

Prior Misdemeanor Convictions as a Risk Factor for Later Violent and Firearm-Related Criminal Activity Among Authorized Purchasers of Handguns

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Context.—Under current federal law, many persons with prior convictions for misdemeanor offenses pass criminal records background checks and legally purchase handguns.

Objective.—To determine whether authorized handgun purchasers with prior misdemeanor convictions are more likely than those with no criminal history to be charged with new crimes, particularly offenses involving firearms and violence.

Design.—Retrospective cohort study.

Setting and Participants.—A total of 5923 authorized purchasers of handguns in California in 1977 who were younger than 50 years, identified by random sample.

Main Outcome Measures.—Incidence and relative risk (RR) of first charges for new criminal offenses after handgun purchase.

Results.—Of the 5923 authorized purchasers, 3128 had at least 1 conviction for a misdemeanor offense prior to handgun purchase, and 2795 had no prior criminal history. Follow-up to the end of the 15-year observation period or to death was available for 77.8% of study subjects and for a median 8.9 years for another 9.6%. Handgun purchasers with at least 1 prior misdemeanor conviction were more than 7 times as likely as those with no prior criminal history to be charged with a new offense after handgun purchase (RR, 7.5; 95% confidence interval [CI], 6.6-8.7). Among men, those with 2 or more prior convictions for misdemeanor violence were at greatest risk for nonviolent firearm-related offenses such as weapon carrying (RR, 11.7; 95% CI, 6.8-20.0), violent offenses generally (RR, 10.4; 95% CI, 6.9-15.8), and Violent Crime Index offenses (murder or non-negligent manslaughter, forcible rape, robbery, or aggravated assault) (RR, 15.1; 95% CI, 9.4-24.3). However, even handgun purchasers with only 1 prior misdemeanor conviction and no convictions for offenses involving firearms or violence were nearly 5 times as likely as those with no prior criminal history to be charged with new offenses involving firearms or violence.

Conclusions.—Handgun purchasers with prior misdemeanor convictions are at increased risk for future criminal activity, including violent and firearm-related crimes.

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IN 1995, 1.2 million firearm-related violent crimes were committed in the United States, including 13 673 firearm

homicides.^{1,2} In 1994, an estimated 60 900 persons were treated in hospital emergency departments for nonfatal gunshot wounds received during an assault; 60% required hospitalization.³

One generally accepted policy to prevent firearm-related violence is to prohibit the purchase of guns by persons believed to be at high risk for future criminal activity. The Gun Control Act of 1968⁴ outlaws the purchase and possession of firearms by felons, fugitives

from justice, persons adjudicated to be mentally ill, and others. Under the provisions of the Brady Handgun Violence Prevention Act,⁵ background checks of prospective handgun purchasers are conducted nationwide. They identify approximately 70 000 prohibited persons each year, most of whom have been convicted of felonies.⁶⁻⁸

For editorial comment see p 2120.

It is a common misperception that such policies prohibit gun purchase by all but the law-abiding. In fact, many thousands of persons with a history of criminal activity legally purchase firearms every year. It is well established that persons with a history of even a single prior arrest are, as a group, substantially more likely than persons with no such history to engage in criminal behavior in the future.⁹⁻¹² The possibility therefore exists that some authorized handgun purchasers are at higher risk than others for later criminal activity. This is not just a theoretical concern; it has been noted that “a considerable fraction of people who commit violent crimes are legally entitled to own guns.”¹³

To study this issue, we undertook a long-term retrospective cohort study of criminal activity among 5923 persons younger than 50 years who legally purchased handguns in California in 1977, with follow-up through the end of 1991. The study population included 3128 handgun purchasers with at least 1 prior conviction for a misdemeanor offense and 2795 handgun purchasers with no prior criminal history. (Misdemeanors are less serious crimes than felonies; they are punishable by incarceration, typically in a local facility and for 1 year or less.¹⁴) All these purchasers passed a criminal rec-

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ords background check that applied the criteria in the Gun Control Act of 1968, which differ only slightly to those currently in force under federal law.

Our hypotheses were that (1) handgun purchasers with prior misdemeanor convictions would be at increased risk for later criminal activity, particularly for violent and firearm-related offenses, (2) the increase in risk would be related inversely to age and directly to the number of prior convictions that subjects had received, and (3) purchasers with prior convictions for offenses involving firearms or violence would be at greatest risk for such offenses after handgun purchase.

