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Recidivism of Denied Prospective Firearm Purchasers

Abstract

This report examines the effectiveness of the firearm eligibility background checks performed by the FBI's National Instant Background Check System (NICS) and implemented under the Brady Act. The study assesses the impact of NICS-based firearm purchase denials as an intervention in an effort to explore whether Brady NICS checks constitute an effective intervention for directly or indirectly reducing future arrests.

Disclaimer

Recidivism of Denied Prospective Firearm Purchasers

By James M. Tien, Ph.D.
Michael F. Cahn
David M. Einstein
Ke Pei
Structured Decisions Corporation

This report examines the effectiveness of the firearm eligibility background checks performed by the FBI's National Instant Background Check System (NICS) and implemented under the Brady Act. The study assesses the impact of NICS-based firearm purchase denials as an intervention in an effort to explore whether Brady NICS checks constitute an effective intervention for directly or indirectly reducing future arrests.

Highlights

• The overwhelming motivation for the study is its "win-win" aspect. More specifically, there are two possible study outcomes: the denied persons, comprising the test group, could have either a lower or a higher recidivism rate than that of a comparable control group. If the outcome is a statistically significant lower recidivism rate, then we can conclude that the Brady NICS denials constitute an effective intervention for directly reducing future arrests. If, on the other hand, the outcome is a statistically significant higher recidivism rate, then we can conclude that the Brady NICS denials constitutes an effective intervention for indirectly reducing future arrests by additionally implementing the "lie-and-try" component of DOJ's Project Safe Neighborhoods.

• Focusing only on those persons denied for a criminal reason and based on a Cox Proportional Hazards Survival Regression Analysis, which corrects or controls for both prior arrests and age, the denied persons' risk of arrest in the five years after denial is 28.3% higher than in the five years before denial. This finding underscores the importance of implementing the lie-and-try strategy together with the denial intervention.

- The need for lie-and-try is further underscored by the finding that the 1999 denied persons had an 80.5% increase in firearm-related arrests in the five years after denial as compared to the five years before denial.

The study was performed under cooperative agreement #2004-BJ-BX-K001 provided by the Bureau of Justice Statistics (BJS), U.S. Department of Justice (DOJ). It could not have been successfully undertaken without the cooperation and support of the FBI's Criminal Justice Information Services (CJIS), including the NICS Section and the Identification and Investigative Services Section.

Study Motivation

Funded by BJS and undertaken by Structured Decisions Corporation (SDC), this is the fourth in a series of research studies concerned with firearm background eligibility checks. Its three predecessor studies are: "Interstate Identification Index Name Check Efficacy: Report of the National Task Force to the U.S. Attorney General" (SEARCH, 1999); "Cost-Benefit of Point-of-Contact (POC) Versus Non-POC Firearm Eligibility Background Checks" (Tien and Cahn, 2003); and "Assessment and Resolution of Replicated Firearm Eligibility Checks" (Cahn, Tien and Einstein, 2005). While these earlier studies added significantly to the body of knowledge concerning the impact of the Brady Act, they did not address two important questions about the persons who are determined – by a background check – to be ineligible to purchase firearms (i.e., the denied persons). First, who are the denied persons? Second, what is the impact of the denial? To address these questions, BJS funded two parallel and complementary studies. The Regional Justice Information Service (REJIS) of St. Louis, MO, is examining the characteristics of denied persons, while SDC has looked at the impact of the denial itself.

The overwhelming motivation for conducting this recidivism study is its "win-win" aspect. That is, assuming a valid study design could be developed and implemented and could yield statistically significant results, there are two possible study outcomes: the denied persons, comprising the test group, could have either a lower or a higher recidivism rate than that of a comparable control group. If the outcome is a statistically significant lower recidivism rate, then we can conclude that the Brady NICS denials constitute an effective intervention for directly reducing future arrests. If, on the other hand, the outcome is a statistically significant higher recidivism rate, then we can conclude that the Brady NICS denials constitute an effective intervention for indirectly reducing future arrests by additionally implementing the "lie-and-try" component of DOJ's Project Safe Neighborhoods. Through lie-and-try, denied prospective firearm purchasers would be prosecuted for falsifying information on their purchase application (i.e., ATF Form 4473). The prosecution, and the possible conviction, of a denied person may serve as a deterrent to that person, and possibly others, from committing a crime after denial. Furthermore, if convicted and sentenced to jail or prison, the denied person would, of course, be incapacitated from committing crimes for the duration of his/her incarceration. Clearly, this "win-win" prospect underscores the need for and the importance of understanding the long-term success of NICS – hence, the undertaking of this study.

