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10 IN THE UNITED STATES DISTRICT COURT  
11 FOR THE SOUTHERN DISTRICT OF CALIFORNIA  
12  
13  
14

15 **MATTHEW JONES; et al.,**

16 Plaintiffs,

17 v.

18 **XAVIER BECERRA, in his official**  
19 **capacity as Attorney General of the**  
20 **State of California, et al.,**

21 Defendants.  
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3:19-cv-01226-L-AHG

**DEFENDANTS' OPPOSITION TO  
PLAINTIFFS' MOTION FOR  
PRELIMINARY INJUNCTION**

Judge: Hon. M. James Lorenz and  
Magistrate Judge Barbara  
Lynn Major

Action  
Filed: July 1, 2019

Second Amended Complaint  
Filed and  
Served: November 8, 2019

No hearing set for this motion pursuant  
to Dkt. 23.

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## INTRODUCTION

The Legislature enacted SB 1100 and SB 61 to serve public safety goals. These reasonable public safety laws should not be enjoined while this lawsuit proceeds. The new limitation in California Penal Code § 27510, as amended by SB 1100, promotes safety and responsible firearm ownership and use by restricting firearm transfers by licensed firearms dealers to young adults aged 18-20 (“Young Adults”). The law imposes only modest restrictions; it is not an outright ban as Plaintiffs contend. Rather, SB 1100 permits the sale, rental, delivery, or transfer of long guns to those with valid, unexpired hunting licenses (with prerequisite training), young people currently serving in law enforcement or the armed forces, and young people who have been honorably discharged from the armed forces or reserves. Cal. Pen. Code § 27510(b)(1) & (2). Those Young Adults who wish to purchase long guns who do not currently or have not previously served in law enforcement, the armed forces, or the reserves thus may become eligible to purchase long guns by simply taking a hunter education course and paying a modest fee for a hunting license.

The narrow additional limitation related to semi-automatic centerfire rifles imposed by SB 61 is a common sense measure that ensures that only those Young Adults with adequate training are able to purchase from FFLs semi-automatic centerfire rifles capable of inflicting serious injury. And neither SB 1100 nor SB 61 foreclosed firearms transfers to Young Adults through immediate family.

Plaintiffs are not entitled to the broad relief they seek—a court order enjoining enforcement of the age-based restrictions of Section 27510 in all applications. Plaintiffs cannot show that they are likely to succeed on the merits of their claims, as every court to have considered similar restrictions on commercial transactions through federally licensed dealers has upheld them under intermediate scrutiny.

Plaintiffs also cannot meet their burden to establish the other preliminary injunction factors. Their claimed irreparable harm relies solely on their arguments

on the merits, and fails for the same reasons. The balance of the equities and public interest both weigh against enjoining enforcement of laws that promote firearm safety education and limited access to dangerous semi-automatic centerfire rifles for those in an age group the social science shows is disproportionately disposed to violence and irresponsible, impulsive, or reckless behavior. This Court should therefore deny Plaintiffs’ motion.

## BACKGROUND

### I. CHALLENGED LAWS

#### A. SB 1100 Imposed Modest Restrictions on FFL sales and Transfers to Young Adults Aged 18-20

On September 28, 2018, then-Governor Edmund G. Brown, Jr. signed into law Senate Bill 1100 (“SB 1100”, 2017-2018 Reg. Sess.). As relevant here, SB 1100 amended California Penal Code Section 27510 to add age-based restrictions for the sale or transfer of long guns by a federally licensed firearms dealer in California (“FFL”). More specifically, SB 1100 amended Section 27510 to prohibit licensed firearms dealers from selling or otherwise transferring any firearm to any person under the age of 21, but permits otherwise lawful transfers to Young Adults in certain circumstances described below. SB 1100’s amendments to Section 27510 became effective January 1, 2019.

Regarding long guns in particular, Section 27510’s restriction on sales or transfers of long guns from FFLs to Young Adults does not apply to several categories of persons older than 18 years of age who are subject to firearm safety education and training, including: a person who “possesses a valid, unexpired hunting license issued by the Department of Fish and Wildlife” (Cal. Pen. Code § 27510(b)(1)); an active peace officer authorized to carry a firearm (*id.* § 27510(b)(2)(A)); “[a]n active federal officer or law enforcement agent” (*id.* § 27510(b)(2)(B)); “[a] reserve peace officer” (*id.* § 27510(b)(2)(C)); an active member of “the United States Armed Forces, the National Guard, the Air National

Guard, or active reserve components of the United States” (*id.* § 27510(b)(2)(D)); or “an honorably discharged member of the United States Armed Forces, the National Guard, the Air National Guard, or the active reserve components of the United States” (*id.* § 27510(b)(2)(E)).