METHODS

Sampling and Cohort Formation

The study population was identified by random sampling from a computerized registry of all persons who purchased a handgun from a licensed firearms dealer in California in 1977, the first year such a registry was compiled. Duplicate entries for persons who purchased more than 1 handgun that year were removed prior to sampling. The remaining entries were stratified by a notation that, when present, indicated that the purchaser had a record on file with the California Department of Justice (CDOJ) at the time of handgun purchase and may have had a criminal history at that time. One sample was drawn from each stratum.

Preliminary sampling suggested that approximately half of all handgun purchasers with any prior criminal history had been charged with an offense involving firearms or violence. Sample sizes were planned to maximize statistical power for comparisons involving this subgroup, with the size of the cohort sufficient to detect a relative risk (RR), depending on the incidence of a specific outcome event, of 1.5 or higher with an α of .05 and a power of 0.8 or higher.¹⁵

Criminal records were requested for all sampled purchasers, and final determination of eligibility and study group assignment was made only after the records had been obtained and reviewed. Of 3002 sampled persons (among 126 903 eligible) whose registry entries did not indicate that a record was on file at CDOJ, 41 were found to have had a criminal history at the time of handgun purchase and were assigned to that study group. Of 16 637 sampled persons (among 45 472 eligible) whose registry entries indicated a record was on file at CDOJ, 7095 were found to have no criminal history at the time of handgun purchase; their records were related to employment screening or other matters. A random sample of 435 of these were assigned to the no prior

criminal history study group, such that these purchasers were appropriately represented in that group, and the rest were excluded.

This initial review of criminal records also identified 4162 persons who were found to have had a criminal history prior to handgun purchase but whose records had subsequently been purged and were not available. The CDOJ periodically reviews a portion of its inactive criminal records and purges those that meet defined criteria. Records must be retained for specified periods after an arrest or conviction; the retention period is contingent on the nature and the severity of the offense.¹⁶ In practice, CDOJ's purging program focuses on records for the oldest persons in its file. Among our potential study subjects, the proportion whose records had been purged was substantially higher for those 50 years or older than for younger handgun purchasers. We therefore excluded from the study all persons who were 50 years or older at the time of handgun purchase. There remained 2555 persons younger than 50 years whose criminal records had been purged.

Another 1148 handgun purchasers were excluded because, while they had previously been arrested, they had not been convicted of any crime prior to purchasing their handguns. A total of 276 persons were excluded because it could not be determined whether they had a criminal history at the time of handgun purchase, another 85 because their records were missing for unknown reasons, and 25 because they never received their guns or transferred them to other owners shortly after purchase.

Data Acquisition and Management

Senior CDOJ criminal records technicians trained our project staff in criminal record review, and ambiguous criminal records were discussed with CDOJ staff. We used double data entry procedures for all study data sets, with computerized and manual comparisons.

All convictions and charges were recorded. Convictions were not counted as evidence of prior criminal activity if they had also been dismissed before handgun purchase. A charge for a new offense during the period of follow-up was considered to be evidence of new criminal activity.

Crimes were grouped into the following classes: those involving neither firearms nor violence (eg, petty theft, driving under the influence of alcohol), those involving firearms but not violence (eg, carrying a concealed firearm in a public place), those involving violence (eg, simple assault, robbery) and, as a subset of violent offenses, those classified by the Fed-

eral Bureau of Investigation as Violent Crime Index offenses: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault.

Similarly, subjects with prior misdemeanor convictions were grouped by whether they had been convicted of firearm-related or violent offenses as follows: (1) prior conviction(s), but none for offenses involving either firearms or violence; (2) prior conviction(s) involving firearms, but none involving violence; and (3) prior conviction(s) involving violence. No subgroup of subjects with prior convictions involving violence, but none involving firearms, could be established as it was not possible to distinguish between violent offenses that involved firearms and those that did not. For example, of 843 charges of assault with a deadly weapon filed against study subjects, only 158 (18.7%) specified the nature of the weapon.