We should also note that to refer to such an effort as a criminal recidivism study is somewhat misleading since the subjects may have been denied for reasons other than the prior conviction or indictment for the commission of a criminal act. Additionally, a prospective purchaser can also be denied for a number of non-criminal reasons, including immigration status, civil protection order, mental incompetence, dishonorable discharge, and renunciation of citizenship. However, the term "recidivism" is generally accepted and understood as a re-occurrence; hence, we can refer to this effort as a NICS recidivism study, inasmuch as it is based on the range of NICS-related disqualifiers which violation would render a prospective firearm purchaser ineligible.

Study Design

Looking at the denial event as an intervention, the critical study design question concerns the identification of a control group that is comparable or equivalent to a test group of denied prospective firearm purchasers. An obvious control group would be those prospective firearm purchasers who were not denied (i.e., "proceeded"). However, under the current Federal rules and regulations governing NICS, comparable data regarding the proceeded population are not available since all identifying information must be expunged from the NICS system once a firearm purchase is proceeded. Indeed, establishing a truly experimental design – in which the test and control groups are equivalent – is an almost impossible task, since these two groups must be equivalent in a range of attributes, including past history of disqualifying offenses, age, gender, etc. Instead, we proposed – and BJS accepted – a quasi-experimental design in which the denied persons serve as their own control, so that the recidivism rate comparison would be on a pre-post or before-after basis. A quasi-experimental design is, of course, not as powerful as a truly experimental design in overcoming the range of threats to the validity of the resultant study findings. However, this before-after approach has been successfully employed by SDC in several studies where we carefully implement the approach, closely monitor the possible threats to validity, and to the extent possible, mitigate the most egregious threats through model-based corrections, as is done in this study.

In proposing the study, our initial intention was to work with NICS to develop a sampling approach for abstracting a statistically valid sample of denied persons from all those denied in calendar year 1999 (i.e., the first full calendar year of the Permanent Brady system's operation), resulting in a five-year test period (i.e., 2000-2004) and a five-year control period (i.e., 1994-1998). When we met with NICS to identify a sampling procedure, we were pleased to learn that NICS would provide us with information on 100 percent of the 1999 denied persons, obviating the need for sampling. We then asked NICS if they could also carry out new background checks on the 1999 denied persons. They agreed to do so but subject to three constraints: (i) they would perform the checks during a period of relatively low background check activity; (ii) they would only perform the checks on a sample of the 1999 denied persons, not the entire population; and (iii) they would not be willing to go outside of NICS in the process (i.e., they would not make phone calls to retrieve missing dispositions as they would in the normal conduct of firearm eligibility background checks in non-POC states).

Study Data

We acquired four data sets: NICS reports on 1999 denied persons; arrest records for those denied for a criminal reason; reports of current checks on a sample of 1999 denied persons; and a random sample of arrest records, respectively.

NICS Reports

NICS provided SDC with complete case history reports for all 88,206 background checks resulting in a denial of the right to purchase a firearm in 1999 (see Table 1). Of these, 82,138 (93.1%) were denied for a criminal reason, 5,746 (6.5%) for a non-criminal reason, and 322 (0.4%) for both reasons. It should be stated that the case history report is not an extract of NICS's denial data; rather it is the complete record that NICS staff view when they research a NICS Transaction Number (NTN), a unique number assigned to every NICS background check. The text-based reports had to be "parsed" to convert them into a database format and the data adjusted, as the Table 1 footnotes indicate. We ended up with a data set consisting of 71,572 denied persons, 66,115 (92.4%) of whom were denied for a criminal reason and 5,457 (7.6%) of whom were denied for a non-criminal reason. It should also be noted that allowing for multiple checks, where the same person was denied more than once, there were 72,049 checks performed on the 66,115 persons denied for a criminal reason, that is, on the average, there were 1.09 checks per denied person.

