Rate Lagged)	Δln (Violent Crime Rate)	ln (Property Crime Rate Lagged)	Δln (Property Crime Rate)	No. of Police in State Employed with Power of Arrest/State Population	No. of Police in State Employed without Power of Arrest/State Population	NRA Membership as % of State Population	Density per Square Mile	County Population

2. Including the change in crime rates in addition to those already noted when estimatating the predicted values of arrest rates (the coefficients on the percentage of the state voting Republican in presidential elections is similar to those reported above):									
Arrest rate for violent crimes	−128.4	−123.64	...	...	12,194	96.3244	.0009	.0646	−.0000726
	(39.86)	(44.17)			(2.750)	(2.317)	(.060)	(5.284)	(4.877)
N					28,954				
F-statistic					2.59				
Adjusted R^2					.1458				
Arrest rate for property crimes	...	...	109.69	−106.92	−1,394	−1.9891	−.0072	.0083	−.0000111
			(49.342)	(58.21)	(.618)	(.095)	(.949)	(1.473)	(1.522)
N					30,814				
F-statistic					2.30				
Adjusted R^2					.1165				

SOURCE.—Isaac Ehrlich, Participation in Illegitimate Activities: A Theoretical and Empirical Investigation, 81 J. Pol. Econ. 521–65 (1973).

* While not all coefficient estimates are reported, all the control variables are the same as those used in Table 3, including year and county dummies. Absolute *t*-statistics are in parentheses, and the percentage reported below that for some of the numbers is the percent of a standard deviation change in the endogenous variable that can be explained by a 1 standard deviation change in the exogenous variable.

† Absolute *t*-statistics are in parentheses. The sample is limited because the data on police employment used in producing the predicted arrest rates were available only for 1982–92. While the estimates from the first specification were used in the above regressions, the logit estimates are provided for comparison. Not all the variables that were controlled for are shown. These additional variables included year and regional dummies (South, Northeast, and Midwest) and the state's population. NRA = National Rifle Association. % Rep. Pres. = percentage of the vote received by the Republican presidential candidate.

‡ Absolute *t*-statistics are in parentheses. The sample is limited because the data on police employment were available only for 1982–92. Not all the variables that were controlled for are shown. These additional variables included the number of police with arrest powers divided by the number of violent crimes; the number of police with arrest powers divided by the number of property crimes; the number of police without arrest powers divided by the number of violent crimes; the number of police without arrest powers divided by the number of property crimes; these preceding variables using payrolls; the breakdown of the county's population by age, sex, and race used in Table 3; year and county dummies; the measures of income reported in Table 3; and the state's population. The estimates also using the change in crime rates are available from the authors. NRA = National Rifle Association. % Rep. Pres. = percentage of the vote received by the Republican presidential candidate.

these cases both the numerator and denominator in the arrest rate are equal to zero, and it is not clear whether we should count this as an arrest rate equal to 100 or 0 percent, neither of which seems very plausible. The previously reported evidence where regressions were run only on the larger counties sheds some light on this question since these counties do not exhibit this problem. In addition, if the earlier reported evidence that the movement to nondiscretionary permits largely confirmed the preexisting practice in the lower population counties, one would expect relatively little change in these counties with the missing observations.

However, the analysis presented in this section also allowed us to try another approach to deal with this issue. We created predicted arrest rates for these observations using the regressions that explain the arrest rate in Table 11, and then we reestimated the second-stage relationships shown there for murder and rape with the new larger samples. While the coefficient on murder declines, implying a 5 percent drop when "shall issue" laws are adopted, the coefficient for rape increases, now implying over a 10 percent drop. Both coefficients are statistically significant. The effect of arrest rates also remains negative and statistically significant.

C. *Concealed Handgun Laws, the Method of Murder, and the Choice of Murder Victims*

Do concealed handgun laws cause a substitution in the methods of committing murders? For example, it is possible that the number of gun murders rises after these laws are passed even though the total number of murders falls. While concealed handgun laws raise the cost of committing murders, murderers may also find it relatively more dangerous to kill people using nongun methods once people start carrying concealed handguns and substitute into guns to put themselves on a more even basis with their potential prey. Using data on the method of murder from the Mortality Detail Records provided by the United States Department of Health and Human Services, we reran the murder rate regression from Table 3 on counties over 100,000 during the period from 1982 to 1991. We then separated out murders caused by guns from all other murders. Table 12 shows that carrying concealed handguns appears to have been associated with approximately equal drops in both categories of murders. Carrying concealed handguns appears to make all types of murders relatively less attractive.

There is also the question of what effect concealed handgun laws have on determining which types of people are more likely to be murdered? Using the Uniform Crime Reports Supplementary Homicide Reports we were able to obtain annual state-level data from 1977 to 1992 on the percentage of victims by sex, age, and race as well as information on whether the vic-

TABLE 12

CHANGES IN MURDER METHODS FOR COUNTIES OVER 100,000, 1982–91

EXOGENOUS VARIABLES	ENDOGENOUS VARIABLES (in Murders per 100,000 Population)		
	ln(Total Murders)	ln(Murder with Guns)	ln(Murders by Nongun Methods)
Shall issue law adopted dummy	−.09074	−.09045	−.08854
	(3.183)	(1.707)	(1.689)
Arrest rate for murder	−.00151	−.00102	−.00138
	(26.15)	(6.806)	(7.931)
Intercept	.63988	−8.7993	−7.51556
	(.436)	(2.136)	(2.444)
N	12,740	12,759	8,712
F-statistic	21.40	6.60	4.70
Adjusted R^2	.8127	.5432	.5065

NOTE.—While not all the coefficient estimates are reported, all the control variables are the same as those used in Table 3, including year and county dummies. Absolute *t*-statistics are in parentheses. All regressions use weighting where the weighting is each county's population. The first column uses the Uniform Crime Reports numbers for counties over 100,000, while the second column uses the numbers on total gun deaths available from the Mortality Detail Records, and the third column takes the difference between the Uniform Crime Report's numbers for total murders and Mortality Detail Records of gun deaths.

tim and the offender knew each other (whether they were members of the same family, knew each other but were not members of the same family, strangers, or the relationship is unknown).[64] Table 13 implies no statistically significant relationship between the concealed handgun dummy and the victim's sex, race, or relationships with offenders. However, while they are not quite statistically significant at the .10 level for a two-tailed *t*-test, two of the point estimates appear economically important and imply that in states with concealed handgun laws the percent of victims who know their nonfamily offenders rose by 2.6 percentage points and that the percentage of victims where it was not possible to determine whether a relationship existed declined by 2.9 percentage points. This raises the question of whether concealed handguns cause criminals to substitute into crimes against those whom they know and presumably are also more likely to know whether

[64] While county-level data were provided in the Supplementary Homicide Report, matching these county observations with those used in the Uniform Crime Report (UCR) proved unusually difficult. A unique county identifier was used in the Supplementary Homicide Report, and it was not consistent across years. In addition, some caution is suggested in using both the Mortality Detail Records and the Supplementary Homicide Report since the murder rates reported in both sources have relatively low correlations of less than .7 with the murder rates reported in Uniform Crime Reports. This is especially surprising for the Supplementary Report, which is derived from the UCR.

TABLE 13

CHANGES IN COMPOSITION OF MURDER VICTIMS USING ANNUAL STATE-LEVEL DATA FROM THE UNIFORM CRIME REPORTS SUPPLEMENTARY HOMICIDE REPORTS, 1977–92

	ENDOGENOUS VARIABLES (in Percentage Points)									
	By Victim's Sex			By Victim's Race			By Victim's Relationship with Offender			
EXOGENOUS VARIABLES	Male	Female	Unidentified	White	Black	Hispanic	Offender Is Known to Victim but Is Not in Family	Offender Is in the Family	Offender Is a Stranger	Relationship Is Unknown
Shall issue law adopted dummy	.3910	−.4381	.0476	.0137	.7031	−.8659	2.5824	−.2503	.5438	−2.8755
	(.388)	(.439)	(.399)	(.017)	(.575)	(.609)	(1.567)	(.210)	(.459)	(1.464)
Arrest rate for murder	.00068	−.001385	.000703	−.0202	.0132	.00327	.0174	−.0145	.0079	−.0108
	(.141)	(.289)	(1.227)	(2.316)	(2.244)	(.478)	(2.198)	(2.541)	(1.394)	(1.141)
Intercept	102.20	−3.2763	1.0558	152.19	−30.948	−7.7863	−73.4677	165.1719	89.843	−81.55
	(1.718)	(.056)	(.150)	(1.418)	(.428)	(.093)	(.755)	(2.345)	(165.17)	(.703)
N	804	804	804	804	804	804	804	804	804	804
F-statistic	14.27	14.51	1.06	45.47	125.09	35.94	14.96	12.87	7.84	26.06
Adjusted R^2	.6409	.6450	.0077	.8568	.9435	.8245	.6525	.6150	.4790	.7712

NOTE.—While not all the coefficient estimates are reported, all the control variables are the same as those used in Table 4, including year and state dummies. Absolute *t*-statistics are in parentheses. All regressions use weighting where the weighting is each state's population.

they carry concealed handguns. While the effect of age (not shown in Table 13) is negative (consistent with the notion that concealed handguns deter crime against adults more than young people because only adults can legally carry concealed handguns), the effect is statistically insignificant. Possibly some of the benefits from adults carrying concealed handguns are conferred to younger people who may be protected by these adults.

The arrest rate for murder variable produces more interesting results. The percentage of white victims and the percentage of victims killed by family members both declined when states passed concealed handgun laws, while the percentage of black victims and the percentage of victims killed by non-family members that they know both increased. The results imply that higher arrest rates have a much greater deterrence effect on murders involving whites and family members. One explanation is that whites with higher incomes face a greater increase in expected penalties for any given increase in the probability of arrest.

D. Arizona, Pennsylvania, and Oregon County Data

One problem with the preceding results was the use of county population as a proxy for how restrictive counties were in allowing concealed handgun permits before the passage of "shall issue" laws. Since we are still going to control county-specific levels of crime with county dummies, a better measure would have been to use the actual change in gun permits before and after the adoption of a concealed handgun law. Fortunately, we were able to get that information for three states: Arizona, Oregon, and Pennsylvania (see Table 14). Arizona and Oregon also provided additional information on the conviction rate and the mean prison sentence length. However, for Oregon, because the sentence length variable is not directly comparable over time, it is interacted with all the year dummies so that we can still retain any cross-sectional information in the data. One difficulty with the Arizona prison sentence and conviction data is that they are available only from 1990 to 1995 and that since the shall issue handgun law did not take effect until July 1994, it is not possible for us to control for all the other variables that we control for in the other regressions. Unlike Oregon and Pennsylvania, Arizona did not allow private citizens to carry concealed handguns prior to July 1994, so the value of concealed handgun permits equals zero for this earlier period. Unfortunately, however, because Arizona's change in the law is so recent, we are unable to control for all the variables that we can control for in the other regressions.

The results in Table 15 for Pennsylvania and Table 16 for Oregon provide a couple of consistent patterns. The most economically and statistically important relationship involves the arrest rate: higher arrest rates consis-

TABLE 14

OREGON, PENNSYLVANIA, AND ARIZONA SAMPLE MEANS AND STANDARD DEVIATIONS

VARIABLE	Oregon			Pennsylvania			Arizona		
	N	Mean	S.D.	*N*	Mean	S.D.	*N*	Mean	S.D.
Gun ownership information:									
Shall issue dummy	576	.1875	.39065	1,072	.24627	.4310	90	.33333	.47404
Change in the (number of right-to-carry pistol permits/population 21 and over) between 1988 and each year since the law was implemented, otherwise zero	576	.02567	.13706	1,072	.46508	1.2365	90	2.1393	15.02066
Arrest rates are the ratio of arrests to offenses for a particular crime category:									
Violent crimes	576	66.17437	49.2031	1,072	55.0738	21.1293			
Murder	368	100.8344	97.2253	801	92.2899	64.0169			
Rape	507	37.80920	37.8298	1,031	52.5967	32.8287			
Aggravated assault	558	76.37541	62.5568	1,070	57.4422	25.6491			
Robbery	490	50.98248	53.2559	999	53.5970	49.3320			
Property crimes	576	21.95107	7.90548	1,072	21.0539	7.12458			
Auto theft	566	57.17941	99.6343	1,069	36.6929	63.9266			
Burglary	576	18.99394	11.0296	1,072	18.8899	8.50639			
Larceny	576	21.71564	8.21388	1,072	22.0378	7.47778			
Conviction rates are the ratio of convictions to arrests for a particular crime category (for Arizona it is the ratio of convictions to offenses):									
Violent crimes	542	25.93325	40.5691				90	16.0757	33.85482
Murder	358	94.42969	107.128				90	111.8722	107.9311
Rape	444	161.7508	215.635				90	47.4365	81.42314
Aggravated assault	536	2.505037	5.61042				90	9.204778	13.66225
Robbery	420	38.51352	49.9308				90	17.09185	39.17454
Property crime	555	6.530883	13.8484				90	1.370787	1.432515
Auto theft	539	10.1805	14.3673				90	1.175114	3.671085
Burglary	544	15.56064	17.7937				90	2.534157	3.4627
Larceny	552	2.577337	11.3266				90	1.070667	1.308081

Prison sentence in months (Oregon) or years (Arizona):									
Murder	327	301.6697	164.55				90	16.0557	7.31179
Rape	443	103.2212	50.4662				90	8.761905	5.974623
Aggravated assault	241	154.4647	79.7893				90	4.28876	1.874496
Robbery	364	106.8709	55.4847				90	6.852239	3.108169
Auto theft	405	43.40494	20.7846				90	1.415	.3308054
Burglary	489	65.17791	32.2003				90	3.937647	1.03187
Larceny	424	46.42925	19.0075				90	66.64444	145.6599
Crime rates defined per 100,000 people:									
Violent crimes	576	4079.07	1621.53	1,072	2281.56	967.430	90	429.2972	254.1692
Murder	576	4.52861	6.67245	1,072	3.01319	4.12252	90	5.7787778	4.413259
Rape	576	31.4474	25.4623	1,072	15.9726	11.6156	90	23.5	18.90888
Aggravated assault	576	196.192	152.965	1,072	107.332	78.5966	90	339.2977	200.0264
Robbery	576	50.5625	89.5707	1,072	45.2030	86.7830	90	60.72056	71.75822
Property crimes	576	282.666	230.421	1,072	171.485	156.683	90	4,147.692	2,282.633
Auto theft	576	228.403	157.204	1,072	160.831	162.572	90	351.3749	339.0281
Burglary	576	1,089.5	495.926	1,072	753.668	535.022	90	950.7187	563.3711
Larceny	576	2,761.17	1,098.06	1,072	1,367.06	569.563	90	2,845.597	1,569.837
Real per capita income data (in real 1983 dollars):									
Personal income	576	11,389.39	1,630.47	1,072	11,525	2,099.44			
Unemployment insurance	576	108.8037	45.9864	1,072	130.560	64.0694			
Income maintenance	576	131.4323	40.3703	1,072	149.652	69.5516			
Retirement payments per person over 65	576	12,335.17	1,278.18	1,072	13,398.9	2,253.29			
Population characteristics:									
County population	576	74,954.98	112,573.3	1,072	177,039	274,289.9			
County population per square mile	576	77.46861	219.7100	1,072	453.549	1,516.16			
Race and age data (% of population):									
Black male under 10	576	.051847	.092695	1,072	.2089	.439286			
Black female under 10	576	.049275	.089665	1,072	.2018	.434456			
White male under 10	576	7.367641	.683587	1,072	6.7258	.808574			

TABLE 14 (*Continued*)

Variable	Oregon			Pennsylvania			Arizona		
	N	Mean	S.D.	*N*	Mean	S.D.	*N*	Mean	S.D.
White female under 10	576	7.012212	.649409	1,072	6.3567	.761709			
Other male under 10	576	.322532	.437321	1,072	.0525	.040573			
Other female under 10	576	.307242	.402487	1,072	.0536	.039637			
Black male 10–19	576	.052283	.084658	1,072	.2515	.468536			
Black female 10–19	576	.047129	.088479	1,072	.2276	.473586			
White male 10–19	576	7.603376	.952584	1,072	7.7274	1.155154			
White female 10–19	576	7.140808	.895257	1,072	7.37287	1.158130			
Other male 10–19	576	.308009	.348147	1,072	.05396	.040844			
Other female 10–19	576	.295728	.286703	1,072	.05141	.038375			
Black male 20–29	576	.064034	.087570	1,072	.24866	.439191			
Black female 20–29	576	.042044	.082821	1,072	.22014	.497373			
White male 20–29	576	6.918945	1.613700	1,072	7.53233	1.416936			
White female 20–29	576	6.767993	1.485155	1,072	7.56037	1.094322			
Other male 20–29	576	.280987	.322992	1,072	.05412	.078002			
Other female 20–29	576	.273254	.287497	1,072	.05431	.060281			
Black male 30–39	576	.048262	.073100	1,072	.19163	.354741			
Black female 30–39	576	.032534	.071081	1,072	.17443	.419096			
White male 30–39	576	7.363739	.883651	1,072	6.81373	.850949			
White female 30–39	576	7.333140	.845647	1,072	6.87622	.837649			
Other male 30–39	576	.227610	.215892	1,072	.04737	.050606			
Other female 30–39	576	.248852	.221020	1,072	.05518	.045324			
Black male 40–49	576	.030101	.044355	1,072	.12300	.244123			
Black female 40–49	576	.022872	.043869	1,072	.12520	.311716			
White male 40–49	576	5.506716	.817220	1,072	5.27656	.727481			
White female 40–49	576	5.456938	.760387	1,072	5.43223	.650546			
Other male 40–49	576	.148190	.127731	1,072	.03571	.030029			
Other female 40–49	576	.157778	.121413	1,072	.03901	.030711			
Black male 50–64	576	.028558	.045301	1,072	.13316	.305455			
Black female 50–64	576	.024530	.050093	1,072	.15634	.404990			
White male 50–64	576	7.123300	1.164997	1,072	7.27097	.814601			
White female 50–64	576	7.396392	1.084129	1,072	8.08559	1.031230			
Other male 50–64	576	.135419	.115337	1,072	.02496	.021059			
Other female 50–64	576	.158164	.126546	1,072	.03093	.021638			

TABLE 15

USING PENNSYLVANIA DATA ON THE NUMBER OF PERMITS ISSUED TO MEASURE THE DIFFERENTIAL IMPACT OF PENNSYLVANIA'S 1989 "SHALL ISSUE" LAW ON DIFFERENT COUNTIES: DATA FOR COUNTIES WITH POPULATIONS OVER 200,000

	ENDOGENOUS VARIABLES (in Crimes per 100,000 Population)								
EXOGENOUS VARIABLES	ln (Violent Crime Rate)	ln (Murder Rate)	ln (Rape Rate	ln (Aggravated Assault Rate)	ln (Robbery Rate)	ln (Property Crime Rate)	ln (Auto Theft Rate)	ln (Burglary Rate)	ln (Larceny Rate)
Change in the (number right-to-carry pistol permits/population over 21) between 1988 and each year since the law was implemented	−.0527	−.267	−.0567	−.0481	.0124	−.00116	.0146	−.0140	.0073
	(1.653)	(2.759)	(1.725)	(1.656)	(.265)	(.060)	(.337)	(.562)	(.37)
	10%	21%	6%	9%	2%	1%	2%	4%	2%
Arrest rate for the crime category corresponding to the appropriate endogenous variable	−.00785	−.00365	−.000804	−.00763	−.000836	−.0041	−.00065	−.0112	.00126
	(7.371)	(6.364)	(.668)	(6.413)	(7.031)	(2.057)	(1.185)	(5.138)	(.641)
	25%	15%	2%	28%	24%	8%	4%	25%	2%
Population per square mile	−.000386	.00262	.000987	−.00039	.0005395	.00037	−.000171	.000518	.00077
	(.832)	(1.991)	(1.087)	(.600)	(.835)	(1.283)	(.275)	(1.442)	(2.601)
Real per capita personal income	.0000376	−.000016	.000066	.0000197	.000047	−.0000485	−.000067	−.000034	−.00004
	(1.074)	(.156)	(1.071)	(.452)	(1.055)	(2.611)	(1.599)	(1.396)	(2.025)
Intercept	−15.352	118.93	−67.015	34.752	−52.529	−10.31	27.816	−29.40	6.2484
	(.348)	(1.069)	(.889)	(.671)	(.993)	(.467)	(.557)	(1.016)	(.269)
N	264	264	264	264	264	264	264	264	264
F-statistic	219.4	38.70	42.49	75.00	227.51	111.04	225.8	87.43	83.19
Adjusted R^2	.9841	.9150	.9221	.9549	.9848	.9691	.9846	.9609	.9591

NOTE.—Absolute *t*-statistics are in parentheses, and the percentage reported below is the percent of a standard deviation change in the endogenous variable that can be explained by a 1 standard deviation change in the exogenous variable. While not all the coefficient estimates are reported, all the control variables are the same as those used in Table 3, including year and county dummies. All regressions use weighted least squares where the weighting is each county's population. The use of SHALL•POPULATION variable that was used in the earlier regressions instead of the change in right-to-carry permits variable was tried here and produced very similar results. We also tried controlling for either the robbery or burglary rates, but we obtained very similar results.