The follow-up period began 15 days following application for handgun purchase, the first day on which legal acquisition of the handgun could have occurred, and ended December 31, 1991. Only arrests occurring in California were eligible for consideration as outcome events since reliable data were not available for events occurring elsewhere. Subjects were considered to be at risk for those events for only so long as their continued residence in California could be verified independently. This was done by linkage to the state's driver's license records, credit agency data, registries of property owners, telephone directories, city directories, and state and national mortality files.

This study was approved by the University of California, Davis, Human Subjects Review Committee.

Statistical Analysis

The main outcome event was the first occurrence of a charge for a new offense. Observed incidence density rate data were used to estimate RRs by Poisson regression,¹⁵ with adjustment for sex, race, age at purchase, and time since purchase, and stratification by the type and number of offenses for which subjects had previously been convicted. Interactions between the demographic variables and criminal history were incorporated when necessary. Confidence intervals (CIs) were calculated using likelihood methods. Goodness of fit was assessed by likelihood ratio statistics and residual analysis.

In a separate analysis, these results were weighted to account for the handgun purchasers who were known to have a criminal history at the time of handgun purchase but whose records had been purged. This was accomplished as follows. First, of all potential subjects

younger than 50 years in our initial criminal records review who had any arrest or conviction history at the time of handgun purchase and whose records were available, we identified 1301 "purge-eligible" persons whose criminal records met all the CDOJ criteria for purging. Of these, 744 persons with at least 1 misdemeanor conviction had been enrolled as study subjects. We calculated, on an age-, race-, and sex-specific basis, the proportion of the 1301 purge-eligible persons who had prior misdemeanor convictions and applied these proportions to the 2555 handgun purchasers whose records had been purged. We estimated on that basis that 1455 of these 2555 handgun purchasers had prior misdemeanor convictions.

Separate rates and RRs were then calculated for the purge-eligible study subjects and for those who were not eligible for purging. We took a weighted average of these results to estimate rates and RRs for all handgun purchasers having a prior misdemeanor conviction, including those whose records had been purged. In each separate analysis, the weights assigned to the results for the purge-eligible subjects were proportionate to the entire estimated percentage of handgun purchasers in that analysis whose records had met the criteria for purging—both the purge-eligible study subjects and persons whose records had actually been purged.

These procedures assumed that CDOJ staff, having determined which criminal records were eligible for purging, exercised no selection bias in determining which records would actually be purged. We therefore also conducted a sensitivity analysis to estimate the maximum effect due to potential selection bias, in which we adopted the extreme assumption that no purchaser whose record had been purged was charged with any criminal activity after handgun purchase.

RESULTS

By extrapolation from our samples, we estimate that of 139 052 handgun purchasers younger than 50 years in California in 1977, 13 750 (9.9%) had at least 1 prior misdemeanor conviction and 118 560 (85.3%) had no prior criminal history. (The remaining handgun purchasers had previously been arrested, but had no prior convictions.) Our study population of 5923 included 3128 handgun purchasers who were known to have had at least 1 misdemeanor conviction prior to handgun purchase and 2795 who had no prior criminal history. Demographic differences between the study groups, and between subjects whose records were eligible for purging and handgun purchasers whose criminal records

Table 1.—Demographic Characteristics of Handgun Purchaser Study Groups*

Characteristic	No Prior Criminal History (n = 2795)	Prior Misdemeanor Conviction (n = 3128)		Records Purged† (n = 2555)
		Not Eligible for Purging (n = 2384)	Purge-Eligible (n = 744)	
Age, mean (± SD), y	31.8 ± 8.0	32.3 ± 8.1	31.6 ± 7.7	30.9 ± 7.9
Sex				
Men	2374 (85)	2228 (94)	709 (95)	2382 (93)
Women	421 (15)	156 (6)	35 (5)	173 (7)
Race				
White	1970 (71)	1347 (57)	532 (71)	1651 (65)
Black	194 (7)	357 (15)	64 (9)	271 (11)
Hispanic	428 (15)	582 (24)	117 (16)	430 (17)
Other or unknown	203 (7)	85 (4)	31 (4)	203 (8)

*Values are number (percentage) unless otherwise indicated.

†Data are presented for the entire population of 2555 handgun purchasers whose prior criminal records were purged; an estimated 1455 persons in this group had misdemeanor convictions prior to handgun purchase. Race values were extrapolated from an equal probability sample of 226 subjects.