Criminal History Records of Those Denied for a Criminal Reason

At NICS' request, CJIS provided SDC with the arrest histories of those 66,115 denied persons who were denied for a criminal reason. These criminal records, extracted from the CJIS Interstate Identification Index (III), consist of demographic information, arrest information and court information (e.g., charge dispositions), to the extent the latter is available. While it took three attempts for the arrest information to be correct, the delay enabled us to expand the scope of the study to incorporate five full years of data before and after the 1999 denials.

Unfortunately, the "offense code" field in III arrest records is deficient. If it is not blank, it contains a designation which is either irrelevant or at best marginally relevant to the arrest charge. The actual nature of the offense is contained only in the free text field referred to as the "Arrest Offense Literal (AOL)" which consists of a narrative description of the offense for which the arrestee was charged. The AOL field must be parsed in order to extract an offense category. Fortunately, in conjunction with past recidivism research and their current study of the characteristics of denied persons, REJIS has developed computer code which performs the required parsing, converting the free text to three levels of charge categories. By agreement with BJS, REJIS assisted SDC by providing us with their code and by fixing minor bugs that SDC identified in the course of our analysis.

New NICS Checks on a Sample of 1999 Denied Persons

Subject to the conditions stated, NICS had agreed to perform current NICS checks on a sample of 5,000 of the 1999 denied persons. Recognizing that a disqualifying criminal history would almost always be a permanent firearm purchase prohibitor (unless the prohibiting conviction was expunged, pardoned or otherwise overturned), we deliberately focused the sample on those

denied for a non-criminal reason. NICS performed background checks on 674 persons denied for a criminal reason (i.e., 1.0% of those denied for a criminal reason); and on 4,144 persons denied for a non-criminal reason (i.e., 75.9% of those denied for a non-criminal reason).

<u>Random Sample of Criminal History Records</u>

To assist us in identifying and mitigating potential threats to the study's validity, we requested that CJIS also provide us with a random sample of III arrest records. Agreeing to provide us with approximately 50,000 records, and after several false starts on producing statistically random samples, we agreed on an approach: CJIS extracted the criminal histories of those persons in III with at least one arrest in the 19-year period, from January 1, 1980 through December 31, 1998. We ended up with a sample of 48,061 records, which were judged to be random and representative.

Study Findings

The findings are summarized in terms of the characteristics of the 1999 denied persons, the outcomes of the new checks, and the impact of the denial intervention.

<u>Characteristics of the Denied Persons</u>

Table 2 presents the gender characteristics of the 1999 denied persons and compares them with those of the random sample of arrestees, consisting of persons with at least one arrest in the 19-year period, 1/1/80 – 12/31/98. Males dominate the denied firearm purchasers (93.0%) and comprise more than three quarters (77.7%) of the arrestees. The gender distributions of those arrested after being denied, mirrors that of the entire cohort of 1999 denied persons.
As Table 3 shows, the age distributions of the denied persons and the random sample are very similar; they average 39.7 and 38.1 years, respectively. The population of persons who are arrested after being denied is about 10% younger than the denied persons cohort while the general population, according to the 2000 US Census, is approximately 15% older.
Tables 4 and 5 look, respectively, at the 1999 denials in regard to the type of purchase intended and the frequency with which the same person is denied. Overall, almost three-quarters of the denied persons were attempting to purchase long guns. A 1997 survey of incarcerated offenders revealed that of those who had ever been armed while committing an offense, 76.3% were armed with a handgun. Of those who had ever used or possessed a firearm, 55.6% used or possessed a handgun. Clearly, the denied person's buying preference for long guns is the reverse of the possession and criminal use preferences of convicted offenders.

Since NICS background checks are name-based, not fingerprint-based, we have the "purported" criminal records and FBI numbers of those denied for a criminal record, and we can determine when individuals denied for a criminal reason were denied more than once for a criminal reason in 1999. As we might expect, the vast majority (92.2%) were denied only one time in 1999. Surprisingly, of the 7.8% denied multiple times, 30 persons were denied five or more times and two were each denied nine times!

<u>New Background Checks</u>

The outcome matrix in Table 6 compares the results of the background checks performed by NICS in 1999 with the new background checks performed by NICS in 2005 for a sample (4,818) of 1999 denied persons. As noted, the sample was deliberately skewed toward persons denied for non-criminal reasons; we were already in possession of the arrest histories of all those denied for a criminal reason, which, unless expunged or pardoned, remains a permanent disqualifier. The prevalence of "unresolved" outcomes (i.e., 35% of the total), can be explained by NICS' decision not to pursue the new check beyond the information made available to them by NICS. It should also be noted that some of the "no basis for denial" outcomes might also be deniable for a criminal reason if the current checks were as thorough as NICS's normal checks.