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TABLE 16

OREGON DATA ON THE NUMBER OF PERMITS ISSUED, THE CONVICTION RATE, AND PRISON SENTENCE LENGTHS

	ENDOGENOUS VARIABLES (in Crimes per 100,000 Population)						
EXOGENOUS VARIABLES	ln(Murder Rate)	ln(Rape Rate)	ln(Aggravated Assault Rate)	ln(Robbery Rate)	ln(Auto Theft Rate)	ln(Burglary Rate)	ln(Larceny Rate)
Change in the (number right-to-carry pistol permits/population over 21) between 1988 and each year since the law was implemented	−.3747	−.0674	−.0475	−.04664	.1172	.02655	−.0936
	(1.598)	(.486)	(.272)	(.385)	(1.533)	(.536)	(2.328)
	3%	1%	.5%	.28%	1%	1%	3%
Arrest rate for the crime category corresponding to the appropriate endogenous variable	−.00338	−.00976	−.00442	−.00363	−.00036	−.00679	−.00936
	(6.785)	(9.284)	(7.279)	(4.806)	(1.481)	(4.458)	(6.764)
	17%	19%	19%	9%	3%	16%	16%
Conviction rate conditional on arrest for the crime category corresponding to the appropriate endogenous variable	−.00208	−.00093	−.01511	−.00190	−.00373	−.00274	−.00859
	(6.026)	(7.668)	(2.150)	(4.465)	(3.031)	(4.297)	(3.140)
	11%	10%	6%	4%	4%	10%	20%
Population per square mile	−.00333	.0063	.01177	.0079	.00062	.00425	−.00030
	(.415)	(.059)	(2.430)	(2.551)	(.367)	(3.937)	(.319)
Real per capita personal income	−.000138	−.000038	−.000162	−.000108	.000037	.000021	8.29E−6
	(.769)	(.463)	(1.301)	(1.542)	(.965)	(.816)	(.407)
Intercept	6.1725	8.2432	84.464	−16.303	2.6213	−11.2489	20.047
	(.342)	(.496)	(3.131)	(1.114)	(.326)	(2.169)	(4.748)
N	250	393	239	337	403	487	422
F-statistic	5.74	16.61	38.79	97.94	156.02	89.90	86.81
Adjusted R^2	.6620	.8113	.9439	.9677	.9766	.9522	.9569

NOTE.—Absolute t-statistics are in parentheses, and the percentage reported below that is the percent of a standard deviation change in the endogenous variable that can be explained by a 1 standard deviation change in the exogenous variable. We also controlled for prison sentence length, but the different reporting practices used by Oregon over this period makes its use somewhat problematic. To deal with this problem the prison sentence length variable was interacted with year dummy variables. Thus while the variable is not consistent over time it is still valuable in distnguishing penalties across counties at a particular point in time. While not all the coefficient estimates are reported, all the remaining control variables are the same as those used in Table 3, including year and county dummies. The categories for violent and property crimes are eliminated because the mean prison sentence data supplied by Oregon did not allow us to use these two categories. All regressions use weighted least squares where the weighting is each county's population.

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tently imply lower crime rates, and in 12 of the 16 regressions the effect is statistically significant. Five cases for Pennsylvania (violent crime, murder, aggravated assault, robbery, and burglary) show that arrest rates explain more than 15 percent of a standard deviation change in crime rates. Automobile theft is the only crime for which the arrest rate is insignificant in both tables.

For Pennsylvania, murder and rape are the only crimes where a 1 standard deviation change in per capita concealed handgun permits explains a greater percentage of a standard deviation in crime rates than it does for the arrest rate. However, increased concealed handgun usage explains more than 10 percent of a standard deviation change in murder, rape, aggravated assault, and burglary rates. For six of the nine regressions, the concealed handgun variable for Pennsylvania exhibits the same coefficient signs that were shown for the national data. Violent crimes, with the exception of robbery, show that higher concealed handgun use lowers crime rates, while property crimes exhibit very little relationship. Concealed handgun use only explains about one-tenth the variation for property crimes that it explains for violent ones.[65] The regressions for Oregon weakly imply a similar relationship between concealed handgun use and crime, but the effect is only statistically significant in one case: larceny, which is also the only crime category where the negative concealed handgun coefficient differs from our previous findings.

The Oregon data also show that higher conviction rates consistently result in significantly lower crime rates. A 1 standard deviation change in conviction rates explains 4–20 percent of a 1 standard deviation change in the corresponding crime rates. However, increases in conviction rates appear to produce a smaller deterrent effect than increases in arrest rates for five of the seven crime categories.[66] The biggest differences between the deterrent effects of arrest and conviction rates produce an interesting pat-

[65] Running the regressions for all Pennsylvania counties (and not just those over 200,000 population) produced similar coefficients and signs for the change in concealed handgun permits coefficient, though the coefficients were no longer statistically significant for violent crimes, rape, and aggravated assault. Alan Krug, who provided us with the Pennsylvania handgun permit data, told us that one reason for the large increase in concealed handgun permits in some rural counties was because people used the guns for hunting. He told us that these low population rural counties tended to have their biggest increase in people obtaining permits in the fall around hunting season. If people were in fact getting a large number of permits in low population counties which already have extremely low crime rates for some reason other than crime, it will make it more difficult to pick up the deterrent effect on crime from concealed handguns that was occurring in the larger counties.

[66] We reran these regressions taking the natural logs of the arrest and conviction rates, and they continued to produce statistically larger and even economically more important effects for the arrest rates than they did for the conviction rates.

tem. For rape, increasing the arrest rate by 1 percentage point produces more than 10 times the deterrent effect of increasing the conviction rate conditional on arrest by 1 percent. The reverse is true for auto theft, where a 1 percentage point increase in arrests reduces crime by about 10 times more than the same increase in convictions. These results are consistent with arrests producing large shaming or reputational penalties.[67] In fact, the existing evidence shows that the reputational penalties from arrest and conviction can dwarf the other legally imposed penalties.[68] However, while the literature has not separated out whether these drops are occurring because of arrest or conviction, these results are consistent with the reputational penalties for arrests alone being significant for at least some crimes.

One possible explanation for these results is that Oregon simultaneously passed both the "shall issue" concealed handgun law and a waiting limit. Given the very long waiting period imposed by the Oregon law (15 days), the regressions in Table 10 imply that such a waiting period increases murder by 4.8 percent, rape by 2 percent, and robbery by 5.9 percent. At least in the case of murder, which is almost statistically significant in any case, combining the two sets of regressions implies that the larger drop in murder that would have been observed in the absence of the Oregon waiting period would have produced a *t*-statistic for murder of 1.8.

The results for the prison sentences are not shown, but the *t*-statistics are frequently near zero and the coefficients indicate no clear pattern. One possible explanation for this result is that all the changes in sentencing rules produced a great deal of noise in this variable not only over time but also across counties. For example, after 1989 whether a crime was prosecuted under the pre- or post-1989 rules depended on when the crime took place. If the average time between when the offense occurred and when the prosecution took place differs across counties, the recorded prison sentence length could vary even if the actual time served was the same.

Finally, the much more limited data set for Arizona used in Table 17 produces no significant relationship between the change in concealed handgun permits and the various measures of crime rates. In fact, the coefficient signs themselves indicate no consistent pattern, with the 14 coefficients being equally divided between negative and positive signs, though six of the specifications imply that a 1 standard deviation change in the concealed handgun permits explains at least 8 percent of a 1 standard deviation change in the corresponding crime rates. The results involving either the mean

[67] For example, see Dan M. Kahan, What Do Alternative Sanctions Mean? 63 U. Chi. L. Rev. 591–653 (1996).

[68] Lott, *supra* note 23; Lott, The Effect of Conviction; and An Attempt at Measuring the Total Monetary Penalty from Drug Convictions, both *supra* note 24.

prison sentence length for those sentenced in a particular year or the actual time served for those ending their sentences also imply no consistent relationship between prison and crime rates. While the coefficients are negative in 11 of the 14 specifications, they provide weak evidence of the deterrent effect of longer prison terms: only two coefficients are negative and statistically significant. Since the Brady Law also went into effect during this sample period, we reran Table 17 using a dummy variable for the Brady Law. Both the coefficients for the change in permits and the Brady Law dummy variable are almost always insignificant, except for the case of aggravated assault, where the Brady Law is both positive and significant, implying that it increased the number of aggravated assaults by 24 percent.

Overall, the Pennsylvania results provide more evidence that concealed handgun ownership reduces violent crime, murder, rape, and aggravated assault, and in the case of Oregon larceny decreases as well. While the Oregon data imply that the change in handgun permits is statistically significant at 11 percent level for a one-tailed *t*-test, the point estimate is extremely large economically, implying that a doubling of permits reduces murder rates by 37 percent. The other coefficients for Pennsylvania and Oregon imply no significant relationship between the change in concealed handgun ownership and crime rates. The evidence from the small sample for Arizona implies no relationship between crime and concealed handgun ownership. All the results also support the claim that higher arrest and conviction rates deter crime, though, possibly in part due to the relatively poor quality of the data, no systematic effect appears to occur from longer prison sentences.

Combining these individual state estimates with the National Institute of Justice's measures of the losses that victims bear from crime allows us to attach a monetary value to the marginal social benefit from an additional concealed handgun permit and to compare this with the private costs of gun ownership. While the results for Arizona imply no real savings from reduced crime, the estimates for Pennsylvania indicate that potential victims' costs are reduced by $5,079 for each additional concealed handgun permit, and for Oregon the savings are $3,439 per permit. As with the discussion in Table 5, the results are largely driven by the effect that concealed handguns have in lowering the murder rate (with savings of $4,986 for Pennsylvania and $3,202 for Oregon).

These estimated gains appear to far exceed the private costs of owning a concealed handgun. The purchase price of concealed handguns ranges from $25 for the least expensive .25-caliber pistols to $719 for the newest ultracompact 9 millimeter models; the permit filing fees can range from $19 every 5 years in Pennsylvania to a first-time $65 fee with subsequent 5-year renewals at $50 in Oregon; and several hours of supervised safety training are required in Oregon. Assuming a 5 percent real interest rate and the abil-

TABLE 17

ARIZONA DATA ON THE NUMBER OF PERMITS ISSUED, THE CONVICTION RATE, AND PRISON SENTENCE LENGTHS, 1990–95

	Endogenous Variables (in Crimes per 100,000 Population)													
	ln(Murder Rate)		ln(Rape Rate)		ln(Aggravated Assault Rate)		ln(Robbery Rate)		ln(Auto Theft Rate)		ln(Burglary Rate)		ln(Larceny Rate)	
Exogenous Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Change in the (number right-to-carry pistol permits/population) from the zero allowed before the law and each year since the law was implemented; the numbers for 1994 were multiplied by .5	.0016	.0025	−.0803	−.0095	.0051	−.00516	.0037	.0039	−.0019	−.0176	.0006	.0007	−.0003	−.0005
	(.209)	(.311)	(1.397)	(.334)	(1.265)	(1.291)	(.574)	(.551)	(.222)	(.940)	(.210)	(.225)	(.094)	(.185)
	1.7%	2.7%	8%	2%	9%	9%	3%	3%	2%	9%	8%	9%	1%	1%
Conviction rate for the crime category corresponding to the appropriate endogenous variable	−.0039	−.00399	−.0055	−.0053	−.0453	−.0429	−.0111	−.0110	−.1373	−.1605	−.10032	−.1037	−.325	−.3298
	(7.677)	(6.798)	(7.558)	(7.014)	(13.51)	(12.18)	(9.553)	(9.391)	(1.678)	(1.879)	(14.44)	(14.62)	(12.1)	(13.80)
	29%	30%	27%	26%	72%	67%	21%	20%	37%	43%	28%	29%	60%	60%

Mean prison sentence length for those sentenced to prison in that year	−.01033	...	.0052	...	−.0261	...	−.0095	...	−.0087	...	−.0084	...	−.018	...
	(1.457)		(.364)		(1.155)		(.629)		(.055)		(1.759)		(.936)	
	5%		2%		6%		1%		.2%		.7%		3%	
Time served for those ending their prison terms in that year	...	.0041	...	−.0178	...	−.0170	...	−.0221	...	.0317	...	−.0119	...	−.0952
		(.18)		(.602)		(.464)		(.871)		(.463)		(.405)		(3.479)
		4%		2%		2%		2%		2%		.8%		11%
Population per square mile	−.1014	−.0791	−.4748	−.4459	−.1424	−.1361	−.1411	−.1514	−.413	−.4019	−.0835	−.0798	−.0313	−.00030
	(.826)	(.569)	(3.595)	(3.274)	(2.164)	(1.942)	(1.288)	(1.477)	(2.603)	(2.433)	(1.759)	(1.670)	(.631)	(.319)
Intercept	1.208	.926	1.4750	1.477	4.341	4.365	1.838	1.753	3.432	2.5099	5.467	5.4296	6.621	6.873
	(3.594)	(1.765)	(5.095)	(5.262)	(28.46)	(26.30)	(5.157)	(4.203)	(5.061)	(7.094)	(38.66)	(5.430)	(53.03)	(57.475)
N	74	70	78	75	89	86	64	68	60	89	84	84	85	84
F-statistic	17.26	14.50	27.64	24.86	56.48	38.79	81.33	76.67	32.12	39.60	109.61	101.18	99.75	118.24
Adjusted R^2	.8367	.8182	.8925	.8856	.9380	.9439	.9656	.9629	.9239	.9330	.9691	.9666	.9658	.9713

NOTE.—Absolute *t*-statistics are in parentheses, and the percentage reported below that is the percent of a standard deviation change in the endogenous variable that can be explained by a 1 standard deviation change in the exogenous variable. All variables, except for the county's population and the year and county dummies, have been reported. The categories for violent and property crimes are eliminated because the mean prison sentence data supplied by Oregon did not allow us to use these two categories. All regressions use weighting where the weighting is each county's population. Odd-numbered columns control for mean prison sentence, while even-numbered columns control for time actually served for those leaving prison.

ity to amortize payments over 10 years, purchasing a $300 handgun and paying the licensing fees every 5 years in Pennsylvania implies a yearly cost of only $43, excluding the time costs incurred. The estimated expenses for Oregon are undoubtedly higher because of both the higher fees and the time costs and fees involved in obtaining certified safety instruction, but even if these annual costs double, they are still quite small compared to the social benefits. While any ammunition purchases and additional annual training would increase annualized costs, the very long life span of guns and the ability to resell them work to reduce the above estimate. The results imply that permitted handguns are being obtained at much lower than optimal rates, perhaps because of the important externalities not directly captured by the handgun owners themselves.

V. Accidental Deaths from Handguns

Even if "shall issue" handgun permits lower murder rates, the question of what happens to accidental deaths still remains. Possibly, with more people carrying handguns, accidents may be more likely to happen. Earlier we saw that the number of murders prevented exceeded the entire number of accidental deaths. In the case of suicide, carrying concealed handguns increases the probability that a gun will be available to commit suicide with when an individual feels particularly depressed, and thus it could conceivably increase the number of suicides. As Table 2 showed, while only a small portion of accidental deaths are attributable to handgun laws, there is still the question whether concealed handgun laws affected the total number of deaths through their effect on accidental deaths.

To get a more precise answer to this question, Table 18 uses county-level data from 1982 to 1991 to test whether allowing concealed handguns increased accidental deaths. Data are available from the Mortality Detail Records (provided by the United States Department of Health and Human Services) for all counties from 1982 to 1988 and for counties over 100,000 population from 1989 to 1991. The specifications are identical to those shown in all the previous tables with the exceptions that we no longer include variables related to arrest or conviction rates and that the endogenous variables are replaced with a measure of the number of either accidental deaths from handguns or accidental deaths from all other nonhandgun sources.

While there is some evidence that the racial composition of the population and the level of income maintenance payments affect accident rates, the coefficient of the shall issue dummy is both quite small economically and insignificant. The point estimates for the first specification imply that accidental handgun deaths rose by about .5 percent when concealed hand-

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TABLE 18

DID CARRYING CONCEALED HANDGUNS INCREASE THE NUMBER OF ACCIDENTAL DEATHS? COUNTY-LEVEL DATA, 1982–91

	Endogenous Variables (in Deaths per 100,000 Population)			
	Ordinary Least Squares		Tobit	
Exogenous Variables	ln(Accidental Deaths from Handguns)	ln(Accidental Deaths from Nonhandgun Sources)	Accidental Deaths from Handguns	Accidental Deaths from Nonhandgun Sources
Shall issue law adopted dummy	.00478	.0980	.574	1.331
	(.096)	(1.706)	(.743)	(.840)
Population per square mile	−.0007	.000856	−.0000436	−.0001635
	(6.701)	(7.063)	(.723)	(1.083)
Real per capita personal income	.0000267	−.000057	.0000436	−.009046
	(1.559)	(2.882)	(1.464)	(6.412)
Intercept or ancillary parameter	−3.376	−8.7655	7.360841	29.36
	(1.114)	(2.506)	(44.12)	(201.7)
N	23,271	23,271	23,271	23,271
F-statistic	3.98	3.91		
Adjusted R^2	.2896	.2846		
Log likelihood			−7,424.6	−109,310.6
Left-censored observations			21,897	680

NOTE.—While not all the coefficient estimates are reported, all the control variables are the same as those used in Table 3, including year and county dummies. Absolute t-statistics are in parentheses. All regressions weight the data by each county's population.

gun laws were passed. With only 156 accidental handgun deaths during 1988 (22 accidental handgun deaths occurred in states with "shall issue" laws), this point estimate implies that implementing a concealed handgun law in those states which currently do not have it would produce less than one more death (.851 deaths).

Given the very small number of accidental handgun deaths in the United States, the vast majority of counties have an accidental handgun death rate of zero, and thus using ordinary least squares is not the appropriate method of estimating these relationships. To deal with this, the last two columns in Table 18 reestimate these specifications using Tobit procedures. However, because of limitations in statistical packages we were no longer able to control for all the county dummies and opted to rerun these regressions with only state dummy variables. While the coefficients for the concealed handgun law dummy variable is not statistically significant, with 186 million people living in states without these laws in 1992,[69] the third specification implies that implementing the law across those remaining states would have resulted in about 9 more accidental handgun deaths. Combining this finding with the earlier estimates from Tables 3 and 4, if the rest of the country had adopted concealed handgun laws in 1992, the net reduction in total deaths would have been approximately from 1,405 to 1,583.