Section 27510 regulates *only* conduct of the *dealer*—Section 27510 does not expressly regulate anyone else of *any* age.

**B. SB 61 Will Impose a Narrow Further Restriction on FFL Sales and Transfers of a Subset of Semi-Automatic Long Guns**

Under SB 61, an FFL may not transfer semi-automatic centerfire rifles to any person under the age of 21. While exemptions are available for law enforcement officers and active and reserve members of the Armed Forces described in the current version of Section 27510, subdivision (b)(3), under SB 61, neither the hunting license exemption nor the exemption for retired members of the Armed Forces in Section 27510 will extend to transfers of semi-automatic centerfire rifles. SB 61’s amendments to Section 27510 will become effective January 1, 2020.

**C. Section 27510 Imposes Only Modest Restrictions and Preserves for Young Adults the Rights to Possess, Use, and Acquire Handguns and Long Guns, Including Semi-Automatic Centerfire Rifles**

In addition to the express exemptions set forth in the text of Section 27510, SB 1100’s and SB 61’s amendments preserve several avenues for Young Adults to own, inherit, borrow, possess, and use both handguns and long guns (including semi-automatic centerfire rifles). Although most sales and transfers of firearms in California must be made through a FFL (*see* Cal. Pen. Code § 27545), there are several provisions permitting Young Adults to receive firearms without having to effect any transfer or loan through a FFL. Because these transfers may occur without the FFL as intermediary, the limitations of Section 27510 do not apply:

- Young Adults may receive transfers of handguns and long guns from an immediate family member—defined as a parent or grandparent—“by gift, bequest, intestate succession, or other means from one individual to another[.]” Cal. Pen. Code § 27585; Cal. Pen. Code § 16720.



- 1 • Young Adults may also receive a handgun or long gun from a spouse. Cal.  
2 Pen. Code § 27585 (providing that transfer need not be through licensed dealer  
3 where the recipient “takes title or possession of a firearm by operation of  
4 law”); Cal. Pen. Code §16960(g) (“operation of law” includes transfer by  
5 “transmutation of property between spouses”).
- 6 • Young Adults not otherwise prohibited by state or federal law from  
7 possessing, receiving, owning, or purchasing a firearm also may be loaned  
8 firearms by parents, siblings, grandparents, spouses, registered domestic  
9 partners, and others for up to 30 days, Cal. Pen. Code § 27880, and they may  
10 be loaned firearms by other people for up to three days at a time if the Young  
11 Adult handles and uses the firearm in the presence of the person loaning the  
12 firearm, Cal. Pen. Code § 27885.
- 13 • And Young Adults may be loaned firearms  
14 for the purposes of shooting at targets if the loan occurs on the  
15 premises of a target facility that holds a business or regulatory license  
16 or on the premises of any club or organization organized for the  
17 purposes of practicing shooting at targets upon established ranges,  
18 whether public or private, if the firearm is at all times kept within the  
19 premises of the target range or on the premises of the club or  
20 organization.  
21 Cal. Pen. Code § 27910; Cal. Pen. Code § 26545 (providing that no federal or  
22 state dealer license is required to loan firearms for target shooting). Even  
23 Young Adults without valid hunting licenses may have lawful opportunities to  
24 practice shooting with loaned firearms.

## 19 **II. RELEVANT PROCEDURAL HISTORY**

20 Plaintiffs filed their initial complaint challenging SB 1100’s amendments to  
21 Section 27510 on July 1, 2019 (ECF No. 1), but never served the initial complaint  
22 or any summons thereon (ECF No. 5 at 1, n.2). Instead, Plaintiffs filed a First  
23 Amended Complaint for Declaratory and Injunctive Relief a full month later on  
24 July 30, 2019, and served the FAC and summons on August 1, 2019. (ECF No. 3;  
25 ECF No. 5 at 1, n.2.) Plaintiffs waited until October 4, 2019 to file their first  
26 preliminary injunction motion—*more than nine months* after SB 1100 took effect,  
27 and more than a year after SB 1100 was signed into law. (ECF Nos. 12, 12-1.)