Table 2.—Estimated Aggregate Criminal History Characteristics, at the Time of Purchase, of 3128 Handgun Purchasers Who Had at Least 1 Prior Misdemeanor Conviction

Nature of Prior Convictions	No. of Prior		Median No. (Range)*	
	Convictions	Charges	Convictions	Charges
Any offense	7907	15 868	2 (1-33)	3 (1-56)
Nonviolent firearm offense	337	590	1 (1-4)	1 (1-8)
Violent offense	672	2179	1 (1-6)	1 (1-12)
Violent Crime Index offense	118	794	1 (1-2)	1 (1-7)

*Among persons having convictions or charges for such offenses.

Table 3.—Handgun Purchasers Charged With New Criminal Activity Over 15 Years From Earliest Possible Date of Handgun Acquisition*

Study Group	Nature of New Offense, No. (%)			
	Any Offense	Nonviolent Firearm Offense	Violent Offense	Violent Crime Index Offense
Prior misdemeanor conviction†	1379 (50.4)	361 (13.2)	682 (24.9)	421 (15.4)
No prior criminal history‡	239 (9.8)	50 (2.0)	108 (4.4)	60 (2.5)

*Results are only for subjects with independent verification of continued residence in California.

†Total number of handgun purchasers with prior misdemeanor conviction is 2735.

‡Total number of handgun purchasers with no prior criminal history is 2442.

had been purged, were relatively minor (Table 1).

Independent evidence of subjects' continued residence in California for the entire period of follow-up or to their deaths was available for 77.8% of study subjects. Another 9.6% of subjects were confirmed as remaining in the state for part of the follow-up period (median, 8.9 years).

As of their date of application for handgun purchase, the 3128 handgun purchasers with at least 1 prior conviction for a misdemeanor offense had amassed 7907 such convictions in total, including 337 for nonviolent firearm-related offenses and 672 for violent offenses (Table 2). A total of 1628 (52.0%) of 3128 persons had been convicted of 2 or more offenses. In total, 15 868 criminal charges had been filed against these handgun purchasers (Table 2). Felony charges had been filed against 1631 persons (52.1%), more than once for 826 persons (26.4%), and 576 persons (18.4%) had been charged with a Violent Crime Index offense.

In the first year of follow-up, 18.5% of purchasers with at least 1 prior misdemeanor conviction, and 1.6% of those with no criminal history, were charged with at least 1 new offense. By the end of the study period these proportions had risen to 50.4% and 9.8%, respectively (Table 3). Multiple new arrest charges were filed against 33.4% of purchasers with at least 1 prior misdemeanor conviction and 5.1% of those with no prior criminal history.

Handgun purchasers with at least 1 prior misdemeanor conviction were more than 7 times as likely as purchasers with no prior criminal history to be charged with a new offense (RR, 7.5; 95% CI, 6.6-8.7). Relative risk was not related to age and was moderately related to sex and race (Table 4). Men were also at increased risk for nonviolent firearm offenses (RR, 6.3; 95% CI, 4.7-8.5), violent offenses (RR, 6.1; 95% CI, 4.9-7.5), and Violent Crime Index offenses (RR, 6.3; 95% CI, 4.8-8.3) (insufficient data were available to calculate results for women).

Table 4.—Relative Risk for a First Charge of Any New Offense for Handgun Purchasers Who Had a Prior Misdemeanor Conviction, Compared With Those Without a Criminal History, Over 15 Years From the Earliest Possible Date of Handgun Acquisition

Characteristic	Relative Risk (95% Confidence Interval)
All purchasers*†	7.5 (6.6-8.7)
Age <30 y	7.3 (6.1-8.7)
Age ≥30 y	7.9 (6.4-9.8)
Men*	7.1 (6.1-8.2)
White	7.4 (6.2-9.0)
Black	3.3 (2.3-4.8)
Hispanic	5.8 (4.3-7.8)
Other	13.7 (7.0-26.9)
Women*‡	11.7 (7.2-18.9)

*Adjusted for age and time elapsed since handgun purchase.

†Adjusted for race and time elapsed since handgun purchase.

‡Too few subjects to generate results by race.