VI. Conclusion

Allowing citizens without criminal records or histories of significant mental illness to carry concealed handguns deters violent crimes and appears to produce an extremely small and statistically insignificant change in accidental deaths. If the rest of the country had adopted right-to-carry concealed handgun provisions in 1992, at least 1,414 murders and over 4,177 rapes would have been avoided. On the other hand, consistent with the notion that criminals respond to incentives, county-level data provides evidence that concealed handgun laws are associated with increases in property crimes involving stealth and where the probability of contact between the criminal and the victim is minimal. The largest population counties where the deterrence effect from concealed handguns on violent crimes is the greatest also experienced the greatest substitution into property crimes. The estimated annual gain in 1992 from allowing concealed handguns was over $5.74 billion.

The study provides the first estimates of the annual social benefit from private expenditures on crime reduction, with an additional concealed hand-

[69] In 1991, 182 million people lived in states without these laws, so the Tobit regressions would have also implied nine more accidental handgun deaths in that year.

gun permit reducing total victim losses by up to $5,000. The results imply that permitted handguns are being obtained at much lower than optimal rates in two of the three states for which we had the relevant data, perhaps because of the important externalities that are not captured by the individual handgun owners. Our evidence implies that concealed handguns are the most cost-effective method of reducing crime thus far analyzed by economists, providing a higher return than increased law enforcement or incarceration, other private security devices, or social programs like early educational intervention.[70]

The data also supply dramatic evidence supporting the economic notion of deterrence. Higher arrest and conviction rates consistently and dramatically reduce the crime rate. Consistent with other recent work,[71] the results imply that increasing the arrest rate, independent of the probability of eventual conviction, imposes a significant penalty on criminals. Perhaps the most surprising result is that the deterrent effect of a 1 percentage point increase in arrest rates is much larger than the same increase in the probability of conviction. Also surprising is that while longer prison lengths usually implied lower crime rates, the results were normally not statistically significant.

This study incorporates a number of improvements over previous studies on deterrence, and it represents a very large change in how gun studies have been done. This is the first study to use cross-sectional time-series evidence for counties at both the national level and for individual states. Instead of simply using cross-sectional state- or city-level data, our study has made use of the much bigger variations in arrest rates and crime rates between rural and urban areas, and it has been possible to control for whether the lower crime rates resulted from the gun laws themselves or other differences in these areas (for example, low crime rates) which led to the adoption of these laws. Equally important, our study has allowed us to examine what effect concealed handgun laws have on different counties even within the same state. The evidence indicates that the effect varies both with a county's level of crime and with its population.

[70] For a comparison with the efficiency of other methods to reduce crime, see John Donohue and Peter Siegelman, Is the United States at the Optimal Rate of Crime? Stanford University School of Law (1996); and Ian Ayres and Steven Levitt, Measuring Positive Externalities from Unobservable Victim Precaution: An Empirical Analysis of Lojack (Yale University working paper, October 1996). For a discussion of what constitutes true externalities (both benefits and costs) from crime, see Kermit Daniel and John R. Lott, Jr., Should Criminal Penalties Include Third-Party Avoidance Costs? 24 J. Legal Stud. 523–34 (June 1995).

[71] Kahan, *supra* note 67; and Lott, The Effect of Conviction; and An Attempt at Measuring the Total Monetary Penalty from Drug Convictions, both *supra* note 24.

DATA APPENDIX

The number of arrests and offenses for each crime in every county from 1977 to 1992 were provided by the Uniform Crime Report (UCR). The UCR program is a nationwide, cooperative statistical effort of over 16,000 city, county, and state law enforcement agencies to compile data on crimes that are reported to them. During 1993, law enforcement agencies active in the UCR Program represented over 245 million U.S. inhabitants, or 95 percent of the total population. The coverage amounted to 97 percent of the U.S. population living in metropolitan statistical areas (MSAs) and 86 percent of the population in non-MSA cities and in rural counties.[72] The Uniform Crime Reports Supplementary Homicide Reports supplied the data on the victim's sex and race and whatever relationship might have existed between the victim and the offender.[73]

The regressions report results from a subset of the UCR data set, though we also ran the regressions with the entire data set. The main differences were that the effects of concealed handgun laws on murder were greater than what is shown in this paper and the effects on rape and aggravated assault were smaller. Observations were eliminated because of changes in reporting practices or definitions of crimes (see *Crime in the United States* (1977–92)). For example, from 1985 to 1994 Illinois adopted a unique "gender-neutral" definition of sex offenses. Another example involves Cook County, Illinois, from 1981 to 1984 where there was a large jump in reported crime because there was a change in the way officers were trained to report crime. The additional observations that either were never provided or were dropped from the data set include Arizona (1980), Florida (1988), Georgia (1980), Kentucky (1988), and Iowa (1991). The counties with the following cities were also eliminated: violent crime and aggravated assault for Steubenville, Ohio (1977–89); violent crime and aggravated assault for Youngstown, Ohio (1977–87); violent crime, property crime, aggravated assault, and burglary for Mobile, Alabama (1977–85); violent crime and aggravated assault for Oakland, California (1977–90); violent crime and aggravated assault for Milwaukee, Wisconsin (1977–85); all crime categories for Glendale, Arizona (1977–84); violent crime and aggravated assault for Jackson, Mississippi (1977–83); violent crime and aggravated assault for Aurora, Colorado (1977–82); violent crime and aggravated assault for Beaumont, Texas (1977–82); violent crime and aggravated assault for Corpus Cristi, Texas (1977–82); violent crime and rape for Macon, Georgia (1977–81); violent crime, property crime, robbery, and larceny for Cleveland, Ohio (1977–81); violent crime and aggravated assault for Omaha, Nebraska (1977–81); all crime categories for Little Rock, Arkansas (1977–79); all crime categories for Eau Claire, Wisconsin (1977–78); all crime categories for Green Bay, Wisconsin (1977).

For all of the different crime rates, except for the Supplementary Homicide Data, if the true rate equals zero, we added .1 before we took the natural log of those

[72] Federal Bureau of Investigation, Crime in the United States (Uniform Crime Reports 1994). We also wish to thank Tom Bailey at the FBI and Jeff Maurer at the U.S. Department of Health and Human Services for answering questions concerning the data used in this article.

[73] The Intercensal Estimates of the Population of Counties by Age, Sex and Race (ICPSR) number for this data set was 6,387, and the principal investigator was James Alan Fox of Northeastern University College of Criminal Justice.

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values. For the accident rates and the Supplementary Homicide Data, if the true rate equals zero, we added .01 before we took the natural log of those values.[74]

The original Uniform Crime Report data set did not have arrest data for Hawaii in 1982. These missing observations were supplied to us by the Hawaii Uniform Crime Report program. In the original data set, a few observations also had two listings for the same county and year identifiers. The incorrect observations were deleted from the data.

The number of police in a state, which of those police have the power to make arrests, and police payrolls for a state by type of police officer are available for 1982–92 from the U.S. Department of Justice's Expenditure and Employment Data for the Criminal Justice System.

The data on age, sex, and racial distributions estimate the population in each county on July 1 of the respective years. The population is divided into 5-year segments, and race is categorized as white, black, and neither white nor black. The population data, with the exception of 1990 and 1992, were obtained from the Bureau of the Census.[75] The estimates use modified census data as anchor points and then employ an iterative proportional fitting technique to estimate intercensal populations. The process ensures that the county-level estimates are consistent with estimates of July 1 national and state populations by age, sex, and race. The age distributions of large military installations, colleges, and institutions were estimated by a separate procedure. The counties for which special adjustments were made are listed in the report.[76] The 1990 and 1992 estimates have not yet been completed by the Bureau of the Census and made available for distribution. We estimated the 1990 data by taking an average of the 1989 and 1991 data. We estimated the 1992 data by multiplying the 1991 populations by the 1990–91 growth rate of each county's populations.

Data on income, unemployment, income maintenance, and retirement were obtained by the Regional Economic Information System. Income maintenance includes Supplemental Security Insurance, Aid to Families with Dependent Children, and food stamps. Unemployment benefits include state unemployment insurance compensation, Unemployment for Federal Employees, unemployment for railroad employees, and unemployment for veterans. Retirement payments include Old Age, Survivors, and Disability Insurance, federal civil employee retirement payments,

[74] Dropping the zero crime values from the sample made the shall issue coefficients larger and more significant, but doing the same thing for the accident rate regressions did not alter those shall issue coefficients. (See also the discussion at the end of Section IV*B*.)

[75] For further descriptions of the procedures for calculating intercensus estimates of population, see U.S. Department of Commerce, Bureau of the Census, Intercensal Estimates of the Population of Counties by Age, Sex, and Race (United States): 1970-1980 (ICPSR No. 08384, ICPSR, Ann Arbor, Mich., Winter 1985); also see U.S. Department of Commerce, Bureau of the Census, Intercensal Estimates of the Population of Counties by Age, Sex and Race: 1970–1980 Tape Technical Documentation. U.S. Bureau of the Census, Current Population Reports, Series P-23, No. 103, Methodology for Experimental Estimates of the Population of Counties by Age and Sex: July 1, 1975. U.S. Bureau of the Census, Census of Population, 1980: County Population by Age, Sex, Race and Spanish Origin (Preliminary OMB-Consistent Modified Race).

[76] U.S. Bureau of the Census, Current Population Reports, Series P-23, No. 103, Methodology for Experimental Estimates of the Population of Counties by Age and Sex: July 1, 1975. U.S. Bureau of the Census, Census of Population, 1980: County Population by Age, Sex, Race and Spanish Origin (Preliminary OMB-Consistent Modified Race), at 19–23.

military retirement payments, state and local government employee retirement payments, and workers compensation payments (both federal and state). Nominal values were converted to real values by using the consumer price index.[77] The index uses the average consumer price index for July 1983 as the base period. There were 25 observations whose county codes did not match any counties listed in the ICPSR code book. Those observations were deleted from the sample.

Data concerning the number of concealed weapons permits for each county were obtained from a variety of sources. The Pennsylvania data were obtained from Alan Krug. Mike Woodward of the Oregon Law Enforcement and Data System provided the Oregon data for 1991 and after. The number of permits available for Oregon by county in 1989 was provided by the sheriffs' departments of the individual counties. Cari Gerchick, deputy county attorney for Maricopa County in Arizona, provided us with the Arizona county-level conviction rates, prison sentence lengths, and concealed handgun permits from 1990 to 1995. The National Rifle Association provided data on their membership by state from 1977 to 1992. Information on the dates at which states enacted enhanced sentencing provisions for crimes committed with deadly weapons was obtained from Marvell and Moody.[78] The first year where the dummy variable comes on is weighted by the portion of that first year that the law was in effect.

For the Arizona regressions, the Brady Law dummy for 1994 is weighted by the percentage (83 percent) of the year that it was in effect.

The Bureau of the Census provided data on the area in square miles for each county. The number of total and firearm unintentional injury deaths was obtained from annual issues of *Accident Facts* and *The Vital Statistics of the United States.* The classification of types of weapons is in *International Statistical Classification of Diseases and Related Health Problems, Tenth Edition, Volume 1.* The handgun category includes guns for single-hand use, pistols, and revolvers. The total includes all other types of firearms.

Finally, while our regressions use the ICPSR's estimates of arrest rates, after this paper was accepted we discovered that the ICPSR may have accidentally recorded some missing data on the number of arrests as zero. Working with the ICPSR and the FBI we attempted to correct this problem, and doing so tends to usually increase the significance and size of the shall issue dummies.

[77] U.S. Bureau of the Census, Statistical Abstract of the United States, Table No. 746, at 487 (114th ed. 1994).

[78] Marvell & Moody, *supra* note 43, at 259–60.

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TESTIMONY OF JUDY MORRISON ON S.B. 21
FEDERAL AND STATE AFFAIRS COMMITTEE
KANSAS HOUSE OF REPRESENTATIVES
FEBRUARY 10, 1997.

Madam Chairwoman and Committee members, thank you for hearing my testimony today. My name is Judy Morrison and I live in Shawnee, Kansas. In 1984 my daughter Shanna was diagnosed with cancer. Thus, began four years of ongoing treatment. Shanna was treated several hundred miles from home.

Originally her treatment involved monthly visits to the hospital. As her disease became more complex and side effects worsened, we found our stays more frequent, and often longer than anticipated.

Eventually, finances made it impossible to fly for each visit. When Shanna felt she could make the trip by car we did so. Many times, we arrived home late at night or early morning. It was often necessary to stop beside the highway when she became ill from chemotherapy.

On one occasion a tire blew out. We had a frightening experience. It left my daughter in tears and suggesting we should never be on the road without a way to defend ourselves. I felt only a firearm would be effective. However, I explained that would not be feasible under the law. Shanna did not think that was a good law, and frankly neither did I. Nor do I today.

I often think of other children and mothers in vulnerable situations, mothers that bear the full responsibility for the safety of their children.

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Physically, few women can defend themselves against a man. Criminals prey on the weak. Criminals will always have access to guns. As much as law enforcement officers want and try to protect us, statistics have proven it to be impossible. Unfortunately, they cannot fight crime alone.

Attached you will find two articles regarding violent crimes that have taken place in Shawnee Mission within three months. One, a car jacking, June l3 at 6:15 in the evening on a busy highway. Debbie (co-worker of my husband) looked on as the Father of her two sons was murdered before her eyes. The second incident took place just three months later. A lady was raped on the ground beside her car on I-35 shortly before noon. Eight lanes of traffic were whizzing by and an overpass was nearby. These are but two examples of my worst nightmares as we traveled.

February 25, 1988 Shanna passed away but I do still have a twenty eight year old daughter. Please allow women like my daughter and myself the right to protect ourselves. More importantly, allow us the right to protect our precious children.

Kansas is one of only seven states without a law allowing honest citizens to carry firearms for self-defense. I am asking you to trust law-abiding Kansans.

Judy Morrison
Shawnee, Ks.
913-631-4817

THE OVERLAND PARK SUN
BLUE VALLEY EDITION
Delivered Every Wednesday and Friday Morning

Manard

First suspect charged in OP carjacking death; second person expected to be charged

By Phil LaCerte
Sun Staff Writer

John M. Manard was charged Tuesday in Johnson County District Court with felony murder and aggravated robbery.

Manard is a suspect in the June 13 slaying of Donald England during an apparent carjacking. District Attorney Paul Morrison said a team of Overland Park detectives was continuing an investigation, and that charges against a second individual could be filed.

"I'm confident we'll get a makable case against a second suspect," Morrison said.

Morrison declined to identify a second suspect, but detectives on a since-disbanded metro squad said during an initial investigation that they were seeking Michael P. Yardley in connection with England's murder. Yardley was arrested Thursday

See MURDER, Page 2

MURDER

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night in Gardner, and appeared Monday in Johnson County District Court on charges unrelated to the carjacking.

Manard was with Yardley when Yardley was arrested, but he managed to elude police. He was arrested Saturday night at a Gardner apartment complex after a nearly three-hour stand-off with police. He was finally coaxed from the apartment by his mother.

Manard was arrested on existing warrants unrelated to England's slaying.

England was alone in a car parked in front of a hair salon at 7800 Shawnee Mission Parkway on the evening of June 13 when one suspect approached the driver's side door and another approached the passenger side door. England was shot as he exited the vehicle.

The suspects fled the scene in England's 1990 Chrysler Le Baron convertible, which later was found abandoned and undamaged behind Tomahawk Elementary School.

Eyewitness was shocked by midday assault on I-35

By Steve Baska
Sun Staff Writer

Police seek suspect.....Page 3A

An eyewitness who stopped at the scene of the I-35 sexual assualt on Monday said other drivers who also stopped to help were in shock at the brazen attack.

Dave Gernhardt, Olathe, pulled up moments after the suspect had fled.

"The women there, especially, said it was unbelievable that this happened in the middle of the day on a highway," Gernhardt said.

Gernhardt was driving northbound on I-35 about 11:50 a.m. when he passed the assault site in the southbound lane just north of the I-435 and I-35 interchange. At that moment, the suspect was driving away in his van, the female victim was standing in the highway waving her arms for help and about four cars had already pulled over to help her. Gernhardt, 43, quickly turned his truck around at 95th Street and went back to the site.

"When I pulled up at the scene, the woman was sitting in her car sobbing and people were helping her," he said. "She had a cut on her brow and her hose were ripped at the knees from the struggle."

Other drivers had arrived first and yelled at the attacker, scaring him away. Police, alerted by drivers with cellular phones, arrived moments before Gernhardt, who learned the story from other witnesses at the scene.

Gernhardt said he saw the suspect's van driving away southbound, and he believed the van to be a copper color, instead of red, as police are reporting.

"I've been looking for that van ever since," Gernhardt said. "I believe in capital punishment, and this guy deserves it."

Gernhardt, who is a tow truck driver for Lightning Tow in Olathe, said he has been to the sites of many accidents, but never anything like a sexual assault beside a busy highway.

"I was shocked too," he said. "I hope they find this guy."

9-13-96

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9-18-96 Sun Newspaper

Police: I-35 suspect stalked other women

Shawnee woman tells police same man enticed her to pull off of road

By Steve Baska
Sun Staff Writer

The man charged with sexually assaulting a woman on I-35 in Lenexa is believed to have assaulted another woman on a local highway and followed at least two other women, all within the last four weeks, said a Lenexa police detective.

Allred

James Patrick Allred, 32, Kansas City, Kan., remains in the Johnson County jail charged with rape after an attack last week on a woman on I-35 at 95th Street. He faces another court appearance at 10:30 a.m. Thursday.

Lenexa police said Monday that media coverage of the case spurred a 29-year-old Shawnee woman to call and identify Allred as the man who stopped her at I-635 and Metropolitan Road in Kansas City, Kan., when he allegedly flashed the lights in a van he was driving to get the woman to pull over.

"She thought she had car trouble, so she pulled over," said Lenexa Det. David Lewis-Jones. "When she got out of her car, the suspect hit her in the

See RAPE, Page 2

RAPE

From Page 1

face and took her purse."

The woman said she believed the man drove a brown van. The same pattern of motioning to a woman to pull over was used in the Lenexa assault. Allred allegedly drove a red van in that case. Witnesses at the Lenexa scene gave a partial license tag number that matched the tag on Allred's van, Lewis-Jones said.

At least two other female callers to the TIPS hotline reported seeing a man resembling Allred in a brownish or reddish van following them on local roads, Lewis-Jones said.

"We are continuing to gather information about similar incidents to attempt to show a predisposition on his part," Lewis-Jones said.

Allred, a construction worker who has two previous convictions for sex crimes, was released from prison in March after serving 10 years for the rape of a 16-year-old girl in 1985.

Police are gathering physical evidence from the Lenexa attack for a trial, Lewis-Jones said. The Johnson County Crime Lab is trying to lift fingerprints from the victim's car and the lab is studying skin and blood samples taken from underneath the victim's fingernails. The victim scratched the assailant during the struggle, Lewis-Jones said.

If convicted, Allred could receive 122 years in prison because new sentencing guidelines passed by the Kansas Legislature last spring increased sentences for repeat sexual offenders.

More women say suspect in I-35 rape stalked them

Six women have now identified the man charged with sexually assaulting a woman on I-35 as being the man who tried to make them pull over their cars on local highways, Lenexa police say.

James Patrick Allred, 32, Kansas City, Kan., remains in the Johnson County jail and is charged with rape in the 11:50 a.m. assault on an Overland Park woman on I-35 just north of I-435. Allred allegedly motioned for the woman to pull over, making her think something was wrong with her car. When she did, he attacked her, police said.

In the days following the attack, three other women called police to say they recognized Allred from photos in the media and identified him as being the man who drove beside them on local roads trying to get them to pull over. Six women have now called police to identify him as having allegedly done the same to them, said Lenexa Police Det. David Lewis-Jones.

Lenexa police continued gathering evidence this week against Allred by issuing a search warrant ordering him to surrender samples of his blood, head hair and saliva for use in trying to match his DNA with physical evidence from the assault.