28 Following Governor Newsom’s signing of SB 61, Plaintiffs withdrew their

1 initial motion for preliminary injunction regarding SB 1100's amendments to  
 2 Section 27510 on October 18, 2019 in light of their desire to file an amended  
 3 complaint addressing SB 61's further amendments. (ECF No. 16.) Plaintiffs filed  
 4 their Second Amended Complaint (SAC) three weeks later, on November 8, 2019  
 5 (ECF No. 20), and did not file the instant motion for preliminary injunction until  
 6 November 12, 2019 (ECF No. 21.)

## 7 **LEGAL STANDARD**

8 "A preliminary injunction is an extraordinary remedy never awarded as of  
 9 right." *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 24 (2008). Plaintiffs  
 10 seeking an injunction bear the burden of establishing that: (1) their claims are  
 11 likely to succeed on the merits; (2) they will likely suffer irreparable harm in the  
 12 absence of preliminary relief; (3) the balance of equities tips in their favor; *and*  
 13 (4) an injunction is in the public interest. *Id.* at 20. Alternatively, "[a] preliminary  
 14 injunction is appropriate when a plaintiff demonstrates that serious questions going  
 15 to the merits were raised and the balance of hardships tips sharply in the plaintiff's  
 16 favor." *Alliance for the Wild Rockies v. Cottrell*, 632 F.3d 1127, 1134-35 (9th Cir.  
 17 2011) (internal citation omitted). Plaintiffs carry the burden to establish that all  
 18 four *Winter* factors tip in their favor. *Id.* at 1135.

## 19 **ARGUMENT**

### 20 **I. PLAINTIFFS CANNOT ESTABLISH A LIKELIHOOD OF SUCCESS ON THE** 21 **MERITS OF THEIR SECOND AMENDMENT CHALLENGE.**

#### 22 **A. The Second Amendment Framework**

23 In *District of Columbia v. Heller*, 554 U.S. 570, 635 (2008), the Supreme  
 24 Court held that "the Second Amendment protects the right to possess a handgun in  
 25 the home for the purpose of self-defense." *McDonald v. Chicago*, 561 U.S. 742,  
 26 791 (2010). "*Heller* indicated that the Second Amendment does not preclude  
 27 certain 'longstanding prohibitions' and 'presumptively lawful regulatory measures,'  
 28 such as . . . 'laws imposing conditions and qualifications on the commercial sale of

1 arms[.]” *Jackson v. City & County of San Francisco*, 746 F.3d 953, 959 (9th Cir.  
2 2014) (quoting *Heller*, 554 U.S. at 626-27 & n.26).

3 To analyze a Second Amendment challenge, courts engage in a two-step  
4 inquiry: first, they ask whether a law burdens the Second Amendment at all; and  
5 second, if it does, they determine the appropriate level of scrutiny. *Teixeira v.*  
6 *County of Alameda*, 873 F.3d 670, 682 (9th Cir. 2017) (en banc).<sup>1</sup>

7 “[C]ourts determine the appropriate level by considering (1) how close the  
8 challenged law comes to the core of the Second Amendment right, and (2) the  
9 severity of the law’s burden on that right.” *Bauer v. Becerra*, 858 F.3d 1216, 1221-  
10 22 (9th Cir. 2017) (quotation marks omitted), *cert. denied*, 138 S. Ct. 982 (2018).  
11 This test “amounts to a sliding scale.” *Id.* at 1222 (quotation marks omitted). “A  
12 law that imposes such a severe restriction on the fundamental right of self defense  
13 of the home that it amounts to a destruction of the Second Amendment right is  
14 unconstitutional under any level of scrutiny.” *Id.* (quotation marks omitted).  
15 “Further down the scale, a law that implicates the core of the Second Amendment  
16 right and severely burdens that right warrants strict scrutiny.” *Id.* “Otherwise,  
17 intermediate scrutiny is appropriate.” *Id.*

18 Section 27510’s narrow age limitations on FFL sales and transfers are the kind  
19 of presumptively lawful statutory provisions that the Supreme Court has said do not  
20 implicate the Second Amendment. *See Jackson*, 746 F.3d at 959. But even if they  
21 did implicate the Second Amendment, these laws would be subject only to, and