The RR of being charged with a new offense was strongly and directly related to the number of prior convictions (Table 5). Subjects with only 1 prior conviction, and none involving either firearms or violence, were at increased risk for non-violent firearm offenses (RR, 4.8; 95% CI, 3.4-6.7), violent offenses (RR, 4.8; 95% CI, 3.8-6.0), and Violent Crime Index offenses (RR, 5.0; 95% CI, 3.7-6.8). A history of more than 1 prior conviction for offenses of any 1 type predicted a still greater RR of being charged with new offenses of all types. Persons with 2 or more prior convictions for violent offenses were at greatest risk for new offenses, particularly nonviolent firearm offenses (RR, 11.7; 95% CI, 6.8-20.0) and Violent Crime Index offenses (RR, 15.1; 95% CI, 9.4-24.3).

Relative risks remained high in the weighted analysis, which assumed that the risk for new criminal activity among handgun purchasers whose criminal records had been purged was equal to that of study subjects whose records were eligible for purging. Under this assumption, handgun purchasers with at least 1 prior conviction were more than 4 times as likely to be charged with a new offense (RR, 4.3). Men were also at increased risk for nonviolent firearm offenses (RR, 3.0), violent offenses (RR, 2.1), and Violent Crime Index offenses (RR, 4.1).

Relative risks were lower in the sensitivity analysis, which assumed that no handgun purchaser whose criminal record had been purged had been charged with a new offense after handgun purchase. Handgun purchasers with at least 1 prior misdemeanor conviction remained twice as likely as those with no criminal history to be charged with a new offense (RR, 2.4). Men remained at increased risk for nonviolent firearm offenses (RR, 1.8), violent offenses generally (RR, 1.2), and Violent Crime Index offenses (RR, 4.1).

Table 5.—Relative Risk for a First Charge for a New Offense for Handgun Purchasers Who Had 1 or More Prior Misdemeanor Convictions, Compared With Those Without a Prior Criminal History, Over 15 Years From the Earliest Possible Date of Handgun Acquisition*

Type and No. of Prior Conviction(s)	Relative Risk (95% Confidence Interval) for Occurrence of a First New Offense			
	Any Offense	Nonviolent Firearm Offense	Violent Offense	Violent Crime Index Offense
Any conviction(s)				
1	5.9 (5.1-6.9)	5.0 (3.6-7.0)	5.0 (4.0-6.2)	5.1 (3.8-6.9)
≥2	8.4 (7.2-9.8)	7.7 (5.6-10.5)	7.3 (5.9-9.1)	7.6 (5.7-10.2)
Conviction(s), none involving firearms or violence				
1	5.9 (5.0-6.9)	4.8 (3.4-6.7)	4.8 (3.8-6.0)	5.0 (3.7-6.8)
≥2	7.8 (6.7-9.2)	6.5 (4.7-9.1)	6.8 (5.4-8.6)	6.4 (4.7-8.7)
Conviction(s) involving firearms, but none involving violence				
1	6.4 (4.9-8.2)	7.7 (4.8-12.3)	4.4 (3.0-6.6)	5.2 (3.1-8.5)
≥2	10.9 (6.0-20.0)	14.7 (5.8-36.9)	13.0 (6.3-26.7)	12.4 (5.0-31.0)
Conviction(s) involving violence				
1	9.3 (7.7-11.3)	8.7 (6.0-12.6)	8.9 (6.8-11.6)	9.4 (6.6-13.3)
≥2	11.3 (8.3-15.3)	11.7 (6.8-20.0)	10.4 (6.9-15.8)	15.1 (9.4-24.3)

*Data are for males only. Results are adjusted for age and time elapsed since handgun purchase.

COMMENT

Under current federal law, persons who have been convicted of misdemeanor crimes, including violent crimes and those involving firearms, generally remain eligible to purchase handguns. In our study population, handgun purchasers with prior misdemeanor convictions had substantially higher rates of criminal activity after handgun purchase than did purchasers with no prior criminal history. Overall a strong dose-response relationship between extent of prior criminal history and risk for later criminal activity was observed. Handgun purchasers who had more than 1 prior conviction for a violent offense were more than 10 times as likely to be charged with new criminal activity, and 15 times as likely to be charged with murder, rape, robbery, or aggravated assault, as were those with no prior criminal history. But those whose prior misdemeanor convictions did not involve firearms or violence were also at increased risk for those types of offenses after handgun purchase. And handgun purchasers who had prior convictions for nonviolent firearm-related offenses such as carrying concealed firearms in public, but none for violent offenses, were at increased risk for later violent offenses.