6-3

February 4, 1997

TESTIMONY OF HERB TAYLOR

Chairman Oleen and Honorable Members of The Senate Federal and State Affairs Committee, thank you for allowing me to briefly address you this afternoon on issues of importance to my family and myself. The subjects are SB #21 and Senate Concurrent Resolution #1606. I wholeheartedly support Senate Bill #21, the "Right to Self Protection". At the same time I strongly oppose Senate Concurrent Resolution #1606 which seriously infringes on individual rights.

My name is Herb Taylor and I am a lifelong resident of Kansas. For the past 28 years my wife and I have resided in Shawnee, Kansas. Until recently, I was employed as the General Manager of a graphic arts business located in a light industrial park in Kansas City, Kansas. There have been numerous instances of criminal activity in the complex attributed to "gangs" that operate in the area.

When an alarm at the business was activated, I got the first phone call from the alarm company after police notification. The calls came at dinnertime on holidays as well as 3:00 o'clock in the morning with an apparent break-in in progress. With the high degree of criminal activity in the area, a personal response to the situation was called for and I was never sure of what would be encountered upon my arrival. I was met by law enforcement personnel in only two of the more than twenty-five times I responded to an alarm call.

When responding to these middle of the night situations, I took some type of personal protection along. My drive to the plant took me through three or four different municipalities. The State of Kansas currently allows each Municipality to enact their own local firearms' laws and does not allow "law abiding" citizens the right to carry a firearm for personal protection. This creates a situation where no one individual can possibly know or understand the myriad of local laws or even be aware of potential violations. In an attempt to not violate the law; I carried my firearm in an unloaded, out of reach, broken down state. It does not give you much comfort to arrive on a potential crime scene and at that moment to be unprepared for what might await you.

By virtue of my job, I often worked late at night. It is an uncomfortable feeling to walk to your car after dark and be unable to rely on some type of "personal self protection".

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On a day to day basis, law enforcement does a very fine job of carrying out their duties. However, they rarely are in a position to prevent crimes. For the most part our law enforcement personnel are put in a position of reaction only to a crime. Because the police are not required to protect us, (this has been upheld by the Supreme Court); we, the "law-abiding" citizens are requesting the right and ability to protect our families and ourselves.

Criminals have absolutely no compunction at carrying "concealed firearms" and using them in the pursuit of their illegal activities. Criminals will however, be much more reluctant to prey on the "law-abiding" citizen if they feel that the potential victim might be armed and able to protect themselves. This is where the "concealed firearm" presents a cause of concern for the criminal.

When a TV "news magazine" program visited juvenile detention facilities in South Florida to find out why violent juvenile gangs targeted Foreign tourists for attack, the incarcerated juveniles said "they knew Foreign tourists were not carrying personal self protection". These juvenile predators admitted that since Florida allows its law-abiding citizens the right to self-protection, they therefore avoid the residents fearing they may be armed. What better case for the "Right to Self Protection" laws than the admissions of juvenile gangs -- the most violent segment of the criminal population?

With passage of this bill there are safeguards against criminal licensing. Does anyone think for a minute that any Criminal would try to get a permit; what with having to submit to photo ID, finger printing and a background check? Additionally there are specific training requirements to be met to get a permit for self-protection.

In closing, thank you for listening to the testimony of concerned Kansas citizens. We look forward to a positive outcome from you, the Legislators we have elected, in our pursuit of the "Right to Personal and Family Protection" in Kansas in 1997 and thereafter. As I stand here today, Kansas is one of only seven States in this Country that does not allow it's law-abiding citizens the "Right to Self Protection"! Please support and pass SB #21 and establish a "Non-Discretionary, Self Protection" law for all law-abiding Kansas citizens!

At the same time I would ask you to vote against SCR #1606 which is a major infringement of Personal Rights. I am sure all of you here are aware that the United States of America is a Republic and in republics we elect representatives to enact legislation. We do not vote on rights! Thank you again for your time.

Herb Taylor

Herb Taylor
Shawnee, Kansas
913-268-6198

Testimony of Cindy Combs,Hutchinson, Ks.
In support of the Right-to-Carry
Feburary 10, 1997

Hello my name is Cindy Combs and I appreciate the opportunity to testify before you today.

I was born and raised on Kansas soil and I currently live in Hutchinson, Kansas. I am the mother of three young Kansans, Cody, age 12, Cammie, age 10 and my youngest, Casey, is two years old. I am proud to announce that Cody is ready to graduate from grade school and will enter Junior High this fall.

I am here today out of concern for my safety, the safety of Cody, Cammie and Casey, and the safety of all Kansas families like mine. Thankfully, neither I nor my three children have ever been the target of criminal attack, but we ... and every other law-abiding Kansan ... are victims none-the-less. We are victims of fear --- the fear of a violent crime.

This fear prevents us from walking through the woods away from the safe company of others. This fear prevents us from jogging down a country road, breathing the fresh air. Instead, we must jog down congested streets, breathing car fumes. This fear makes us prisoners in our homes and teaches us to dread the darkness. This fear splinters our communities and prevents us from fully realizing the blessings of this great state.

As a law-abiding citizen, I have experienced this fear personally and as a certified firearm safety instructor, I have heard the same fears expressed from some of the 200 people to whom I have taught firearm safety.

One of my students told me of being stalked by her ex-husband. She suffered emotionally and physically for two years. He was clever, using threats of harm against her and her kids. He didn't fear the police and would even abuse her in public.

Another student was attacked as she was helping a friend move. When they entered her friend's house they immediately found her friend's toy poodle, dead with it's throat cut. They ran for their car but were chased by a knife wielding assailant who buried the knife blade deep into the car seat, barely missing my student's friend.

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Date: 2-10-97
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Violent crime and the fear it causes is a fact of life. Fear made these women choose the responsibility of firearm ownership over the feeling of helplessness in the face of a violent crime. I take great care to store my firearms in my home away from my children for their safety, but I am prepared to use my firearms to defend my life and those of my family if someone were to enter my home and attack us.

Unfortunately, Kansas law denies me and my students that right once we venture outside.Kansas law says that our lives are precious enough to defend in our kitchens and bedrooms, but not on a deserted street or in a dark parking garage.

One of my students told me of her victimization in a private conversation. She said, "When I was raped, I realized I couldn't win in the struggle so I tightly shut my eyes. I couldn't have identified him in a line-up,but his body odor and breath were so suffocating ... I'll forever remember his smell."

I cannot think of anything much more disturbing than being so helpless in the face of violence that all you can do is shut your eyes. I urge you to give the law-abiding citizens of Kansas a choice. Please vote in favor of Kansans' right to self-defense and the right to carry.

Thank You.

LARRY E. BENGTSON
DISTRICT JUDGE
GEARY COUNTY COURTHOUSE
P.O. BOX 1147
JUNCTION CITY, KANSAS 66441
PHONE (913) 762-5221

February 10, 1997

Dear Members of the Committee:

I am writing on behalf of the District Judges Association. As Judges we are concerned about the enactment of Senate Bill No. 21 (the right to carry a concealed firearm).

While some have claimed that such laws reduce crime, others claim it increases hazards to the public. There does not appear to be, and perhaps there can never be, pure objective "research that would conclusively support one position or the other". The research to date seems to reflect the position the researcher is supporting.

It might be more helpful to reflect on Kansas history and note that when a cowtown came of age and became a community one was required to check one's gun. It was their experience that hot temper in close proximity with firearms was not a good mix.

Many of use who are immersed in the resolution of conflict in society are concerned. Often good law-abiding citizens become involved in confrontations that can result in out of character behavior. Unfortunately such behavior can result in lashing out, or behaving badly. If a firearm is readily available, such actions could result in gunfire instead of fists or words.

We would ask that you carefully consider the consequences of having numerous people on the streets with firearms. It would increase risk to law enforcement personnel who stop an irate or intoxicated driver; a court clerk accepting divorce papers; prosecuting attorneys pursuing wrong doers; Judges entering orders dividing property or changing custody; a citizen serving on a jury; or simply driving down the street.

The benefit of such a law is speculative at best. When those of us in the Courtroom have had cases involving an irate motorist who chased a young mother and three children down on a busy interstate and rammed her car or a stockbroker and a lawyer in a fist fight at a busy intersection on a hot summer day, we often shudder at the thought of a mixture of frustration and anger with readily available firearms.

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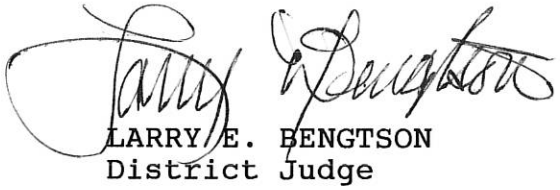
Thank you for taking the time to read this letter and feel free to contact me if you have any questions or comments.

Sincerely,



LARRY E. BENGTSON
District Judge

Natural rights are those rights such as life (from conception), liberty, and the pursuit of happiness, freedom of religion, speech, learning, travel and self defense. Laws and statutes which violate natural rights, though they have the color of law, are not laws but imposters. The U.S. Constitution was written to protect these natural rights from being tampered with by legislators. Further, our forefathers knew that the U.S. Constitution would be utterly worthless to restrain government legislators unless it was clearly understood that the people had the right to compel the government to keep within the constitutional limits. This bill takes a guaranteed right from me and sells it back as a privilege.

Where rights secured by the constitution are concerned, there can be no rule-making which would abrogate them. (Miranda vs. Arizona 384 U.S. 436 p. 491)

No one is bound to obey an unconstitutional law and no courts are bound to enforce it. (16 AM Jur, 2d Sec 177 ; Late 2d Sec 256)

Constitutional rights are not subject to argument. Constitutional law is first law; any infringement on any right is unlawful then and there. No supreme court justice, no president, no appointed or elected bureaucrat has the constitutional authority to restrict or deny a right. To say that you cannot carry a concealed weapon is an infringement on the Second Amendment to the Constitution. It is like many laws being passed illegally now are subterfuged to circumvent the true meaning of our rights.

The bill that is before us today is purely unconstitutional. The founding fathers gave me a right to carry a firearm. The only way my right can be taken from me is by a constitutional convention or for me to be a convicted felon.

My suggestion is to throw this bill in the trash and restore what is legally mine and yours before we lose all of our rights!

The second, the ninth, and the fourteenth amendment protects us from states imposing illegal laws, so what we are faced with is: Do we exercise God-Given rights as sovereign

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Date: 2-10-97
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citizens, or do we continue to grovel for permission to live as subjects just as our ancestors did in 1770?

Thank you

Jack Selbe
Lucas, Kansas

"When the government fears the people, there is liberty. When the people fear the government, there is tyranny."
-- Thomas Jefferson.

Bill of Rights, first ten amendments to the U.S. Constitution, safeguarding fundamental individual rights against usurpation by the federal government and prohibiting interference with existing rights. The precedents for these stipulations came from three separate English documents: the Magna Carta, the Petition of Right, and the Declaration of Rights. Virginia, in 1776, and Massachusetts, in 1780, had incorporated bills of rights into their original constitutions, and these two states, with New York and Pennsylvania, refused to ratify the new federal Constitution unless it was amended to protect the individual. In 1790, Congress submitted 12 amendments, 10 of which were adopted in 1791 as Articles I through X. *See* Constitution of the United States.

MAIN
STREAM COALITION
5250 W. 94th Terrace
Suite 108
Prairie Village, Kansas
66207-2502
913/649-3326

TESTIMONY OF MARIAN DAVIS ON BEHALF OF MAINSTREAM COALITION TO MEMBERS OF THE KANSAS SENATE FEDERAL AND STATE AFFAIRS COMMITTEE ON FEBRUARY 10, 1997.

SUBJECT: SB21 AND SCR 1606 - CONCEALED WEAPONS

I appear before you today in opposition to SB21 and in support of SCR1606. I am speaking on behalf of the MAINstream Coalition in Kansas.

Most citizens of Kansas are unified by our common fear of violent crime. But we disagree when we address practical and legal measures for coping with this serious problem. Over 2,000 Kansans who are members of the MAINstream Coalition believe that as our elected policymakers, you can be most effective in serving the public interest by supporting the efforts of law enforcement officials to keep our cities and towns peaceful. Do not ignore their pleas when they tell us that conceal- and- carry legislation will make their jobs more dangerous.

I am told that most criminals will use only the amount of force necessary in a given situation. If an aggressor believes a victim may be armed, the aggressor will tend to increase the amount of force used in attacking the victim. I have never understood how a pistol in my purse would help me if I were ambushed. If I wanted to carry a gun, I could do so now under current law as long as it was not hidden away.

Each day, we lose more than 100 Americans to gunfire, 16 of them children. The children lost to gunfire are almost always shot with an unlocked, pre-loaded handgun. If SB21 becomes law, children may learn to recognize packing heat as another rite of passage to adulthood. This legislation sends a message to our children that we live in a frightened society, with a vigilante mentality. We should not be surprised if some children will not wait to reach legal age before carrying a weapon.

The state constitutional amendment proposed in SCR1606 would limit the carrying of concealed weapons to those with a professional need or a legitimate sporting use. We support this current policy in Kansas and encourage you to vote "Yes" for SCR1606. We support SCR1606 because, as a constitutional amendment, it would require a public referendum on this important public safety issue. If any policy changes are to be made concerning the carrying of concealed weapons, we ask you to let the people of Kansas make that decision. A vote in favor of SCR 1606 is a vote of confidence in the wisdom of the people of Kansas. We thank you for this opportunity to ask you to vote "No" to SB21 and "Yes" to SCR1606.

Sen. Federal & State Affairs Comm
Date: 2-10-97
Attachment: # 11

Testimony on SB-21 regarding licensure for concealed weapons

For the Senate Federal and State Affairs Committee
February 9, 1997

I urge the committee to defeat this bill. Four reasons:

1) MORE GUNS = MORE DEATHS

* Most developed nations do not allow guns as the US does.

* Guns do not discriminate- more deaths of citizens, children, bystanders etc. are likely

* Guns kill any person in the way- good guys/bad guys

2) NRA PHILOSOPHY IS BAD POLICY

* Idea of "Give guns to good people & lock up bad people". However, guns will likely be used by any kind of people- 'good people' who are angry, drunk, frightened, children.

* The world is not evenly dividable into good guys versus bad guys; innocent versus guilty. That's a legal distinction. We are first of all human. More guns in our homes, cars, and on our selves will result in more deaths.

3) SB-21 MOVES TOWARD RETURN OF THE POSSE

* We believe in the rule of Law rather than vigilante justice. That's why we have governments and police instead of everyone guarding his/her property.

4) THIS BILL INDICATES DESPAIR ABOUT OUR SYSTEM

* Bill reflects vulnerability and fear in society. MORE weapons moves in the wrong direction.

* Leadership builds hope rather than yielding to despair.

Eldon Epp

Testimony by: Eldon Epp, Pastor
Manhattan Mennonite Church
1000 Fremont St.
Manhattan, KS 66502
H) 913-587-8256
W) 913 539-4079

Kansas County & District Attorneys Association

827 S. Topeka Blvd., 2nd Floor • Topeka, Kansas 66612
(913) 357-6351 • FAX (913) 357-6352 • e-mail kcdaa01@ink.org
EXECUTIVE DIRECTOR, JAMES W. CLARK, CAE • CLE ADMINISTRATOR, DIANA C. STAFFORD

February 7, 1997

Federal & State Affairs Committee
Kansas Legislature
Topeka, Kansas

To the Members of this Committee:

As the President of the Kansas County & District Attorney's Association, I am here in opposition to Senate Bill 21, which authorizes the carrying of concealed handguns.

It is dangerous to believe that more guns on the street and concealed guns at that will make our society safer. More guns means more opportunities for people to use guns to vent their anger in a deadly fashion, without thinking about the lasting consequences. People who need to carry concealed weapons now because of the nature of their profession already have that right.

This bill also places a great burden on the KBI. The bill requires a criminal history check. The KBI is **not** fully computerized; there are thousands of convictions in criminal cases which are not in the computer. You are developing a system which is dependent on accurate information without knowing that the information is truly accurate. While the bill does limit liability, that is not the point. There is a very real risk that people the bill states are not eligible for licensure would be able to be licensed because the computer doesn't show any convictions. I am in no way denigrating the KBI. They do a tremendous job and are working extremely hard to get fully computerized. But they are not there and to place this burden on them at this point in time would be irresponsible.

There are other problems with this bill. It uses the wording "felony in the third degree" a phrase not used in our criminal code; it only prohibits concealed weapons at high school, collegiate or professional sporting events, apparantly authorizing bringing concealed guns to Little League baseball or city recreation commission baseball or softball games; it does not prohibit carrying concealed weapons in courthouses; in the definition of amusement park, the definition

apparantly only refers to Six Flags Over Texas and would apparantly not prohibit carrying concealed guns to the Kansas State Fair or county fairs where amusement rides are always featured.

In short, this is a dangerous piece of legislation which will not make any citizen safer and places more burdens on an already burdened and hardworking state agency.

Respectfully

Nanette L. Kemmerly-Weber

Nanette L. Kemmerly-Weber
Allen County Attorney
President, KCDAA

13-2

13-2

State of Kansas
Office of the Attorney General
301 S.W. 10TH AVENUE, TOPEKA 66612-1597

CARLA J. STOVALL
ATTORNEY GENERAL

MAIN PHONE: (913) 296-2215
CONSUMER PROTECTION: 296-3751
FAX: 296-6296

February 7, 1997

ATTORNEY GENERAL OPINION NO. 97-17

The Honorable Laura McClure
State Representative, 119th District
State Capitol, Room 278-W
Topeka, Kansas 66612

Re: Crimes and Punishments--Kanas Criminal Code; Prohibited Conduct--Crimes Against the Public Safety--Weapons Control; Criminal Use of Weapons; Concealed Weapons; Second Amendment to United States Constitution

Synopsis: The Kansas prohibition against carrying a concealed firearm except when on one's own land, abode or fixed place of business does not violate the second amendment to the United States constitution. Cited herein: K.S.A. 21-4201; L. 1867, ch. 12, § 1; L. 1903, ch. 216, § 1; R.S. 1923, § 21-2411; L. 1953, ch. 185, § 1; L. 1955, ch. 194, § 1; L. 1969, ch. 180, § 21-4201; U.S. Const., Amend. II.

* * *

Dear Representative McClure:

As representative for the 119th district you ask whether, under the federal constitution or the federal bill of rights, the citizens of Kansas currently have a right to carry a concealed weapon.

Kansas has a long history of prohibiting the carrying of a concealed weapon. As of 1867 Kansas law banned any person "not engaged in any legitimate business, any person under the influence of intoxicating drink, and any person who has ever borne arms against the Government of the United States" from carrying a deadly weapon. L. 1867, ch. 12, § 1.

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In 1903 the law was changed to prohibit any person who was not an officer of the law or his deputy from carrying a deadly weapon on one's person in a concealed manner. L. 1903, ch. 216, § 1. Although subsequent amendments were made in 1923 (R.S. 1923, § 21-2411), in 1953 (L. 1953, ch. 185, § 1) and in 1955 (L. 1955, ch. 194, § 1), the 1903 version remained essentially intact until Kansas adopted a comprehensive weapons control law in 1969 (L. 1969, ch. 180, § 21-4201 *et seq.)*. At that time prohibition of carrying a firearm concealed on one's person except when on one's land or abode or fixed place of business became the law of the state. L. 1969, ch. 180, § 21-4201(d). It remains illegal for any person to carry a concealed pistol, revolver or other firearm except when on one's own land, abode or fixed place of business. K.S.A. 21-4201(a)(4).

In effect you question whether the concealed firearm prohibition found at K.S.A. 21-4201(a)(4) violates the federal constitution or the federal bill of rights. Our discussion of your question will be limited to consideration of the second amendment to the United States constitution which provides:

> "A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed."