Table 6 shows that 365 (54.2%) of the 674 denied for a criminal reason in 1999 were still deniable for either a criminal reason (365) or both reasons (2) in 2005. If we eliminate the 36.9% unresolved cases, the 54.2% would increase to 85.9%. Of the 4,144 persons denied in 1999 for a non-criminal reason, 358 (8.6%) were still deniable for either a non-criminal reason (335) or both reasons (23) in 2005. Again, eliminating the 34.7% unresolved cases, the 8.6% would increase to 13.2%. Due to the temporal nature of some of the non-criminal reasons for denial (e.g., restraining orders may expire, warrants may be served without a disqualifying conviction), we would expect the current deniability for non-criminal reasons to have decreased from that of 1999.

Of particular interest are the reasons why 554 persons (who were denied for a non-criminal reason in 1999) were deniable for a criminal reason in 2005. Although we do not have their full III arrest histories, we do have the responses to their new (i.e., 2005) checks as reflected in the NICS log. For the 545 (98.4%) denied in 1999 for a domestic violence restraining order or being a fugitive from justice, Table 7 contains the distribution of their 2005 criminal reasons for denial. We note with interest that at least 390 (71.6%) are deniable for felony convictions.

Impact of Denials

Simple Pre-Post Design

Recall that the quasi-experimental pre-post research design calls for comparing the behavior of the 1999 denied persons in the five years before their denials with their behavior in the five years after their denials. Focusing on the 66,115 persons denied for a criminal reason, the simplest approach is to compare the total numbers of arrests and related statistics for this entire group occurring in the two five-year periods. Table 8 presents a number of comparative statistics resulting from this "simple" pre-post design; two, in particular, stand out. First, we see that the average number of arrests per person per year decreases by 7.8%. If valid, this result would indicate that the NICS denials constitute an effective intervention for directly reducing criminal behavior; the validity of this finding is discussed in the next section. Second, the number of firearm-related arrests increased by 80.5%. Although the absolute number of firearm-related arrests is less than 5% of all arrests, the increase is significant and indeed noteworthy. As far as we could discern from the charges extracted from the III arrest records, there was only a small number (171) of "lie-and-try" arrests wherein a denied person was subsequently arrested for lying on the firearm purchase application form (i.e., ATF Form 4473). It should be noted that

a denied prospective purchaser has, by definition, lied on his/her application – thereby committing a felony – since he/she must respond to questions regarding all the eligibility criteria. If any of the answers indicates ineligibility, no check is performed and the purchase is denied. The simple pre-post design is statistically problematic because several factors make it difficult to attribute changes in the arrest rate to the denials alone. This perceived 7.8% pre-post decrease in arrest rate does not account for (i) the "at least one arrest" artifact and (ii) the "criminal career aging" phenomenon.

Corrected Pre-Post Design

The artifact is caused by the data sampling criterion that selected persons must have at least one arrest prior to denial. Illustratively, when we calculate the arrest rate in the 2nd year after denial, by definition all 66,115 persons had at least one arrest prior to that year. However, when we calculate the arrest rate in the 2nd year before denial, not all of the 66,115 persons had an arrest prior to that year – in fact, only 61,116 (92.4%) had an arrest prior to that year. Consider a denied person with only one arrest. That arrest may have occurred at any time prior to denial but, by definition, it cannot have occurred during the five-year period subsequent to denial or that person would not have been denied for a criminal reason and would not be present in the sample. Thus, new deniable persons are joining the population of denied persons throughout the five-year period prior to denial. To compare the arrest rate of the entire population of 1999 denied persons in the five years before denial with their arrest rate in the five years after denial is to ignore the "at least one arrest" artifact.

The artifact of having at least one arrest prior to denial and the effect of aging can be corrected for using the model-based methods of survival analysis which are designed to analyze longitudinal data (i.e., data that vary over time) regarding the occurrence of events (i.e., in this case, the events are arrests). More specifically, we employed the Cox Proportional Hazards Survival Regression Analysis which has several important advantages. Among them, it does not require that the user choose a particular probability distribution to depict survival times (i.e., time until the next arrest) and it allows for stratification, an effective method for controlling variables. The hazard aspect of survival models refers to risk; in this particular application, the risk that future arrests will occur.