At the same time, it is important to note that most handgun purchasers in this study—approximately 50% of those with a misdemeanor conviction at the time of handgun purchase and more than 90% of those with no prior criminal history—were not charged with new criminal activity after purchasing their handguns.

Our findings of a dose-response relationship and of an increase in risk for new criminal activity among handgun purchasers with relatively minor prior criminal records are similar to those from

studies of recurrent criminal behavior in other populations.^{9-12,17-19} Our estimates of the low incidence of new criminal activity among handgun purchasers with no prior criminal history also appear to be similar to those from general population studies.²⁰⁻²² This is not surprising, as more than 40% of adults in the United States live in a household with firearms and 25% own a firearm themselves.^{23,24}

We chose to require a conviction as evidence of prior criminal activity and used arrest as a measure of new criminal activity. In the former case, our decision is consonant with public policies pertaining to the criminal history screening of prospective handgun purchasers where prior conviction (or felony indictment), rather than arrest, is the standard on which eligibility to purchase is determined. The use of arrest as a measure of recurrent criminal activity, or recidivism, is common in criminologic research.^{9-12,17-22} The probability of type I error (classifying a subject as having committed a new crime when he/she has not) based on the use of arrest is considered to be substantially less than the probability of type II error (classifying a subject as not having committed a new crime when he/she has) based on the use of conviction.^{19,25}

Criminal records had been purged for a sizeable number of handgun purchasers who would otherwise have been eligible for this study. This injects a level of uncertainty into our final findings that cannot be completely quantified. However, our weighted analysis and particularly our sensitivity analysis, which relied on the extreme assumption that none of these handgun purchasers was charged with any crimes after handgun purchase, still found that handgun purchasers with prior misdemeanor conviction

tions were at increased risk for later criminal activity.

The question arises of whether our results for persons who purchased handguns in 1977 are applicable to present handgun buyers. However, the criteria under which our subjects passed a background check differ only slightly from those that remain in force today at the federal level and in most states.

Several sources of conservatism in our results deserve mention. First, handgun purchasers with prior misdemeanor convictions in other states would have been classified by us as having no prior criminal history if those convictions did not appear on their California criminal records. Continuing criminal activity by even a small number of such subjects would have substantially increased the observed rate of new criminal activity among purchasers classified as having no prior criminal history; the RRs reported herein would then be underestimates. Second, we were not able to present results for offenses involving both firearms and violence with which subjects were charged, either before or after handgun purchase. In our data, only 18.7% of charges of assault with a deadly weapon specified the type of weapon involved, and only 5.3% were reported to involve a firearm. Nationally, approximately 20% of such offenses involved a

firearm.²⁶ Finally, we studied only the incidence of first offenses following handgun purchase and did not provide data on the total number of new offenses with which the handgun purchasers in our study population were charged.

Long-standing federal and state statutes deny the purchase of firearms to persons who, as a result of their prior criminal history or for other reasons, are considered to be at unacceptably high risk for later criminal activity. Our findings indicate that the characterization of high risk also applies to handgun purchasers with prior convictions for misdemeanor offenses, regardless of the nature of those offenses. Whether or not that increased risk is acceptable is a public policy decision. We note that in 1996, Congress acted to deny handgun purchase to persons with misdemeanor domestic violence convictions.²⁷ California and other states now include prior convictions for selected violent misdemeanors as grounds for denial of handgun purchase.²⁸

Expanding the criteria for denial of handgun purchase would complicate the process of screening prospective handgun purchasers. The Brady Handgun Violence Prevention Act of 1994 requires that an "instant check" screening of prospective handgun purchasers be implemented.⁵ That system became operational on November 30, 1998. It would not

be feasible either at present or in the near future to implement an "instant check" system to identify prospective handgun purchasers with prior misdemeanor convictions.^{29,30}

Results of a new nationwide survey indicate that, depending on the nature of the offense, as much as 95% of the population—and 91% of gun owners—support prohibiting the purchase of firearms by persons convicted of misdemeanor crimes.³¹ And there now is evidence that denial of handgun purchase reduces the incidence of subsequent criminal activity among high-risk persons.³² These findings might justify expanding the criteria for denial of handgun purchase, even if a waiting period for handgun purchase remained necessary as a result.

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