As aptly summarized in one of many law journal articles:

> "The meaning of this language has been extensively debated in light of what has aptly been termed 'The Great American Gun War.' Predictably, but unfortunately, the discussion has mirrored the terms, conditions and bitterness of that 'war.' Debate has been sharply polarized between those who claim that the amendment guarantees nothing to individuals, protects only the state's right to maintain organized military units, and thus poses no obstacle to gun control (the 'exclusively state's right' view), and those who claim that the amendment guarantees some sort of individual right to arms (the 'individual right' view)." Kates, Handgun Prohibition and the Original Meaning of the Second Amendment, 82 Mich. L.Rev. 204 (1983).

While popular understanding may well reflect the individual rights' view, with the exception of some early state court authority to the contrary [***Nunn v State***, 1 Ga. 243 (1846); ***English v. Texas***, 35 Tex. 473 (1871); ***State v. Workman***, 35 W.Va. (1891); ***Re Brickey***, 70 P. 609 (Id. 1902)], federal and state court decisions have consistently upheld the states' rights position.

The United States Supreme Court has issued very few decisions directly addressing the second amendment. In its earliest case, ***United States v. Cruikshank***, 92 U.S. 542, 23 L.Ed. 588 (1876), the Court held that the right of the people to keep and bear arms:

> "[i]s not a right granted by the constitution. Neither is it in any manner dependent upon that instrument for its existence. The second amendment

> declares that it shall not be infringed, but this, as has been seen, means no more than that it shall not be infringed by congress. This is one of the amendments that has no other effect than to restrict the powers of the national government, leaving the people to look for their protection against any violation by the fellow-citizens of the rights it recognizes to what is called in ***City of New York v. Miln***, 11 Pet. [102] 139, the 'powers which related to merely municipal legislation, or what was perhaps more properly called internal police' 'not surrendered or restrained' by the constitution of the United States." 92 U.S. at 553.

Ten years later the Court reiterated its position first announced in ***Cruikshank*** by stating "that the amendment is a limitation only upon the power of congress and the national government, and not upon that of the state." ***Presser v. State of Illinois***, 116 U.S. 252, 265, 6 S.Ct. 580, 584, 29 L.Ed. 615, 619 (1886). The Court further commented:

> "It is undoubtedly true that all citizens capable of bearing arms constitute the reserved military force or reserve militia of the United States as well as of the states, and, in view of this prerogative of the general government, as well as of its general powers, the states cannot, even laying the constitutional provision in question out of view, prohibit the people from keeping and bearing arms, so as to deprive the United States of their rightful resource for maintaining the public security, and disable the people from performing their duty to the general government." 116 U.S. at 265.

Fifty some years after ***Presser***, following Jack Miller's conviction of transporting a sawed-off shotgun in interstate commerce in violation of the national firearms act of 1934, the Court in ***U.S. v. Miller***, 307 U.S. 174, 59 S.Ct. 816, 83 L.Ed. 1206 (1939), again and for the last time to date, addressed the second amendment:

> "In the absence of any evidence tending to show that possession or use of a 'shotgun having a barrel of less than eighteen inches in length' at this time has some reasonable relationship to the preservation or efficiency of a well regulated militia, we cannot say that the Second Amendment guarantees the right to keep and bear such an instrument. Certainly it is not within judicial notice that this weapon is any part of the ordinary military equipment or that its use could contribute to the common defense." *Id.* at 178.

Placing this pronouncement in historical context, the Court went on to say:

> "The Constitution as originally adopted granted to the Congress power - 'To provide for the calling forth the Militia to execute the Laws of the Union, suppress Insurrections and repel Invasions; to provide for organizing, arming, and disciplining the Militia, and for governing such Part of them as may be employed in the Service of the United States, reserving to the States

> respectively, the Appointment of the Officers, and the Authority of training the Militia according to the discipline prescribed by Congress.' [Art. 1, § 8, cl. 15, 16.] With obvious purpose to assure the continuation and render possible the effectiveness of such forces the declaration and guarantee of the Second Amendment were made. It must be interpreted and applied with that end in view.
>
> "The Militia which the States were expected to maintain and train is set in contrast with Troops which they were forbidden to keep without the consent of Congress. The sentiment of the time strongly disfavored standing armies; the common view was that adequate defense of country and laws could be secured through the Militia - civilians primarily, soldiers on occasion.
>
> "The signification attributed to the term Militia appears from the debates in the Convention, the history and legislation of Colonies and States, and the writings of approved commentators. These show plainly enough that the Militia comprised all males physically capable of acting in concert for the common defense. 'A body of citizens enrolled for military discipline.' And further, that ordinarily when called for service these men were expected to appear bearing arms supplied by themselves and of the kind in common use at the time." *Id.* at 178-79.

Thus the Court in ***Miller*** definitively related the second amendment's right to keep and bear arms to the states' right to maintain a well regulated militia as opposed to any individual right to possess weapons such as a sawed-off shotgun. The Court subsequently cited ***Miller*** for the concept that "the Second Amendment guarantees no right to keep and bear a firearm that does not have 'some reasonable relationship to the preservation or efficiency of a well regulated militia.'" ***Lewis v. United States,*** 445 U.S. 55, 65, fn 8,100 S.Ct. 915, 925, 63 L.Ed.2d 198, 209 (1980).

While not bearing directly on your question, we acknowledge the related issue raised by the ***Miller*** decision of whether the second amendment precludes prohibiting the possession by individuals of weapons which do have "some reasonable relationship to the preservation or efficiency of a well regulated militia." We believe that the reasoning expressed in ***United States v. Hale***, *supra,* is controlling on this issue:

> "The Supreme Court has not addressed a Second Amendment issue since the ***Miller*** decision. ***Cases v. United States***, 131 F.2d 916 (1st Cir. 1942), *cert. denied*, 319 U.S. 770, 63 S.Ct. 1431, 87 L.Ed. 1718 (1943) remains one of the most illuminating circuit opinions on the subject of 'military' weapons and the Second Amendment. ***Cases*** states that 'under the Second Amendment, the federal government can limit the keeping and bearing of arms by a single individual, as well as by a group of individuals, but it cannot

> prohibit the possession or use of any weapon which has any reasonable relationship to the preservation or efficiency of a well-regulated militia.' *Id.* at 922. After carefully examining the principles and implications of the then recent ***Miller*** decision, the First Circuit concluded that the existence of any 'reasonable relationship to the preservation of a well regulated militia' was best determined from the facts of each individual case. *Id.* Thus, it is not sufficient to prove that the *weapon* in question was susceptible to military use. Indeed, as recognized in ***Cases***, most any lethal weapon has a potential military use. *Id.* Rather, the claimant of Second Amendment protection must prove that his or her *possession* of the weapon was reasonably related to a well regulated militia. Where such a claimant presented no evidence either that he was a member of a military organization or that his use of the weapon was 'in preparation for a military career', the Second Amendment did not protect the possession of the weapon. *Id.*
>
> "Since the ***Miller*** decision, no federal court has found any individual's possession of a military weapon to be 'reasonably related to a well regulated militia.' 'Technical' membership in a state militia (e.g., membership in an 'unorganized' state militia) or membership in a non-governmental military organization is not sufficient to satisfy the 'reasonable relationship' test. ***Oakes***, 564 F.2d at 387. Membership in a hypothetical or 'sedentary' militia is likewise insufficient. *See* ***Warin***, 530 F.2d 103." 978 F.2d at 1019-20. (Emphasis original.)

Federal circuit court decisions have uniformly cited ***Cruikshank, Presser***, and ***Miller*** as upholding the propositions that the second amendment is a limitation only on the power of the federal government as a protection for the states in the maintenance of their militia organizations against possible encroachments by the federal power, is not applicable to the states and thus is not a limitation on the power of the states, and is a guarantee of a collective right of the people to keep and bear arms rather than an individual right. *See* ***Cases v. United States***, 131 F.2d 916 (1st Cir. 1942); ***United States v. Kozerski***, 518 F.Supp. 1082 (D. N.H. 1982), aff'd 740 F.2d 952 (1st Cir. 1984); ***United States v. Tot***, 131 F.2d 548 (3rd Cir. 1942); ***Eckert v. City of Philadelphia***, 329 F.Supp. 845 (E.D. Pa. 1971), aff'd 477 F.2d 610 (3rd Cir. 1973); ***United States v. Johnson***, 497 F.2d 548 (4th Cir. 1974); ***Love v. Peppersack***, 47 F.3d 120 (4th Cir. 1995); ***United States v. Johnson***, 441 F.2d 1134 (5th Cir. 1971); ***United States v. Warin***, 530 F.2d 103 (6th Cir. 1976); ***Quilici v. Village of Morton Grove***, 532 F. Supp. 1169 (N.D. Ill., E.D. 1981), aff'd 695 F.2d 261 (7th Cir. 1982); ***United States v. Hale***, 976 F.2d 1016 (8th Cir. 1992); ***Fresno Rifle and Pistol Club, Inc. v. Van de Kamp***, 746 F. Supp. 1415 (E.d. Ca. 1990), aff'd 965 F.2d 723 (9th Cir. 1992); ***United States v. Oakes***, 564 F.2d 384 (10th Cir. 1977).

With the exception of the few decisions referenced previously, state court decisions addressing the second amendment have been in accord with federal court decisions in

holding that the second amendment is a limitation only on the power of congress and the national government, that it has not been incorporated into the fourteenth amendment and made applicable to the states, that it is not an individual but a collective right, and that it is not a right to keep and bear arms which do not have some reasonable relationship to the preservation or efficiency of a well regulated state organized militia. The state court cases cite varying combinations of ***Cruikshank***, ***Presser***, ***Miller*** as well as various federal circuit and district court cases referenced above. For a listing and summary of many of those cases see Annot., 37 A.L.R. Fed. 696 (1978).

It appears abundantly clear that state regulation concerning an individual's possession of concealed firearms is not precluded by the second amendment. In an early case the United State's Supreme Court recognized in dictum that "the right of the people to keep and bear arms (art. 2) is not infringed by laws prohibiting the carrying of concealed weapons." ***Robertson v. Baldwin***, 165 U.S. 275, 281, 17 S.Ct. 326, 329, 41 L.Ed. 715, 717 (1896), and more recently, as one federal district court succinctly summarized:

> "Having demonstrated, as we have, that the Second Amendment stays the hand of the National Government only, we conclude that the Constitution has left the question of gun control to the several states." ***Fresno Rifle and Pistol Club, Inc.***, 746 F. Supp. at 1419.

Cases which have specifically held that the second amendment does not prevent a state from prohibiting the carrying of concealed weapons include ***Pencak v. Concealed Weapon Licensing Board***, 872 F.Supp. 410 (E.D. Mich. 1994) (second amendment claim of deprivation of right to carry concealed weapon not viable); ***Jones v. City of Little Rock***, 862 S.W.2d 273 (Ark. 1993) (state may as matter of police power place appropriate restrictions on one's right to bear arms); ***Brown v. City of Chicago***, 250 N.E.2d 129 (Il. 1969) (regulation which does not impair the maintenance of the State's active, organized militia is not in violation of either the terms or the purposes of the second amendment); ***State v. Goodno***, 511 A.2d 456 (Me. 1986) (second amendment does not limit authority of state legislature, operates to restrict power of Congress only); and ***Moore v. Gallup***, 45 N.Y.S.2d 63 (N.Y. 1943) (second amendment limits exertion of power of congress and national government not state).

We conclude that the Kansas prohibition against carrying a concealed firearm on one's person except when on one's own land, abode or fixed place of business, as provided by K.S.A. 21-4201(a)(4), does not violate the second amendment to the United States

constitution. Thus, in response to your question, the second amendment to the United States constitution does not provide the citizens of Kansas with a right to carry a concealed weapon.

Very truly yours,

CARLA J. STOVALL
Attorney General for Kansas

Camille Nohe
Assistant Attorney General

CJS:JLM:CN:jm

STATE OF KANSAS

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Bill Graves
Governor

Gloria M. Timmer
Director

February 6, 1997

The Honorable Lana Oleen, Chairperson
Senate Committee on Federal and State Affairs
Statehouse, Room 136-N
Topeka, Kansas 66612

Dear Senator Oleen:

SUBJECT: Fiscal Note for SB 21 by Senator Hardenburger

In accordance with KSA 75-3715a, the following fiscal note concerning SB 21 is respectfully submitted to your committee.

SB 21 would allow persons who meet certain requirements to receive a permit to carry concealed weapons. The Kansas Bureau of Investigation (KBI) would be responsible for processing, issuing, or denying the applications. The initial license fee would not exceed $140 and the renewal fee would be set by the KBI based on the actual costs of renewing the license. Other fees, such as duplicate license or modification of a license, are set at $25 each. Receipts from these fees will be credited to the KBI's General Fees Fund, Concealed Handguns Account and are to be used for the sole purpose of covering the costs of the issuing of the licenses. Receipts in excess of those operational expenditures are to be transferred to the Attorney General's Crime Victims Compensation Fund. In order to receive a permit, the applicant has to (1) be at least 21 years old, (2) complete a weapons safety and training course approved by the KBI, (3) satisfactorily complete a background investigation, and (4) meet other criteria as determined by the KBI. The proposed bill also includes an appeal process, including a hearing, for those denied a permit or who have their permit revoked or suspended.

The background check required by SB 21 would require KBI personnel to review an applicant's background for such things as criminal history, mental stability, chemical dependency,

delinquency in child support payments, student loan history, and several other items. An applicant can de denied a license if any portion of the background check is reported unfavorably.

Estimated State Fiscal Impact				
	FY 1997 SGF	FY 1997 All Funds	FY 1998 SGF	FY 1998 All Funds
Revenue	--	--	--	--
Expenditure	--	--	$1,384,853	$1,384,853
FTE Pos.	--	--	--	42.0

The KBI has provided a detailed fiscal impact statement, estimating State General Fund expenditures of $1,384,853 in FY 1998. It is assumed that these costs would be financed from the State General Fund. Various departments and programs would need to be augmented in order to implement the provisions of SB 21. These augmentations include 2.0 positions in the legal department, 8.0 persons in the records division, 20.0 additional field agents to conduct the necessary background investigations, and other increases in human resources, firearms, the business office, and communications. The KBI also states that its data processing unit does not have sufficient resources to handle the programming. The agency would contract this out at a cost of $30,000. The total FTE positions requested by the KBI to implement SB 21 are 42.0. Salaries and wages for these new FTE positions total $1,250,378. The KBI also states that it would need an additional allocation of $134,475 for other operating expenditures. Of that other operating expenditure amount, $91,335 would represent one-time, start-up costs and $43,140 would be annual costs associated with the rental of additional office space.

The KBI has developed this estimate from data provided by the States of Florida, Texas, and Oklahoma. These states have passed similar laws. Also, the KBI has considered the number of calls the agency has received regarding concealed weapons. The KBI estimates that in the first year of implementing the bill's provisions, it will issue 20,000 licenses. For the two successive fiscal years, the number of licenses issued is estimated to be 15,000.

Once operational, the first year's (FY 1999) projected revenue would be $2.1 million. These are based on a fee of $140, $70 for indigence or if the applicant is over 60 years of age, multiplied by the number of applicants. Revenues for FY 1999 assume that 50.0 percent of the applicants would be eligible for the reduced licensing fee of $70. The KBI is estimating the number of licenses issued would drop to 15,000 for both FY 2000 and FY 2001. This would provide $1,575,000 for both fiscal years. The expenditure/revenue comparison is described in the table below:

	FY 1998	FY 1999	FY 2000	FY 2001
Expenditures	$ 1,384,853	$2,195,163	$2,127,384	$2,155,249
Revenues	--	2,100,000	1,575,000	1,575,000
Difference	($1,384,853)	($95,163)	($552,384)	($580,249)

According to the data supplied by the KBI, it would need funding above the amount generated by the licensing fee to comply with the provisions of SB 21. It is assumed that these additional dollars would be provided by the State General Fund. For FY 1998, the agency would need all of the costs of operating the program, $1,384,853. For FY 1999, FY 2000, and FY 2001, the KBI would need $95,163, $552,384, and $580,249, respectively, above the receipts from licensing fees to maintain the program.

All revenues and expenditures attributable to the passage of this bill are in addition to those included in *The FY 1998 Governor's Budget Report*.

Sincerely,

Gloria M. Timmer

Gloria M. Timmer
Director of the Budget

cc: Jerry Sloan, Judiciary
Marsha Pappen, KBI
Neil Woerman, Attorney General's Office
Walt Darling, KHP
Barbara Tombs, Sentencing Commission

Diana Chambers
6121 Halsey
Shawnee, KS 66216

I am here today to express my opposition to Senate Bill 1606. This bill would limit the rights of law-abiding citizens to defend themselves. Only a privileged few would be allowed to defend themselves. God-given rights of self-defense should not be interferred with through a popular vote and constitutional amendment.

I feel that Kansans, who are mentally stable and law abiding citizens, should have the option, if they desire, to carry a concealed firearm for self defense. I also feel that with the proper education, safety training, and a legal permit, we should be able to carry a concealed firearm no matter which city we live in. I believe we should consider Senate Bill #21 and also look at House Bill #2159.

I hope that you are aware of the study by Dr. Lott at the University of Chicago which was first released in the summer of 1996. It studied all the counties in the U.S. Let me mention some information Dr. Lott points out about this study. The states that allow their law-abiding citizens to carry a concealed firearm are enjoying a lower overall violent crime rate than those which don't. Murders have been reduced by 8.5%, rape by 5% and aggravated assaults by 7% and robbery by 3%. I the states which didn't have a right to carry law, they could have avoided approximately 1,570 murders, 4,177 rapes, and aggravated assaults by 60,000. While these numbers may not seem large to you, if your wife, mother, daughter, sister or niece, became one of these numbers, then they would no longer be numbers, but would be a very real painful part of your life. Wouldn't you want them to have the choice to be able to level the playing field and have the ability to protect themselves? The Lott study provides accurate data that supports the benefits of firearm ownership and giving citizens the right to carry them concealed. Allowing them to do so deters violent crime.

I deliver the Kansas City Star to commercial boxes and businesses in the very early hours of the morning. I deliver to boxes in the middle of Overland Park, supposedly a safe neighborhood. About 8 weeks ago two women were abducted from the apartment complex that I deliver to. I can't help but feel this might have been averted if they'd had the right to defend themselves. I feel very vulnerable at 4:00 am getting in and out of my vehicle, and would like to have a permit to carry a firearm.

I believe that a popular vote on our constitutional right to keep and bear arms is wrong. We are only one of a few states who do not have the legal right to carry a concealed firearm. I feel this is like the Occupational Safety and Health Act for the criminals. Making sure they have a safe environment in which to work. Law abiding Kansans should have the right to carry a concealed firearm, if they desire, to protect themselves and their families.

Thank you.

Sen. Federal & State Affairs Comm.
Date: 2-10-99
Attachment: #16

Testimony of Constable R.L. Skinner
Dallas County, Texas
Senate Federal and State Affairs Committee
February 10, 1997

I have been a Dallas County, Texas Constable since 1985. I was in municipal law enforcement prior to becoming a constable. When right-to-carry legislation was proposed in 1995 in Texas, I took the opportunity to express my support for the right of law-abiding citizens to carry concealed for the self-defense of themselves and their families. As a law enforcement officer it has always been clear to me that I have nothing to fear from law-abiding citizens who wish to take responsibility for their own personal safety. In fact, as a law enforcement officer I can not possibly be available when a citizen may be in danger.