Utilizing the Cox model, we make the corrections for the at-least-one-arrest artifact and for the aging of criminal careers by controlling for both the number of prior arrests and age. Obviously, since the experimental and control groups are comprised of the same persons, there is no need to control for other demographic factors such as gender or race. The results of the corrected pre-post analysis appear in Table 9, where we are presented with the pre-post change in the risk of arrest. When neither the prior arrest artifact nor the aging phenomenon is corrected for, we find that the experimental (i.e., after denial) group has a 30.3% lower risk of arrest for any crime than the control (i.e., before denial) group, consistent with – although perhaps exaggerating – the 7.8% pre-post decrease in arrest rate. However, when the experimental group is corrected or controlled for the effects of prior arrests and age, the reverse happens – that is, the experimental (after denial) group has a 28.3% higher risk of arrest for any crime than the control (i.e., before denial) group.

It should also be noted that:

- Controlling for either prior arrests or age alone, results in post-denial increases in risk of 11.5% and 9.5% respectively, suggesting that these two factors interact strongly when both are controlled (i.e., in a larger 28.3% higher risk).

- Since we did not have access to the denied persons' complete criminal history records, just to select extracted information, we cannot reliably calculate risks of arrest for specific crime categories.

- There are many persons with no prior arrests in the control group and few in the experimental group, which may violate an underlying assumption of the Cox model and account for the amplified 30.3% risk figure when no adjustments are made for either prior arrest or age.

In sum, the 28.3% increased risk of criminal activity after denial underscores the importance of implementing the lie-and-try strategy, following the intervention of a NICS denial. The need for lie-and-try is further underscored by the finding that the 1999 denied persons cohort had an 80.5% increase in firearm-related arrests in the five years after denial as compared with the five years before denial.

Directions for Future Research

While the denial intervention is, of course, not the cause of increased criminal activity, it clearly signals an impending increased risk of criminal activity of 28.3%. Inasmuch as being denied a firearm means that the applicant has lied (i.e., committed a felony) on his/her application (i.e., ATF Form 4473), prosecuting denied persons by the lie-and-try strategy offers law enforcement an opportunity to reduce the likelihood of future criminal activity through possible deterrence or incarceration. The need for lie-and-try is further underscored by the fact that the number of firearm-related arrests increased by 80.5% from the five years before the denial to the five years after the denial. Thus, not only are the denied individuals more likely to commit crimes that result in an arrest, they are almost twice as likely to commit firearm-related crimes! Clearly, targeting lie-and-try on those denied a firearm – especially handguns – would enhance the effectiveness of the NICS intervention as a successful means of mitigating future criminal activities.

The above findings raise a number of important research questions that deserve examination, including:

- What is the offense and modus operandi history (e.g., arrest frequency, prior arrest charges, incident report details, elapsed time since most recent arrest, weapon used) for the denied person?

- Through predictive risk modeling, what is the likelihood that a denied person with particular demographics, offense and modus operandi history will be arrested after denial for specific types of offenses (e.g., violent, property, drug, public order, other)?

- Through resource allocation modeling, how should law enforcement officers and prosecutors allocate potentially scarce lie-and-try resources to mitigate future criminal activities of denied persons?

Mounting a study to address such questions will require more detailed data regarding the denied persons than that obtained for this recidivism effort. In particular, one would look for additional information about the outcomes of the pre- and post denial arrests such as prosecutorial and court dispositions and specific sentences. In addition, gathering data from several states which practice lie-and-try would help to better understand the lie-and-try prosecutorial process, as well as some of the attendant institutional issues (including the reluctance of juries to hear lie-and-try cases). Of course, the ultimate objective would be to develop easy-to-use, risk and allocation models that can inform prosecutors about which denied persons should be the focus of their limited lie-and-try resources.

Finally, the seemingly conflicting findings of this recidivism study with two earlier University of California at Davis studies (i.e., Wintemute et al. 2002; Wright et al., 1999) should be critically reviewed; SDC has identified several threats to the validity of these two studies that must be carefully considered within the conduct of such a proposed study.