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22  
23 <sup>1</sup> Incorrectly casting Section 27510 as a categorical ban on lawful *possession*  
24 of all firearms for *all* people under 21, Plaintiffs suggest that this Court should  
25 “select[]” a framework rooted *solely* in “history and tradition” and eschew any form  
26 of means-end scrutiny rather than conducting the two-step inquiry mandated by  
27 Ninth Circuit precedent and every Circuit Court to have addressed what form of  
28 analysis to apply post-*Heller*. (ECF No. 21-1 (“Mot.”) at 17 [advocating for  
adopting a framework rejected by the majority of the D.C. Circuit in *Heller v.*  
*District of Columbia (Heller II)*, 670 F.3d 1244 (D.C. Cir. 2011), and set forth in a  
dissenting opinion]; *see also* Mot. at 4-5.) As other district courts have noted when  
asked to adopt such an alternative approach, that framework is not “persuasive,”  
and in any case, “the Court is bound by the Ninth Circuit’s two-step inquiry.” *Rupp*  
*v. Becerra*, 401 F. Supp. 3d 978, 985 (C.D. Cal. 2019).

1 satisfy, intermediate scrutiny.

2 **B. Section 27510's Age-Based Restrictions on FFL Sales and**  
 3 **Transfers Are Consistent with Historical Prohibitions and Are**  
 4 **Presumptively Lawful Regulations That Do Not Implicate the**  
 5 **Second Amendment**

6 Where text, history, and tradition show that a challenged law is consistent with  
 7 the Second Amendment, the restriction “‘passes constitutional muster’” and this  
 8 Court’s inquiry “‘is complete.’” *Teixeira*, 873 F.3d at 682; *see Heller*, 554 U.S. at  
 9 626, 627 n.26. Here, California’s modest restrictions on the sale or transfer of long  
 10 guns through licensed dealers to a narrow category of Young Adults aged 18-20 are  
 11 consistent with the “historical understanding” of the right to keep and bear arms.  
 12 *Heller*, 554 U.S. at 625. Thus, Plaintiffs’ challenge to Section 27510 will likely fail  
 13 on the merits at step one of the relevant framework because Section 27510’s age-  
 14 based restriction on sale of long guns to Young Adults does not affect conduct  
 15 within the ambit of the Second Amendment.

16 Indeed, courts addressing similar age-based restrictions on the rights of 18-20  
 17 year-olds to purchase or carry firearms have reasoned that such

18 statutes enacted to safeguard the public using age-based restrictions on  
 19 access to and use of firearms are part of a succession of “longstanding  
 20 prohibitions,” *Heller*, 554 U.S. at 626, 128 S.Ct. 2783, that are likely  
 21 outside the scope of the Second Amendment, because such restrictions  
 22 are “consistent with” both the “longstanding tradition of targeting  
 select groups’ ability to access and to use arms for the sake of public  
 safety” and the “longstanding tradition of age-and safety-based  
 restrictions on the ability to access arms.”

23 *Nat’l Rifle Ass’n of Am., Inc. v. McCraw*, 719 F.3d 338, 347 (5th Cir. 2013)  
 24 (quoting *Nat’l Rifle Ass’n of Am., Inc. v. Bureau of Alcohol, Tobacco, Firearms, &*  
 25 *Explosives*, 700 F.3d 185, 203 (5th Cir. 2012) (*BATF*), *cert. denied*, 571 U.S. 1196  
 26 (2014)).

27 In *BATF*, the Fifth Circuit conducted an exhaustive review of the historical  
 28 context of limitations on the rights of those under the age of 21 in determining

1 whether the federal government’s ban on the sale of handguns to those under the  
 2 age of 21 through FFLs violated the Second Amendment. The Court concluded  
 3 that “[m]odern restrictions on the ability of persons under 21 to purchase  
 4 handguns—and the ability of persons under 18 to possess handguns—seem, to us,  
 5 to be firmly historically rooted.” *BATF*, 700 F.3d at 204. The Court’s conviction  
 6 in this respect was based on an analysis of legal commentary regarding founding-  
 7 era attitudes, nineteenth-century legislators, courts, and commentators, nineteenth-  
 8 century case law evidencing the criminalization of providing firearms and other  
 9 dangerous weapons to minors under the age of 21, and historical evidence showing  
 10 that the age of majority at the founding and through the first half of the 20th century  
 11 was 21, even though younger individuals could serve in militias. *Id.* at 200-04.