Fortunately, the Texas legislature understood that law-abiding citizens deserved the right to defend themselves outside of their homes. The Texas law went into effect on January 1, 1996. As I anticipated there have been no problems as a result of allowing law-abiding citizens after a background check and training to carry a firearm concealed for self-defense. I have heard other officers from across the country comment on the success of right-to-carry:

IN FLORIDA:

"From a law enforcement perspective, the licensing process has not resulted in problems in the community from people arming themselves with concealed weapons." (Commissioner James T. Moore, FL Dept. of Law Enforcement, memo to Governor dated March 15, 1995)

"FDLE says crime in Florida is down." (Headline, Florida Times Union, October 4, 1995) "Encouraging news." Tim Moore, FDLE Commissioner, Florida Times Union, October 4, 1995)

IN VIRGINIA:

"Virginia has not turned into Dodge City. We have not seen a problem." (Public Safety Secretary Jerry Kilgore, Freelance Star, Fredericksburg, VA February 2, 1996)

"Gun permit law hasn't raised crime. State: Permit-holders unlikely to be arrested." (Headline Freelance Star, Fredericksburg, VA, February 2, 1996)

AND IN MY NATIVE TEXAS:

Sheriff David Williams, Tarrant County, Texas, Ft. Worth Star Telegram, July 17, 1996

"As we have seen in other states and had predicted would occur in Texas, all the fears of the naysayers have not come to fruition. A lot of the critics argued that the law-abiding citizens couldn't be trusted, nor were they responsible enough to avoid shooting a stranger

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over a minor traffic dispute. But the facts do speak for themselves. Non of these horror stories have materialized."

Col. James Wilson, Director of the Texas Department of Public Safety, Dallas Morning News, June 11, 1996.

"So far, it has impressed me how remarkably responsible the permit holders have been."

And even some of the most anti-self-defense press in Texas has now recanted their criticisms of right-to-carry.

Austin American Statesman, Sunday February 2, 1997, "Shootout in Mild West"
"People and local governments have reason to be concerned about gun violence, but they should realize that license holders aren't contributing to violence."

Thank you for the opportunity to speak today and I urge the Committee to support the right of law-abiding Kansas citizens to defend themselves and their families outside their homes. Kansas remains one of only seven states that does not allow their citizens the right to self-defense.

STATISTICS AS OF SEPTEMBER, 1996:

HANDGUN LICENSE DATA	TOTAL
Application Request Cards Received	285,031
Applications Mailed to Citizens	287,467
Completed Applications Received at DPS	105,265
Licenses Issued	99,992
Licenses Denied	845

HANDGUN INSTRUCTOR CERTIFICATION DATA	TOTAL
Instructor Applications Mailed to Citizens	12,474
Instructor Applications Received at DPS	3,146
Citizens Trained and Certified as Instructors	2,645

Testimony before the Kansas Legislature
February 10, 1997
Sheriff Howard L. Sellers
Aiken County, South Carolina

INTRODUCTION

Gentlemen, thank you for the opportunity to address this important issue. I am acutely aware that you may not appreciate someone from another state commenting publicly on your business, and if I didn't feel strongly on this issue, I would not presume to do so. We have a saying in South Carolina: Don't tell me how you did it up North!

Let me share with you my perspective. Prior to my law enforcement career, I was assistant Professor of Psychology at St. John's University in Minnesota. This week, I will celebrate my 26th year as a sworn law enforcement officer. My public career began with the FBI, as an Agent and Agent Supervisor, and includes service at the federal, state, and local level. Currently, I am honored to serve the 135,000 citizens of Aiken County as their elected Sheriff. I recall that in the early 1970's I worked briefly out of the Manhattan FBI Resident Agency on a case involving corruption of public officials.

I am testifying in support of responsible concealed carry legislation. I believe that there are 3 major issues related to this legislation:

1. The first issue is: THE FACTUAL REDUCTION OF CRIMINAL VICTIMIZATION IN VIOLENT CRIME

The objective analysis of the experience of states that have enacted similar legislation leads to only one conclusion: Armed citizens

prevent crime. Any conclusion otherwise in the face of the empirical data is intellectually dishonest.

A citizen with a gun is not an easy victim: without victims, you have fewer predators. Concealed carry makes the choice of a victim more risky to a predator. The known presence of a gun also prevents violence. Law enforcement officials are aware of many instances where predatory criminals retreated when confronted by a gun in the hands of intended victims.

The reductions in violent crime demonstrated in responsible (not necessarily politically correct) research on concealed carry reveal that <u>all</u> citizens benefit from lower violent crime rates when criminals cannot pick unarmed victims at random.

2. The second issue is: THE POTENTIAL MISUSE OF LICENSED CONCEALED WEAPONS

I have talked to many citizens who are opposed to legalizing concealed carry. The most common arguments are based on the person's feelings about guns in general, and their distaste for increasing the number of guns in public when they themselves do not choose to be armed. These feelings run deep, and should not be dismissed out-of-hand, but rather analyzed in the light of facts that are abundantly available to demonstrate the safety of allowing honest citizens to exercise their right to self-defense in the manner of their choosing.

It is demonstrable that guns carried under permit are not likely to be misused. The percentage of misuse is so small that the effect is negligible compared to the crime prevented.

My experience with the South Carolina law has been extremely positive. One of the reasons I supported the law in our legislature is that it required training in the law of self-defense, making permit holders aware of the responsibilities and liabilities associated with gun use. Honest citizens do not confuse a license to carry with a license to use. I hope that your law would require adequate education on the responsibilities, liabilities and constraints on the use of deadly force by citizens.

A little known fact is that citizens make fewer shooting mistakes of identity against assailants, percentage wise, than police. They are there when the predator strikes, and the police are not. Identification is positive!

We welcome the help from responsible armed citizens. Most law enforcement officers of my acquaintance believe in the right of citizens to be safe, and consider responsible armed citizens to be allies in the fight for safer communities. We know that we cannot be everywhere, but we want criminals to fail!

3. The third issue is: THE RIGHT OF HONEST CITIZENS TO PROTECT THEMSELVES

You cannot remove guns, deadly force, from the hands of predatory criminals with law, but with an ill-advised law, you can remove the means of self defense from their potential victims. There are already guns being carried illegally on the streets; legal concealed carry would advantage the potential victims. The very people who are physically weaker and most vulnerable to violent criminal attack are the ones disproportionally disadvantaged by not being able to choose an appropriate means of self-defense.

Like you, As an elected official, I am necessarily close to the opinions of my citizens, and am aware of the responsibility to exercise leadership in their best interest. I would not take on a controversial issue like this except out of a profound conviction that people are safer when they have the option of self defense.

SUMMARY

I believe that a well-written concealed carry law is in the interest of all our citizens. It will reduce predatory crime, will respect the constitutional basis of gun use in self-protection, and demonstrate respect for the ability, judgment, and personal and property rights of citizens who choose to exercise them.

I recognize and respect your determination to act in the best interest of your citizens, and the caution with which you are dealing with this issue. I urge you to report out this legislation favorably, and tell your constituents that you respect their ability to exercise constraint and sound judgment.

Thank you for your patient attention and courtesy. If I can be of any service, or answer any questions for you, please don't hesitate to ask.

Kansas Bureau of Investigation

Larry Welch
Director

Carla J. Stovall
Attorney General

January 29, 1997

Gloria Timmer, Director
Division of Budget
Capitol Building
300 SW 10th, Room 152-E
Topeka, Kansas 66612
Fax #913-296-0231

RE: Fiscal Note for Senate Bill 21

Attn: Jeff Bridges

I. ANALYSIS OF PROPOSED LEGISLATION

SB 21 provides for the implementation of a licensure process to issue permits to carry concealed weapons. The bill allows the issuance of such license for four year periods of time and the renewal thereafter. The bill sets forth certain requirements which must be satisfied at the time of the application.

The Kansas Bureau of Investigation (KBI) will administer the act and be responsible for processing, investigating, issuing and denying the applications. The bill requires background checks to investigate the applicants criminal history, child support payments, student loan payments, tax status, pending restraining orders and commitments for mental illness or chemical dependency. The initial license fee is $140. This fee is reduced for indigency, a person 60 years of age or older, for retired law enforcement and judicial officers.

The bill also requires the applicant to complete a firearms course. The KBI would be required to provide a firearms training course for firearms trainers.

Due to the complexity of the bill, implementing this program would necessitate delaying the effective date until July 1, 1998. The KBI will be requesting state general fund money to allow for start-up costs.

II. HOW SENATE BILL 21 IMPACTS KBI OPERATIONS

SB 21 will impact the following areas at the KBI:

1. The legal division would have the responsibility for administration of the concealed firearms permits. Two positions needed are: an Attorney I to review the applications for compliance with the statute, conduct administrative hearings and develop rules and regulations; and a Secretary III to assist the attorney, process applications and receive licensing fees.

1620 S.W. Tyler / Topeka, Kansas 66612-1837 / (913) 296-8200 FAX

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2. The records section at the KBI would be utilized to conduct record checks. For the estimated number of record checks, the records division would require additional staff of eight persons. Two office specialists are needed to process the fingerprint cards. Additionally, six office assistants are necessary to compile the files.

3. Data processing does not have the staff to do the programming. The programming would be contracted out at an estimated cost of $30,000.

4. The KBI does not have sufficient agents in the field to investigate applicants for concealed carry permits. It is not necessary for such investigations to be conducted by sworn officers. Special Investigators will be necessary to conduct these background investigations. The amount of time needed to investigate each application will vary, but estimates range from a minimum of four hours to twenty-four hours. While some of the work can be done by phone, travel will be required.

5. The communications section will be utilized to conduct initial record checks and provide notification to sheriffs regarding address changes.

6. Two office assistants will be needed to type the reports generated by the Special Investigators.

7. Our firearms training is not staffed sufficiently to provide for civilian training. Two Special Agent II's would be needed to conduct the training and devise the training course.

8. Due to the increase in staff, Human Resources and the Business Office need additional staff.

III. EXPENDITURES REQUIRED TO IMPLEMENT SENATE BILL 21

SB 21 will have a significant impact on the KBI even with the following requested positions. If SB 21 were implemented, new positions would be necessary to support the program. These positions may not be sufficient to meet demand. It may be necessary to hire temporary employees for the first year. These positions are as follows:

Position	Number of Positions	Range	Salary (with benefits)
Special Agent IV	1	30	$ 46,189.16
Attorney I	1	28	42,357.75
Special Agent II	2	26	38,760.05
Secretary III	1	17	26,271.27
Special Investigator II	2	24	34,969.64
Special Investigator I	20	22	32,523.84
Office Specialist (Records)	2	18	26,873.22
Office Assistant IV (Business Office)	1	15	23,634.64
Office Assistant III (6 Records, 1 Human Resources)	7	13	21,719.87
Office Assistant I	2	9	18,422.20
LETT I	3	15	23,634.64
Total Positions	**42**		

The first year cost for printing applications, statutes and licenses for 50,000 requests is estimated at $200,000. The cost for postage is estimated at $100,000. The cost for office set up will vary depending on the number of investigators hired and where they are assigned. The KBI has no office space in which to house the staff to administer the act. Therefore, office space in Topeka must be used.

The concealed carry bill is funded by a license fee of $140. This fee can be reduced for indigency or if the applicant is 60 or more years of age. This fund is to be utilized for implementing and administering the act. Any excess funds go the Crime Victims Compensation Fund.

IV. ASSUMPTIONS USED TO DEVELOP COST ESTIMATE

In part, the assumptions relied upon to develop the cost estimate is based on the number of phone calls the KBI receives regarding concealed carry permits. Additionally, the KBI contacted the Texas Department of Public Safety and the Oklahoma Bureau of Investigation. Texas underestimated by at least half, the number of applications returned. Both states indicated they were overwhelmed by the number of applications received. The following statistics were used to estimate the number of applications sent and received for Kansas.

State	1st Year Time Frame	Applications Mailed	Applications Returned
Oklahoma	01/01/96-12/31/96	65,000	17,000
Texas	09/01/95-09/01/96	308,000	118,000
Florida	10/01/87-10/01/88	121,286	36,752

Information received from Oklahoma and Texas indicates the majority of concealed carry applicants are 60 years of age or older. Therefore, it is reasonable to assume that approximately 50% of the applicants will pay the reduced fee of $70. Revenue for the first year is estimated to be:

10,000 applicants x $140 =	$1,400,000
10,000 applicants x 70 =	700,000
Total Revenue	**$2,100,000**

The KBI cannot absorb in its current budget the initial and continuing cost associated with the implementation of SB 21. Processing applications for licensure is time consuming and detailed work. All applications must be reviewed for approval. Administrative hearings would be necessary for those persons who appeal denial, suspension or revocation of the permit. It is difficult to estimate the number of applications processed the first year. However, in calendar year 1995 the FBI received 28,629 requests for records for the purchase of handguns under the Brady Bill in Kansas. This number does not reflect the number of persons who already own handguns and desire to carry them concealed. It also does not cover those sales of handguns not subject to Brady Bill record checks. A conservative estimate of the number of people applying for concealed carry is 20,000 for the first year. The number of requests for applicant packets is estimated at 50,000.

V. STAFFING

This bill will have significant impact on the KBI. The background check which is required is extensive and will require a coordinated effort between several of our departments.

SALARY PROJECTIONS
(with benefits)

Position	FY 98	FY 99	FY 2000
Special Agent IV	46,189.16	48,051.00	49,167.01
Attorney I	42,357.75	44,113.40	45,132.30
Special Agent II (2)	38,760.05	40,307.60	41,231.93
Secretary III	26,271.27	27,408.17	28,024.25
Special Investigator II (2)	34,969.64 (69,939.28)	36,410.92 (72,821.84)	37,263.95 (74,525.10)
Special Investigator I (20)	32,523.84 (650,476.80)	33,924.40 (678,488.00)	34,682.65 (693,653.00)
Office Specialist (2) (Records)	26,873.22 (53,746.44)	28,022.76 (56,045.52)	28,638.84 (57,277.68)
Office Assistant IV (1) (Business Office)	23,634.64	24,658.02	25,203.01
Office Assistant III (7) (6 Records, 1 Human Resources)	21,719.87 (152,039.09)	22,915.00 (159,005.00)	23,165.21 (162,156.47)
Office Assistant I (2) (Typing Pool)	18,422.20 (36,844.20)	19,255.48 (38,510.96)	19,634.60 (39,269.20)
LETT I (3)	23,634.64 (70,903.92)	24,658.02 (73,974.06)	25,203.01 (75,609.03)
Total	**$ 1,211,162.60**	**$ 1,263,383.57**	**$ 1,291,248.98**

Salary increases are based on 2.5% increase per year.

VI. LONG RANGE FISCAL EFFECT

EQUIPMENT/SUPPLIES

	Individual	Total
Book shelf (10)	201.00	2,010.00
4 drawer cabinet (20)	183.20	3,664.00
Desk (30)	510.00	15,300.00
Work table (4)	420.00	1,680.00
Chair (30)	327.00	9,810.00
X-stations with printers (2)	4,200.00	7,200.00
Security alarms	1,464.00	1,464.00
Lap top computer	3,328.00	3,328.00
Printer	361.00	361.00
PC system (Secretary & Business)(2)	2,595.00	5,190.00
Printer/software (2)	1,800.00	3,600.00
Calculators (2)	130.00	260.00
Typewriter (Secretary)	495.00	495.00
Legal manuals	500.00	500.00
Misc. supplies	1,000.00	1,000.00
Fax	1,108.00	1,108.00
Phone system	4,365.00	4,365.00
Programming	30,000.00	30,000.00
Total		**$91,335.00**

ANNUAL EXPENSE

	Monthly	Annually
Copier	375.00	4,500.00
Office space 2,000 sq. ft. x $12 ft =		24,000.00
Utilities	1,000.00	12,000.00
Phone Service	220.00	2,640.00
Total		**$43,140.00**

See Attachment A

When an applicant is entitled to an administrative hearing, a hearing officer and court reporter must be utilized. It is estimated that with travel, per diem and fees, each hearing will cost $1,000. The number of hearings a year is estimated to be 20.

The KBI does not have a shooting range and will not be able to use a police range. A private gun club would be utilized at approximately $500 per day.

OOE is the annual cost to provide travel, per diem, training, equipment and a state vehicle. For investigators this amount is $7,000; for agents it is $10,000. The cost to lease a state vehicle for FY 98 and 99 is $240, per month, $2,880 annually, per request, which is included in the amounts above.

Postage and printing includes the cost of mailing and printing the initial request form, the application, the duplicate license form, the modified application form, the renewal form and the instructor application form. Postage and printing are based on costs associated with administering the Private Detective Licensing Act.

If the KBI relocates to a larger building, the cost for office space will be eliminated. It is assumed five Special Investigators each will go to the Wichita, Overland Park and Great Bend Offices. There will be a cost associated with the expansion or remodeling of these offices with the addition of these investigators.

Respectfully submitted,

Larry Welch
Director

LW:ld
CC: Paul West

ATTACHMENT A

EXPENDITURES

FY	No. Requests	App. Postage	Printing	Admin. Hearings	Salaries	OOE	FBI Fee Record Check	Investigator OOE	Totals
1999*	50,000	$100,000	$200,000	$ 20,000	$1,211,162.60	$30,000	$480,000	$154,000	$2,195,162.60
2000	50,000	100,000	200,000	20,000	1,263,383.57	30,000	360,000	154,000	2,127,383.57
2001	50,000	100,000	200,000	20,000	1,291.248.98	30,000	360,000	154,000	2,155,248.98

* with an implementation date of July 1, 1998, based upon 20,000 applications returned.

FIRST YEAR COST

Equipment/Supplies	Expenditures	Annual Expense	Total
$ 91,335	$2,195.162.60	$ 43,140.00	$2,329,637.60

PROJECTED REVENUE

FY	No. Applications	Projected Revenue
1999*	20,000	$ 2,100,000
2000	15,000	1,575,000
2001	15,000	1,575.000

*These amounts are based upon the assumption that half of the applicants will receive a reduced application fee.

Note: It is difficult to develop a projected trend in application submissions. Florida initially experienced a decrease in submissions, then an overwhelming increase.

19-8

	Texas	Oklahoma	Iowa	Florida
Year Implemented	Eff. 9/1/95 First license issued 1/1/96	Eff. 1/1/96	Eff. 1979	Eff. 10/1/87
Year 1 Applications Received	101,254	16,967	Unknown	36,752
Year 1 Applications Approved	92,935	15,081	Unknown	33,451
Year 2 Applications Received	23,826	30 a day (est. 7,800 per year)	Unknown	17,884
Year 2 Applications Approved	27,257	Year not complete	Unknown	17,884
Extent of Background Check	Extensive investigation; Parallels SB 21	Criminal history records checks by fingerprint submissions through FBI; local inquiries by sheriff	Record check & local inquiries by sheriff	Criminal history record check
Projected Year 1	76,632	24,000	22,000	130,000
Projected Year 2	76,747	No projection	Unknown	Not available
Primary Agency Responsible	Texas Dept. Public Safety	Oklahoma State Bureau of Investigation	99 Sheriffs	Florida Department of State
Number of New Employees	39 (does not include Texas Highway Patrol or records*	20 1/2 time A.A.G.	4 support staff at Iowa DPS	60
Estimated Cost	Unknown	$1.4 million +	NA	$3.4 million
Fee Charged	$140 w/o special conditions (4 years)**	$100 to OSBI $25 to sheriff (4 years)	$10 per new permit of which $2 goes to DPS $5 per renewal of which $1 goes to DPS	$117 (3 years)
Does Fee Cover all Costs?	Unknown	Yes	Yes	Yes

\+ *Figure includes salaries, FBI costs, rent, printing, postage, communication and attorney costs*

* *Pay for 2 hours time per investigation and mileage for Texas Highway Patrol*

** *Special conditions are reduced fees for indigency, senior citizen, retired police officer, judicial officer or felony prosecutor.*

6-6/

Office of The
DISTRICT ATTORNEY
Of The 29th Judicial District of Kansas
Wyandotte County Justice Complex
710 N. 7th Kansas City, Kansas 66101
(913) 573-2851
Fax (913) 573-2948

DISTRICT ATTORNEY
Nick A. Tomasic

February 3, 1997

Senator Lana Oleen
Chairperson
Senate Federal & State
Affairs Committee
300 SW 10th Avenue, Room 136-N
Topeka, Kansas 66612-1504

RE: *Concealed Weapons Bill*

Dear Senator Oleen:

I have been the District Attorney for Wyandotte County, Kansas since January of 1973, and prior to that I was an Assistant County Attorney for six years. In those thirty years, I have had the opportunity to examine thousands of cases involving the use of handguns by both trained law enforcement personnel and non-trained persons.