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Table in Highlights:

		Number of Previous Arrests of Denied Persons	
		Not Controlled	Controlled
Age of Denied Persons	**Not Controlled**	30.3% *lower* risk of arrest for any crime after denial than before	11.5% *higher* risk of arrest for any crime after denial than before
	Controlled	9.5% *higher* risk of arrest for any crime after denial than before	28.3% *higher* risk of arrest for any crime after denial than before

Table 1. 1999 Denied Persons Case History Reports

	Reason for Denial			
NICS Transaction Number (NTN) Analysis	**Criminal Only**	**Non-Criminal Only**	**Both**	**Total**
Total NTNs in Data Set	82,138	5,746	322	88,206
Delete NICS Initiated Checks[1]	1,435	134	11	1,580
Subtotal	80,703	5,612	311	86,626
Delete State POC Initiated Checks[2]	7,563	87	3	7,653
Subtotal	73,140	5,525	308	78,973
Delete Overturned Denials[3]	6	0	0	0
Subtotal	73,134	5,525	308	78,967
Delete NTNs with Multiple IDs[4]	56	68	308	432
Subtotal	73,078	5,457	0	78,535
Delete NTNs for Criminal Reason w/o III Record[5]	1,029	0	0	1,029
Subtotal	72,049	5,457	0	77,506
Delete Known Multiples[6]	5,934	0	0	5,934
Total NTNs Remaining	66,115	5,457	0	71,572

Notes:
1. Include pawn redemptions, corrected mistyped call center transactions, etc.
2. In 1999, some state POCs were reporting denials to the NICS Audit Log.
3. Appealed denials that were overturned and allowed to proceed.
4. Background checks that identify more than one deniable candidate.
5. Persons denied for a criminal reason without an FBI criminal history record.
6. Second and subsequent NTNs for persons denied more than once in 1999. (Multiples cannot be detected for persons denied for non-criminal reasons; they do not have FBI numbers.)

Table 2. Gender Characteristics: Denied Persons and Random Sample

Gender of Denied Purchaser	Persons Denied in 1999 for a Criminal Reason						Random Sample of Arrestees	
			Arrested in One Year After Denial		Arrested in Five Years After Denial			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Male	61,507	93.0%	6,761	94.2%	18,646	93.9%	37,354	77.7%
Female	4,608	7.0%	417	5.8%	1,204	6.1%	10,703	22.3%
Unknown	0	0.0%	0	0.0%	0	0.0%	4	0.0%
Total	66,115	100.0%	7,178	100.0%	19,850	100.0%	48,061	100.0%

Table 3. Age Characteristics: Denied Persons and Random Sample

Age of Denied Purchaser[1]	Persons Denied in 1999 for a Criminal Reason						Random Sample of Arrestees		2000 US Census	
			Arrested in One Year After Denial		Arrested in Five Years After Denial					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
18-20	945	1.4%	263	3.7%	549	2.8%	1,252	2.6%	12,228,901	5.8%
21-30	13,962	21.1%	2,472	34.4%	6,164	31.1%	12,440	25.9%	38,585,859	18.5%
31-40	22,199	33.6%	2,612	36.4%	7,589	38.2%	16,543	34.4%	43,638,516	20.9%
41-50	17,684	26.7%	1,380	19.2%	4,235	21.3%	11,138	23.2%	41,631,348	19.9%
51-60	8,229	12.4%	365	5.1%	1,076	5.4%	4,521	9.4%	29,566,214	14.1%
Over 60	3,096	4.7%	86	1.2%	237	1.2%	2,162	4.5%	43,477,256	20.8%
Unknown	0	0.0%	0	0.0%	0	0.0%	5	0.0%	0	0.0%
Total	66,115	100.0%	7,178	100.0%	19,850	100.0%	48,061	100.0%	209,128,094	100.0%
Mean Age	39.7	--	34.5	--	35.4	--	38.1	--	45.2	--

Note:
1. Ages under 18, the minimum age for purchasing a long gun, are excluded from table.