I have seen a number cases involving shootings where the person who did the shooting would have qualified for a license under this bill. They were twenty-years of age, of sound mind, not a substance abuser, nor a prior felon, did not owe child support, nor where they subject to a domestic abuse order, and they were not delinquent on a student loan. These persons were charged and convicted of felonies as high as First Degree Murder.

In many of the cases, I believe that the killing would not have occurred if the gun was not easily accessible. A person now is legally authorized to carry any pistol or revolver or other firearm concealed or not when on the person's land, abode, or fixed place of business. *K.S.A. 21-4201.*

I do not understand the logic in New Section 37(a). This section makes it a crime to intentionally fail to conceal the handgun.

(1) How is that going to deter criminal activity?

(2) Why does the gun need to be concealed if you are authorizing the carrying of the gun under a license?

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Under New Section 37(b):

(1) How do the licensees know if a restaurant does 51% or more of its business from alcohol sales?

(2) How are the sporting events, the churches, amusement parks, hospitals, schools, nursing homes to police this section?

(3) Who will pay the added expenses?

This law places a heavy burden on the Kansas Bureau of Investigation. Who will pay for this added expense? License fees have never worked in the past despite good intentional promises.

How will you determine who is a chemical dependent or an alcohol dependent person? This bill will take the applicant's word. We all know of people who drink too much and who deny they have a problem. Intoxication as a defense is used frequently in our cases.

New Section 30:

Active judicial officers seem to get a special treatment. They are not required to attend the classroom instruction section. The active or retired judicial officers should not be treated any differently than any other citizen. Because they are a judge does not mean they know how and when to use a weapon. There is a case on point.

The minimum number of hours (10) for handgun proficiency is not adequate. Then to provide that the minimum classroom proficiency is not applicable to judges is asking for trouble.

The liability aspect also is a problem. New Section 15 absolves the State agencies and instructors from liability unless their acts were "capricious or arbitrary."

I can foresee lawsuits filed alleging improper training when a licensee does not follow the proper procedures in discharging a firearm.

There is no requirement for a psychiatric examination to determine if an applicant is a suitable candidate to possess and carry a weapon. This is standard for almost all law enforcement agencies. This may sound trite, but there is a great difference between knowing how to shoot a gun, and when to shoot a gun.

One final question: *is there any valid reason for this bill to be enacted?*

Yours truly,

Nick A. Tomasic

NICK A. TOMASIC
District Attorney

NAT:lkf

Testimony

Senate Bill #21

Proposed Concealed Weapons Law

February 10, 1997

Dennis Domer

Baldwin, Kansas

Thank you, Senators, for giving me the privilege to testify today.

My name is Dennis Domer, and my current Kansas home is in Baldwin. I am the Associate Dean of the School of Architecture and Urban Design and Associate Professor of American Studies at the University of Kansas. However, I represent only myself, not the University of Kansas in this testimony.

I know a lot about guns, and I'll tell you why. I was born in Seneca and grew up in Centralia, the son of a banker-farmer. My father gave me my first rifle when I was 11 years old, just as his father had done when he was 11. As a boy I hunted every inch of Nemaha County. By the time I went into the Air Force in 1968, I was good with any gun. I was so good on the rifle range that I was assigned to guard Class A nuclear weapons targeted at the Soviet Union. The Air Force considered me deadly with the M-16, 38 Special, and the Riot-gun, and I was. In my garage today I have stacked a full set of *American Rifleman Magazine* from 1945 to the present, a gift from my father who has been a member of the National Rifle Association for more than 50 years.

Knowing all this, you'd have to conclude that I've been around guns all my life.

I have been involved in college teaching for the last 25 years. The last 21 of those years have been at the University of Kansas. I have been a dean during all that time as well. It's been a truly wonderful experience. My job along with a lot of great people at KU has been to prepare students for leadership positions in the professions, in my case architecture, architectural engineering and urban planning. During these 21 years I've seen some fabulous students, and I can tell you without a shadow of a doubt that the future is in very good hands.

However, I shudder to think of concealed weapons or weapons of any kind in lecture halls, in the libraries, in design studios, or any place else on the campus. Weapons are against everything we are trying to teach at the university. Weapons in the classroom would suggest that we had given up on our fundamental task to demonstrate the values of a humane and democratic society to every new generation of students. Weapons at the university would suggest that our society lives by the sword, a thought repulsive to even the hardest among us. Since the days of Plato's Academy, the university has been and must be a place of dispute, a place where people learn how to disagree in a civil manner, where people argue about very important things. Emotions run high among young people under pressure at the university, where stress and fatigue are reality, and where careers are on the line among non-traditional students with families. Guns don't fit into the equation at any educational institution, of that I am certain.

All of us have read about tragedies at the university in which someone has killed with a gun. This has not happened to my knowledge where I work, but if it did, not one person in ten could prevent it from happening with a legal, concealed weapon. The limited training required for permission to carry a concealed weapon is not enough to insure an effective defense or offense with a gun under most circumstances. Most people with concealed weapons have just enough training to be very dangerous to themselves and other innocent people. Further, most people have never shot or killed anything before, and many people cannot do it. Even with the gun skills I have, I'm not sure I could shoot and possibly kill a student down the hallway who decided to conclude matters with a gun. It would be a dangerous job, and we don't train deans and professors to do this. So I think it is an illusion to suggest that carrying concealed weapons will somehow improve our safety at the university. It will not. Things would only get dangerous.

For the same reasons you do not want concealed weapons in the State Capitol, I do not want concealed weapons at the university. In my opinion, most people I work with would agree with me. We can't have guns in Allen Fieldhouse when Missouri comes to town.

OFFICE of the SHERIFF
MICHAEL S. DAILEY, SHERIFF
WYANDOTTE COUNTY
710 NORTH 7TH STREET
KANSAS CITY, KANSAS 66101

MICHAEL S. DAILEY
SHERIFF

January 31, 1997

Senator Lana O'Leen
Chairperson of Senate Federal & State
State Capital Building
Topeka, Kansas 66612

Dear Senator O'Leen:

As Sheriff of Wyandotte County, I oppose Senate Bill 21, as it is written. This proposed bill preempts a city from enforcing "concealed carry" ordinances now on their books. Senate Bill 21 also does not allow a city or county the right to create such an ordinance or resolution prohibiting concealed weapons. There would be something seriously wrong with a law that allows a business owner to bar concealed weapons from his/her premises, but does not allow a city to bar such a practice within their corporate limits.

I also oppose Senate Bill 21 because it is not being properly funded. Further, Senate Bill 21 places a greater burden on the Kansas Bureau of Investigation and on county sheriffs. Personnel would have to be increased just to handle the volume of request for permits generated by this Bill. It is difficult enough for this office to dedicate personnel to handle the "Brady Bill," now with the new "Brady Bill" amendments, due to go into effect, our ability to conduct other business will be impaired.

Yours sincerely,

Michael S. Dailey
Sheriff

MSD/waj

Sen. Federal & State Affairs Comm.
Date: 2-10-97
Attachment: #22

Testimony before the Senate Committee considering two bills dealing with Kansas statutes on concealed weapons. 2/10/97

My name is Elizabeth C. Baehner. I am a licensed master of social work, and a prevention professional. I direct the Regional Prevention Center serving Johnson, Leavenworth and Miami counties, and currently serve as president of the Regional Prevention Center Directors' Association. The thirteen Kansas RPCs contract with KS SRS/ADAS' managed care provider to provide prevention planning expertise, and services designed to improve outcomes for young people in Kansas, including the reduction of substance abuse, delinquency and youth violence.

The Position: I am here to express strong opposition to the passage of a concealed handgun bill, with or without public debate. However, the reality that two bills are under consideration leads me to urge a public debate and vote on this important issue.

My opposition is based on research into the risk factors that are linked to increases in substance abuse, delinquency and violence. These problems must be viewed systemically. Substance abuse, delinquency and violence have common risks that contribute to their existence. These risks are known. They can be reduced, if we are willing to seek long term solutions and not react with fear and shortsightedness to the very real problems with crime and youth violence that we face as a state.

The Problem: The Center for Disease Control and Prevention states that

- Young people in America are 12 times more likely to die by gunfire than their counterparts in the rest of the industrialized world.
- Gun deaths are part of an overall surge in murders and suicides among the nation's youth.
- American children are five times more likely to be killed than those in the rest of the industrialized world.
- The homicide rate by firearms is 1.66 out of every 100,000 American children, compared with .14 in the other industrialized nations.
- Young people in America are twice as likely to commit suicide, at .55 per 100,000, compared to .27 for the other industrialized nations.
- In the US, about 16,000 to 17,000 students carry a handgun to school on any given day. (Florida State University)
- Experts say that the primary cause for the proliferation of violence may be the proliferation of handguns.

We must not, I believe, adopt simplistic, uni-causal solutions like increasing the number of weapons as a means to contain crime. Particularly not concealed weapons. Consider the message to our children, who already use violence against others and against themselves at too high rates. Passage of such a law indicates that ours is a society so dangerous that citizens must defend themselves with concealed weapons.

The Risk Reduction Framework; a Means to Reduce the Problem: Prevention and Juvenile Justice professionals know that availability of firearms, and community standards that accept and promote firearms as acceptable are risk factors for delinquency, youth violence and crime.

2/10/97 Testimony by Elizabeth Baehner, Regional Prevention Center of Johnson, Leavenworth and Miami counties, opposing passage of a concealed weapon bill, continued.

Risk Reduction Strategy continued: We must address the risks that cause these negative behaviors with multiple, interrelated strategies to change the behaviors and environmental conditions that correlate to them. And we know what many of these strategies look like.

Kansas has been in the forefront in the nation to recognize that problems like violence, delinquency and substance abuse are linked by common risk factors. KS SRS/Alcohol and Drug Abuse Services has adopted this systemic, research based way to view youth health and behavior problems. As a result, KS became one of six states in the nation to pilot the Risk and Protective Framework developed by Drs. David Hawkins and Richard Catalano.

The basic premise of the framework is to identify those factors that put youths at risk for developing interrelated health and behavior problems, including violence, delinquency, substance abuse, school drop out and teen pregnancy. Drs. Hawkins and Catalano have extensive backgrounds in Juvenile Justice. Their model has been adopted at the federal level to organize OJJDP grants and contracts to the states. Kansas will be utilizing risk reduction/protective building framework to manage juvenile justice under the Kansas Youth Authority.

This issue of concealed weapons is an example of the systemic way in which decisions interact to put communities and young people at greater risk. Two of the primary risk factors for violence and delinquency are:

- Availability of Firearms, actual and perceived availability; and
- Community Laws and Norms Favorable towards Drug Use, Firearms and Crime.

Prevention research over the past thirty years has amassed knowledge that indicates perceived availability is as great a risk as actual availability. Community standards that permit and favor citizens handling threats with a concealed weapon set a clear, negative community standard for young people. Availability is obviously increased. I urge you to educate yourselves on the far reaching implications of such a decision.

Mayor Emanuel Cleaver of Kansas City provided a moving and chilling picture of the way in which our society has ignored encroaching, expanding crime. We have come to expect it. We have not attended to its root causes.

Passage of a concealed hand gun bill takes a stand which states our systems have failed, and people need to arm themselves to handle the situation. Clearly, this send a message to our young people. It is not a positive message. It legitimizes force, and sets a community standard that is accepting of firearms, of the use of force. It does not address known risks with identified reduction strategies.

The message that we are out of control, and need to take the law into our own hands. This is not the message to send to young people.

TESTIMONY OF SYLVIA FOULKES ON SB0021
FEDERAL AND STATE AFFAIRS COMMITTEE
KANSAS SENATE
FEBRUARY 10, 1997

Thank you Mr. Chairman, ladies and gentlemen, for letting me speak today on an issue of great importance to all Kansans. My name is Sylvia Foulkes and I am a resident of Olathe, Kansas. I'm speaking here today in support of SB0021, The Right to Self-Protection Bill. I have the unenviable distinction of being a woman who has survived an attempt on her life.

Eleven years ago, at 5 pm in the afternoon, I was the victim of a random act of violence. While walking to my car in a shopping mall parking lot, thinking how lucky I had been to get a spot so close to the entrance, I was approached by a young man carrying a knife. The man grabbed me and told me he was going to kill me. I remembered learning that in these situations you would be safer if you did not struggle. I did not fight my attacker, but my throat was slit and cheek almost entirely sliced off. The only reason I am alive today is because other shoppers in the parking lot quickly came to my aid and chased my assailant off. One of the men who helped save my life was also injured.

I was one of the lucky ones. My assailant was turned in by his father four days later and brought to trial. During this process I learned that his motive was not robbery but that he was angry about being denied a job at a shop in the mall. When asked what he did for a living, he said he killed people. I also found out that he had been taking drugs and drinking at the mall all day. He had been in trouble with the law since he was twelve. My assailant was sentenced to 15 years in prison for my attack and he remains there today. My last image of him is that of him facing my family and me in court, telling me, " I know where you are and I will be back". I have suffered through his parole hearings. His 15 years are almost up and I am frightened!

I will forever carry the physical and emotional scars of this brutal attack. My recovery has been slow over the years and continues today. I not only had stitches and hours of plastic surgery to handle, but two teenage children as well. My daughter is still traumatized by the vision of her mother in the emergency room. I no longer go out at night or walk alone anywhere and my assailant's image haunts me every night before I go to bed.

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Living thorough this traumatic experience has made me realize that Kansans need the right to defend themselves and their families. With my story in mind, I urge you to support S.B.0021, The Right to Self Protection Bill and give Kansans the right that they justly deserve.

Sylvia Foulkes
Olathe, Kansas
913-782-6575

Roger T. LaRue
PO Box 2603
Olathe, Kansas 66063
February 9, 1997

Senate Federal and State Affairs
Committee
Kansas Senate
Topeka, Kansas

Dear Ladies and Gentlemen,

Thank you for the opportunity to speak to you today in regards SB21, and HB2159, which will come before the Senate and the House during this legislative session.

I am a Police Officer, I have served in Law Enforcement since March of 1970, on the 1st of Feb., I completed 25 years as a policeman for Olathe, Kansas, and have begun my 26th year. I began my career in Police work in Russell, after returning from duty with the Marines in Vietnam. I continued service with the Hays Police Department, and then to the Federal Protective Service, United States Special Police, based in Kansas City, Missouri.

Presently I am a Detective Sergeant with the Olathe Police Department, I the supervisor for the Crimes Against Persons unit with my department, which investigates Homicides, Robbery's, Sexual Assaults, and assaults against persons, both misdemeanor and felony. I am also assigned to the Kansas City Metropolitan Metro Squad, as a Major Case Investigator, and Lead Officer, where in I and others investigate Homicide's in an 8 county area in the metropolitan Kansas City area.

I have 7 1/2 years as either a uniformed officer, or a Field Sergeant, 1 year as a Watch Commander, and nearly 17 years as a Sergeant in the Detective Division, working Burglary, Narcotics, and the remaining nearly 8 years supervising Crimes Against Persons.

The purpose of my being here today is to assure you that Law Enforcement Officers **do** support the passage of "Right to Carry" legislation, particularly the line or field officers who deal with victims and criminals every day.

As a LEO, I have no fear of law abiding persons having the ability to choose to carry a firearm for protection outside of the home, I know that under the bills indicated above that those persons who receive their licenses, will have undergone a background investigation, and completed a firearms training course. I was present last year during hearings when the *Sheriff of Shawnee County Kansas, the Kansas State Troopers Association, and the Kansas Fish and Game Officers Association* all went on record in support of this type of bill.

I would like to share an incident that I recall from a cold winter night when I was a young Field Sergeant, stopping a car on Kansas City Road, leading from our city to Lenexa. I had stopped the vehicle for a bad license tag, but upon obtaining identification from the driver and his three passengers, I knew as I ran record checks on them that four of the five were felons of some renowned. The dispatcher advised that there were no units available to assist me at that time, and as it turned out, I didn't need any immediately, after all. I heard the crunching of feet on snow to the side of me, and then heard a loud voice call out "you do what the officer told you, and get your hands up", a resident had seen my car stop, and after what the resident thought was a sufficient time for me to have released the car and gone on, or a second officer to come to my assistance, the Citizen came out, *with* his 20 gauge shotgun to see if I needed help. Beside the car we later found a .38 caliber pistol, and a .22 caliber rifle, that the cars occupants had thrown out sometime after I had stopped them.

In 1994, a friend of mine was a murder victim, he had given the suspect his money, and was killed by the robber anyway.

In 1995 a friend of mine was walking along the path bordering I-435, at Antioch, and was menaced by a deranged individual who made gestures as if he had a weapon, causing my friend to retreat, finding only a rock to use to defend

himself, but retreat he did, rock in hand. There have been three or four brutal rapes in that same area in the past couple of years, unsolved.

As a Police Officer, I know better than most that we, the police, can not be everywhere to protect the persons who live in our cities, we seldom are in a position to be at the scene of a in progress rape, robbery, or murder, we must pick up the pieces afterward.

I ask you to give the honest law abiding citizens in our State the ability to defend themselves, this legislation makes everyone safer.

I would be happy to talk to any of you further, my home phone number is 913 764-1173, and my work number is 913 782-4500.

Sincerely,

Roger T. Larue

ROGER T. LARUE

TESTIMONY OF CAROLYN WASSON ON S.B. 21
FEDERAL AND STATE AFFAIRS COMMITTEE
KANSAS SENATE
FEBRUARY 10, 1997

Ladies and Gentlemen of the Senate thank you for your consideration and attention. My name is Carolyn Wasson. I am a resident of Overland Park. I have been a woman since 1947, a mother since 1966, a licensed Realtor since 1974. I appreciate the opportunity to speak to you today, about my personal fears and concerns for safety that are directly related to both the facts that I am a woman and my chosen profession.

I was born and raised in a small town in upstate New York. My family was involved in sustenance hunting during my early years and my education about firearms came as a young child, and I have no fear of them. I was also fully cognizant of the damage they could do.

Because of the size of the town and the area, I knew most of the residents. Everyone knew everyone else, and people who displayed themselves to be a threat were dealt with swiftly by the local authorities. I have four children, three daughters and a son. My husband and I raised them to have respect for firearms and the power they have, just as we had been raised. Each child went through hunters safety programs between the age of eleven and twelve even if they said they never intended to hunt. Because we felt that the knowledge and training were important, and because there were self-defense firearms in our home. They were shown at early ages by my husband's example of shooting water jugs full of water that firearms were not toys and had very destructive power. We made sure their curiosity was satisfied by being able to handle and shoot under correct adult supervision.

All three girls at times have had to walk alone. All four children have had jobs that released them late at night or at times when people were not always around to watch for their safety. It saddens me that until they are of legal age the most any parent can do is teach them to be aware of their surroundings and pray for their protection. My second daughter was Miss Kansas in 1991 and traveled this great state throughout her reign. As parents we were always concerned about her safety. She was provided a cellular phone that did ease our fears to some degree and would bring people after the fact. These phones do not work in all areas, nor can you use them to defend yourself.

There are certain circumstances in my line of work that cause you to take actions that are not always the safest. It is a business driven by emotion and "Hot Times." It is not unusual for someone to call and want to see a home in fifteen minutes. This home may be vacant and they just want you to "meet them there." It is not unusual that no one will know who you are with most of the time. You go by instinct and log your showings with other companies but provide no one with an itinerary. After the fact it would be possible to trace where you had been but this would take some time. It is not reasonable to call and ask for a police escort on these potentially dangerous appointments. Construction sites also propose a threat to a woman alone. Yet each day thousands of women check into a vacant house to wait for that potential buyer to walk in.

Throughout the years I have found myself in circumstances that were a bit frightening. One example is a time that while traveling to a showing to meet a buyer my car hydroplaned and hit a pole. A man drove up on a tractor and instead of offering to help proceeded to expose himself to me.

I have personally known women who have been raped or worse and had no way to defend themselves. There are three instances during my career that come to mind in which Realtors have lost their lives. One was a man in North Kansas City who met someone at a vacant house and was found dead in that home several days later. There was a young woman who offered to house-sit while her clients were out of town looking for a new home was found raped and murdered. Thirdly, a Realtor whose seller insisted she had told him that she would get him a certain price for his home was shot for bringing him less than full price-offer. In each case the Realtors were unable to defend themselves because in this state there in no provision for concealed carry. In our line of work strapping on a holster or having a firearm on the seat beside you is not exactly conducive to closing the sale or establishing rapport with the customer.

In closing, I want you to know I realize the best defense is acute awareness and anticipation of a situation. I do take these precautions. I urge you to enact the legislation that will allow properly trained individuals the ability to carry a concealed firearm to defend themselves. As an assistant DA recently said to my friend,. and I quote " Lady. . . in this state you have the right to die, but you do not have the right to carry a firearm with which to defend yourself."

Jan Exby
8218 W. 97th Terr.
Overland Park, KS 66212

Honorable members of the Committee, I am here today to express my opposition to Senate Bill 1606. Legislation should protect our rights, but this proposal is designed to take away our rights of self-defense through constitutional amendment. This is truly an extreme measure. Only a privileged few would have the right to carry firearms out of sight, for self defense. It should be rejected.

I speak today not only for myself but on behalf of a national organization called Safety For Women And Responsible Motherhood. We have organized in the Kansas City area and surrounding communities. We believe that it's essential for women to have the options and the means to protect themselves and their families. I hear from women in cities and I hear from them in the rural areas. They do not feel safe and they want all options available to defend themselves.

We should let those legislators that we have voted for, deliberate upon and pass a bill which would permit trained, law-abiding citizens of Kansas the option of carrying a handgun, out of sight, for self-defense. All but 7 states now have provisions giving this right to their citizens.

I live in a nice city with neighboring communities that have good, affordable housing and excellent schools. We also have violent crime. One evening in March of 1995, I became the victim of a violent crime. I was with a young lady who also became a victim. We were robbed and sexually assaulted in her apartment, a block and a half from the local police station. A man forced his way into the apartment; he barred the door and threatened to shoot us. It was dark, but from the outside window light we could tell that he was disguised from head to foot. Pepper spray would have been useless. We were made to lie face down on the floor while he demanded our money. All we had was $15. He then forced us into the bedroom. When we tried to talk to him, he responded by choking and threatening us. At the threat of our lives, we were both assaulted. I prayed with all my heart that we would not be found murdered. I had no legal way to protect either one of us, although I would have been justified.

Even when a woman lives through rape, she faces death because of the threat of AIDS. Lives are forever changed, and certain fears and the reality of no guarantee that something else will never happen, are forever with you and your

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family and friends. A woman named Barbara told me her story of how she has lived this reality, having been abducted and raped by three men, and then raped again and threatened with murder, the following year on the very same day, by two other men. Women need the ability to defend themselves against vicious attacks like these.

Is it right to prevent any law-abiding, capable woman from possessing the means to defend herself against rape, robbery, murder, or anything else as violent and disgusting? The women who talk to me say NO! They believe they have a God-given right as a living, breathing, human being to defend themselves. Our laws should be protecting that right, not taking it away as SB1606 would do.

I was attacked outside of my home, where most crime occurs. Ironically, if I had been in my home, I would have been justified in defending myself. Why am I less important outside of my home? If I am able to openly carry a firearm for protection (which I really couldn't do without being harrassed) why do some think I will become less law-abiding by carrying it out of sight? Three out of four women will be the victim of at least one violent crime during their lifetime. Some women think it will never happen to them - they should think again. Women are concerned because no place is safe anymore.

It should be obvious to us by now that criminals will have no regard for laws. Restricting the ability of peaceful citizens to defend themselves only makes them more attractive targets. Criminals do respect the possibility that an intended victim may be armed.

The women I have talked with come from a variety of backgrounds and occupations, ranging from full-time homemakers and wives to banking and finance professionals, contract negotiators, retired school teachers, secretaries, sales reps, etc. Some are single moms who carry the heavy burden of knowing that they alone are responsible for the safety of themselves and their families. Some have been victims, like myself, and none want to be victims in the future. Some own guns and know how to use them. Some do not own guns but know that may be a choice they'll have to make someday. With 75% of first time gun purchasers in this country being women, what does that tell you about how they feel?

Women tell me they don't feel they can go for walks away from their homes anymore, let alone use a jogging trail, because they have no sure means of defense. A woman in southern Kansas called me and told me how she and her farming neighbors don't feel they can walk down their country roads with their children any more without concerns for their safety. Driving in broad daylight on city streets and highways in my area has meant robbery, stalking, and even

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rape on the side of the road as cars drove by. My local paper recently reported that there are between 500-600 hard core gang members in my county. The women I know are concerned about the random, violent nature of crime and are highly alarmed that their freedom of self defense is being limited, rather than protected, by our government.

If we value women, then we must acknowledge that giving them the ability to protect their lives is most precious. This ability is even more important than where we worship, where we go to school, our freedom to meet together and to speak our minds. It is not dependent on the latest statistics or the latest community program, or your current occupation.

Legislation in the Senate, Bill 21, and legislation which is being proposed in the House, Bill 2159, are not new or radical legislation. Versions are being successfully implemented in 31 other states. Florida's Secretary of State has written:

> *"If you look closely at the statistics, and consider the fact that Florida's Concealed Weapon or Firearm License Program has been in effect for eight years with no changes initiated by any law enforcement group, you will agree that the program is indeed a success and a model for other states."*

Florida Law Enforcement Commissioner James T. Moore reported in 1995 in a memo to the governor,

"From a law enforcement perspective, the licensing process has not resulted in problems in the community from people arming themselves with concealed weapons.."

These bills can be used to construct a fair law. I support a law that calls for background checks, training and gives qualified citizens equal enjoyment of the permit regardless of where they live. Permit fees would provide funding to support administration of the program and could even provide as much as $1MM to an administering agency, such as the Kansas Bureau of Investigation.

I urge you to support legislation which will provide the law-abiding citizens of Kansas the ability for self-defense outside their homes.

Thank you.

League of Kansas Municipalities

Legal Department
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Phone: (913) 354-9565/ Fax: (913) 354-4186

Legislative Testimony

TO: Senate Federal and State Affairs Committee

FROM: Don Moler, General Counsel

RE: Comments on SB 21 and SCR 1606

DATE: February 10, 1997

First of all, the League would like to thank the Committee for allowing us to appear today to comment on SB 21. We appreciate the fact that SB 21 does not include a preemption provision restricting the ability of cities to legislate in this area. Senator Hardenburger is to be commended for her efforts. Recognizing this fact, we cannot overstate how strongly the League of Kansas Municipalities opposes any state preemption of local laws regulating the use of concealed weapons in our state. This is a fundamental question that the legislature should not undertake lightly. League records indicate that cities in Kansas have had the power to regulate all types of firearms within their communities since at least 1863. Over the 134 years which have elapsed since that time, we believe that cities throughout the state have acted reasonably on behalf of their citizens to regulate firearms in a responsible manner. The preemption of local authority strikes at the very heart of Constitutional Home Rule authority of cities in Kansas and is a complete departure from the historical nature of firearm control in Kansas. Proponents of local preemption in this area disregard not only the Constitutional Home Rule authority of cities and their responsiveness to their citizens, but also disregard the illustrious history of the State of Kansas and the public policy decisions that have been made over the past 134 years to allow cities to regulate firearms within their geographical boundaries.

The League has a long standing policy position against any state preemption of the ability of local authorities to determine local matters locally. Specifically in the ***1996-1997 Statement of Municipal Policy***, which was adopted by the membership of the League of Kansas Municipalities at its annual convention in October 1996, Section G-7 entitled **Firearms Regulation** states as follows:

> "We oppose any legislative efforts to restrict or preempt local home rule authority to regulate firearms, including the possession or discharge or firearms in public places within cities. As a matter of public safety, we also oppose any modification of state statute which would allow ordinary citizens to carry concealed weapons in public places."

Despite this policy statement in general opposition to allowing concealed carry, the League is not specifically opposing SB 21. Rather, we are concerned about the preemption of local authority in this area. Cities have been protecting their citizens since the state was founded and are expected to do that today. In contrast, current state statutes controlling firearms are typically very broad in scope and limited in application. They essentially make it unlawful to: carry concealed weapons; give or dispose of a firearm to a person addicted to a controlled substance or who is a felon; remove or deface the identification marks of a firearm; discharge a firearm upon or across the land of another; discharge a firearm at an unoccupied dwelling; and possess a

f n within the state capitol building and other state buildings. Most substantive regulation of fire in Kansas is done at the local level.

The League believes cities have used their power reasonably, effectively and prudently in regulating guns within their boundaries. We would point out that if the citizens of a given city believe that a governing body has overstepped its bounds in the area of gun control, or any other area for that matter, they have the ability to remove elected governing body members from office at the ballot box and replace them with a governing body who will pass ordinances and other local regulations more to the citizenry's liking.

The League is suggesting adding an additional section to SB 21 as follows:

"No portion of this act shall be construed to restrict the Constitutional Home Rule authority of cities in Kansas to regulate the carrying, possession or use of concealed weapons within the boundaries of the city."

We should not deceive ourselves into believing that the State of Kansas is truly in the gun control business, it isn't. Most gun control regulation is and has been done at the local level since statehood. We see no reason to change this long-standing policy which has served the state well for many, many years.

SCR 1606

The League is generally supportive of this effort to allow the citizens of Kansas the opportunity to vote on this issue. As we understand this constitutional amendment, it would allow for an up or down vote on whether the Kansas legislature could allow ordinary citizens to carry concealed weapons in the state. A "yes" vote would also have the effect of maintaining the status quo in Kansas concerning concealed weapons. This effort represents a viable alternative for public input and could theoretically settle this issue for many years to come.

LEGISLATIVE TESTIMONY

Kansas Chamber of Commerce and Industry

835 SW Topeka Blvd. Topeka, Kansas 66612-1671 (913) 357-6321 FAX (913) 357-4732

SB 21

February 10, 1997

KANSAS CHAMBER OF COMMERCE AND INDUSTRY

Testimony Before the

Senate Committee on Federal and State Affairs

by

Terry Leatherman
Executive Director
Kansas Industrial Council

Madam Chairperson and members of the Committee:

My name is Terry Leatherman. I am the Executive Director of the Kansas Industrial Council, a division of the Kansas Chamber of Commerce and Industry. Thank you for this opportunity to explain a concern the members of the Kansas Chamber have regarding the issue contained in SB 21.

The Kansas Chamber of Commerce and Industry (KCCI) is a statewide organization dedicated to the promotion of economic growth and job creation within Kansas, and to the protection and support of the private competitive enterprise system.

KCCI is comprised of more than 3,000 businesses which includes 200 local and regional chambers of commerce and trade organizations which represent over 161,000 business men and women. The organization represents both large and small employers in Kansas, with 47% of KCCI's members having less than 25 employees, and 77% having less than 100 employees. KCCI receives no government funding.

The KCCI Board of Directors establishes policies through the work of hundreds of the organization's members who make up its various committees. These policies are the guiding principles of the organization and translate into views such as those expressed here.

The policy question of expanding the rights of citizens to carry a concealed weapon prompts a very divided response from KCCI members. A year ago, a KCCI survey asked two questions concerning the concealed weapons issue. In the first question, asking whether our members support legislation to require officials to issue a concealed weapons permit to any law abiding citizen that has

s ssfully completed a firearms safety course, the vote was close. Fifty-seven percent oppo the idea, while 43% supported the proposal.

Our second question asked if a business owner should retain the right to determine work place policies which could preclude employees and customers from carrying a concealed weapon onto the business premises during hours of employment. While our first question drew a split vote, the response to the second question was nearly unanimous, with 96% support. To a large extent, this employer concern has been addressed in New Section 32 (page 20, line 35) of the bill. However, KCCI respectfully requests this provision be strengthened by adding the following amendment to SB 21.

> This act does not prevent or otherwise limit the right of a public or private employer to ***limiting, restricting or*** prohibit***ing in any manner*** persons who are licensed under this act from carrying a concealed handgun on the premises of the business ***or during any period of employment***.

This addition to the Employers Rights provision in SB 21 is intended to retain an employer's rights concerning concealed handguns when an employee is "on the job" but off the premises. For instance, the amendment is needed if an employer desires to ensure that delivery drivers are not carrying a concealed handgun while they are making deliveries. The other additional language is needed to not limit an employer's options regarding concealed handgun policies.

KCCI's concern regarding SB 21 is that any new right it grants does not alter the Chamber's core belief that an employer should have the clear right to tell an employee to leave their gun at home when they are on the job and that a business owner must retain the right to turn customers away at the door if they are carrying a properly licensed concealed weapon. In addition to the Kansas Chamber, the Kansas Chapter of the National Federation of Independent Business and the Kansas Pest Control Association has asked to join KCCI in this request to amend SB 21 to make clear a business owner's rights regarding concealed weapons.

Madam Chair, thank you for the opportunity to request this amendment to SB 21. I would be happy to answer any questions.

Senate Bill No. 21
Senate Federal and State Affairs Committee
February 10, 1997

Testimony of Paul Shelby
Assistant Judicial Administrator
Office of Judicial Administration

Madam Chairperson and members of the committee:

I appreciate the opportunity to discuss with you Senate Bill No. 21 which relates to licensure to carry certain concealed weapons.

On behalf of the Judicial Branch, I am requesting an amendment to Section 37, Page 21 of the bill which would prohibit the licensee from carrying a concealed firearm in the Kansas Judicial Center, any courthouse, courtroom, or court office or any building in which a court proceeding is taking place.

In some judicial districts, because of overcrowding in the courthouse, some court offices are housed in other buildings other than the courthouse. For example, in Garden City there are court offices housed in an annex building. We have several districts, 8th, 16th, 29th, 10th, 23rd and others, where our Court Services Officers are officed outside of the courthouse.

Also, as an example for any building in which a court proceeding is taking place would be Shawnee County where they are holding court in the Expo Center every Tuesday. The Court of Appeals hold hearings in the Law Schools and other locations.

Our amendment would broaden the prohibition of K.S.A. 21-4218 which prohibits carrying a firearm within the Judicial Center and most county courthouses which is attached.

We urge your favorable consideration for this amendment.

21-4218. Unauthorized possession of a firearm on the grounds of or within certain state-owned or leased buildings and county courthouses. (a) Possession of a firearm on the grounds of or in the state capitol building, within the governor's residence, on the grounds of or in any building on the grounds of the governor's residence, within the state office building at 915 Harrison known as the Docking state office building, within the state office building at 900 Jackson known as the Landon state office building, within the Kansas judicial center at 301 West 10th, within any other state-owned or leased building if the secretary of administration has so designated by rules and regulations and conspicuously placed signs clearly stating that firearms are prohibited within such building, and within any county courthouse, unless, by county resolution, the board of county commissioners authorize the possession of a firearm within such courthouse, is possession of a firearm by a person other than a commissioned law enforcement officer, a full-time salaried law enforcement officer of another state or the federal government who is carrying out official duties while in this state, any person summoned by any such officer to assist in making arrests or preserving the peace while actually engaged in assisting such officer or a member of the military of this state or the United States engaged in the performance of duties who brings a firearm into, or possesses a firearm within, the state capitol building, any state legislative office, any office of the governor or office of other state government elected official, any hearing room in which any committee of the state legislature or either house thereof is conducting a hearing, the governor's residence, on the grounds of or in any building on the grounds of the governor's residence or the Landon state office building, Docking state office building, Kansas judicial center, county courthouses unless otherwise allowed, or any other state-owned or leased building, so designated.

(b) It is not a violation of this section for the governor, the governor's immediate family, or specifically authorized guests of the governor to possess a firearm within the governor's residence or on the grounds of or in any building on the grounds of the governor's residence.

(c) Violation of subsection (a) is a class B nonperson select misdemeanor.

(d) This section shall be part of and supplemental to the Kansas criminal code.

History: L. 1991, ch. 89, § 1; L. 1992, ch. 298, § 80; L. 1993, ch. 291, § 157; July 1.

SENATE BILL No. 21

AN ACT providing for licensure to carry certain concealed weapons; prohibiting certain acts and prescribing penalties for violations; amending K.S.A. 1996 Supp. 21-4201 and repealing the existing section.

Be it enacted by the Legislature of the State of Kansas:

New Section 1. . .

New Sec. 37. (a) A license holder commits an offense if the license holder carries a handgun on or about the license holder's person under the authority of sections 1 through 36 and intentionally fails to conceal the handgun.

(b) A license holder commits an offense if the license holder intentionally, knowingly or recklessly carries a handgun under the authority of sections 1 through 36 regardless of whether the handgun is concealed, on or about the license holder's person:

(1) On the premises of a business that has a permit or license issued under subsection 5 of K.S.A. 41-308b and amendments thereto and article 26 of the Kansas liquor control act, K.S.A. 41-101 et seq. and amendments thereto if the business derives 51% or more of its income from the sale of alcoholic beverages for on-premises consumption;

(2) on the premises where a high school, collegiate or professional sporting event or interscholastic event is taking place, unless the license holder is a participant in the event and a handgun is used in the event;

(3) on the premises of a correctional facility;

(4) on the premises of a hospital licensed under K.S.A. 65-425 et seq. and amendments thereto or on the premises of a nursing home licensed under K.S.A. 65-3501 et seq. and amendments thereto unless the license holder has written authorization of the hospital or nursing home administration, as appropriate;

(5) in an amusement park; ~~or~~

(6) on the premises of a church, synagogue or other established place of religious worship~~.~~; **or**

(7) in the Kansas Judicial Center, any courthouse, courtroom, or court office or any building in which a court proceeding is taking place.

(c) A license holder commits an offense if the license holder intentionally, knowingly or recklessly carries a handgun under the authority of sections 1 through 36, regardless of whether the handgun is concealed, at any meeting of a governmental entity.

(d) A license holder commits an offense if, while intoxicated, the license holder carries a handgun under the authority of sections 1 through 36 regardless of whether the handgun is concealed.

(e) A license holder who is licensed as a private detective or security officer under K.S.A. 75-7601 and amendments thereto and employed as a private detective or security officer commits an offense if, while in the course and scope of the private detective or security officer's employment, the private detective or security officer violates a provision of this act, and amendments thereto.

(f) In this section:

(1) ``Amusement park'' means a permanent indoor or outdoor facility or park where amusement rides are available for use by the public, located in a county with a population of more that one million, encompasses at least 75 acres in surface area, is enclosed with access only through controlled entries, is open for operation more than 120 days in each calendar year and has security guards on the premises at all times. The term does not include any public or private driveway, street, sidewalk or walkway, parking lot, parking garage or other parking area.

(2) ``License holder'' means a person licensed to carry a handgun under sections 1 through 36, and amendments thereto.

(3) ``Premises'' means a building or a portion of a building. The term does not include any public or private driveway, street, sidewalk or walk-way, parking lot, parking garage or other parking area.

(g) An offense under subsection (a), (b), (c), (d) or (e) is a class A misdemeanor, unless the offense is committed under subsection (b)(1) or (b)(3), in which event the offense is a felony of the third degree.

(h) It is a defense to prosecution under subsection (a) that the actor, at the time of the commission of the offense, displayed the handgun under circumstances in which the actor would have been justified in the use of deadly force under K.S.A. 21-3211 and amendments thereto. . .

Sec. 39. K.S.A. 1996 Supp. 21-4201 is hereby repealed.

Sec. 40. This act shall take effect and be in force from and after its publication in the statute book.