Table 4. Types of Sales Denied in 1999

Type of Purchase	Persons Denied in 1999 for a Criminal Reason						Offenders Reported Possessing a Firearm (1997 Inmate Survey[1])	
			Arrested in One Year After Denial		Arrested in Five Years After Denial		Used or Possessed Firearm[2]	Armed While Commiting Offense[2]
	Number	Percent	Number	Percent	Number	Percent		
Long Gun	49,830	75.4%	5,035	70.1%	14,340	72.2%	55.7%	21.9%
Handgun	15,512	23.5%	2,048	28.5%	5,260	26.5%	76.8%	84.9%
Both	773	1.2%	95	1.3%	250	1.3%	N/A	N/A
Other	0	0.0%	0	0.0%	0	0.0%	5.8%	4.4%
Total	66,115	100.0%	7,178	100.0%	19,850	100.0%	--	--

Notes:
1. Source: *Firearm Use by Offenders*, BJS, 2001
2. Percentages add up to more than 100% since "both" not reported.

Table 5. Multiple Denials in 1999

N, Number of 1999 Denials for Criminal Reason	Persons with N Denials[1]		Number of NTNs
	Number	Percent	
1	60,929	92.2%	60,929
2	4,604	7.0%	9,208
3	465	0.7%	1,395
4	87	0.1%	348
5	19	0.0%	95
6	7	0.0%	42
7	2	0.0%	14
9	2	0.0%	18

Table 6. Outcomes of 1999 Versus 2005 Background Checks

		Outcomes of 2005 Eligibility Checks of Sample of 1999 Denied Persons Number Row Percentage Column Percentage Cell Percentage					
		Deniable for Criminal Reason Only	Deniable for Non-Criminal Reason Only	Deniable for Criminal and Non-Criminal Reasons[1]	No Basis for Denial[2]	Unresolved[3]	Total
Reasons for 1999 Denials	Denial for Criminal Reason	365 54.2% 39.7% 7.6%	14 2.1% 4.0% 0.3%	2 0.3% 8.0% 0.0%	44 6.5% 2.4% 0.9%	249 36.9% 14.8% 5.2%	674 100.0% 14.0% 14.0%
	Denial for Non-Criminal Reason	554 13.4% 60.3% 11.5%	335 8.1% 96.0% 7.0%	23 0.6% 92.0% 0.5%	1,793 43.3% 97.6% 37.2%	1,439 34.7% 85.2% 29.9%	4,144 100.0% 86.0% 86.0%
	Total	919 19.1% 100.0% 19.1%	349 7.2% 100.0% 7.2%	25 0.5% 100.0% 0.5%	1,837 38.1% 100.0% 38.1%	1,688 35.0% 100.0% 35.0%	4,818 100.0% 100.0% 100.0%

Table 7. 2005 Criminal Reasons for Denial for 1999 Non-Criminal Denied Persons

1999 Non-Criminal Reason for Denial	2005 Criminal Reason for Denial					
	Domestic Violence Misdemeanor	Drug Prohibitor	Felony	Identification for Firearms Sales (IFFS)[1]	Other	Total
Domestic Violence Restraining Order	8	5	168	35	2	218
Fugitive from Justice	0	6	222	96	3	327
Total	8	11	390	131	5	545

Note:

1. An FBI program requiring participants to identify (i.e., "flag") persons disqualified from taking possession of a firearm when submitting their criminal records to III.

Table 8. Simple Pre-Post Design: Comparative Statistics

Measure	During the Five Years Before Denial Date	During the Five Years After Denial Date	Percent Change	Statistical Significance (p-value)
Persons Denied for Criminal Reason	66,115	66,115	--	--
Arrests	47,950	44,229	-7.8%	$p \leq 2.54E\text{-}124$
Average Arrests per Person per Year	0.73	0.67	-7.8%	$p \leq 2.54E\text{-}124$
"Lie-and-Try" Arrests	1	171	--	$p \leq 6.4E\text{-}42$
Firearm-Related Arrests	1,160	2,094	80.5%	$p \leq 4.8E\text{-}81$

Table 9. Corrected Pre-Post Analysis

All results are significant at 95% level		**Number of Previous Arrests of Denied Persons**	
		Not Controlled	**Controlled**
Age of Denied Persons	**Not Controlled**	30.3% *lower* risk of arrest for any crime after denial than before	11.5% *higher* risk of arrest for any crime after denial than before
	Controlled	9.5% *higher* risk of arrest for any crime after denial than before	28.3% *higher* risk of arrest for any crime after denial than before