12 In evaluating another challenge to the federal ban on handgun sales to those  
 13 under 21 by FFL, a district court in the Western District of Virginia also recently  
 14 stated that “evidence suggests that full adulthood, at the time of the Founding, was  
 15 not reached until age 21.” *Hirschfeld v. Bureau of Alcohol, Tobacco, Firearms &*  
 16 *Explosives*, No. 3:18-CV-00103, 2019 WL 4923955, at \*4 (W.D. Va. Oct. 4, 2019)  
 17 (citing William Blackstone, 1 Commentaries On The Laws Of England 463 (1st ed.  
 18 1765) (“So that full age in male or female, is twenty one years . . . who till that time  
 19 is an infant, and so styled in law.”); *Infant*, Black’s Law Dictionary 847 (11th ed.  
 20 2019) (legal infancy lasts until age 21) (citing sources from 1878, 1899, and 1974));  
 21 *see also id.* (noting that “legal scholars of the time accepted that ‘the State may  
 22 prohibit the sale of arms to minors’” (quoting Thomas M. Cooley, *Treatise on*  
 23 *Constitutional Limitations* 740 n.4 (5th ed. 1883))). And the First Circuit recently  
 24 concluded that limitations on the ability of Young Adults aged 18-20 to carry  
 25 firearms in public were presumptively lawful in light of the relevant historical  
 26 record, including because “[c]ase law from jurisdictions across the country  
 27 confirms that during the late nineteenth and early twentieth centuries”—when  
 28 “minors” included those under 21—“minors’ capacity to purchase and own

1 firearms was significantly curtailed.” *Powell v. Tompkins*, 926 F. Supp. 2d 367,  
 2 387 (D. Mass. 2013), *aff’d*, 783 F.3d 332 (1st Cir. 2015) (citing *United States v.*  
 3 *Rene E.*, 583 F.3d 8, 14-15 (1st Cir. 2009), *cert. denied*, 558 U.S. 1133 (2010)  
 4 (compiling cases); Larry D. Barnett, *The Roots of Law*, 15 Am. U.J. Gender Soc.  
 5 Pol’y & L. 613, 681–86 app. (2007)).

6 These authorities demonstrate that limitations on the ability of those under the  
 7 age of 21 to procure firearms from dealers are consistent with the “historical  
 8 understanding” of the right to keep and bear arms, *Heller*, 554 U.S. at 625, and  
 9 therefore pass constitutional muster without the need for applying any level of  
 10 means-end scrutiny. *See Powell*, 926 F. Supp. 2d at 388 (holding as a matter of law  
 11 at step one that the historical record established that age-based restrictions on  
 12 licenses to carry enacted for purposes of public safety “comport[] with the Second  
 13 Amendment and impose[] no burden on the rights of eighteen- to twenty-year-olds  
 14 to keep and bear arms”).

15 Because section 27510’s age restrictions on FFL sales and transfers impact  
 16 only persons under 21, they are the kind of presumptively lawful statutory  
 17 provisions that the Supreme Court has said do not implicate the Second  
 18 Amendment. Plaintiff’s Second Amendment challenge fails on that basis alone.

19 **C. Assuming the Second Amendment is Implicated at All,**  
 20 **Intermediate Scrutiny Is the Appropriate Standard.**

21 Neither *BATF* nor *Hirschfeld* ended the analysis at step one; while each court  
 22 enunciated a view that the Second Amendment was not implicated by age-based  
 23 restrictions on the sale or purchase of firearms through FFLs, each court proceeded  
 24 to uphold the federal handgun ban after applying intermediate scrutiny. *BATF*, 700  
 25 F.3d at 204; *Hirschfeld*, 2019 WL 4923955, at \*7.

26 “Unquestionably, the challenged [state] laws trigger nothing more than  
 27 ‘intermediate’ scrutiny.” *BATF*, 700 F.3d at 205 (applying intermediate scrutiny to  
 28 federal ban on handgun sales to those under age 21 by FFLs, and upholding the law



1 under that level of scrutiny). The Ninth Circuit’s recent cases have repeatedly held  
 2 that, for purposes of determining an appropriate level of scrutiny, the “core” of the  
 3 Second Amendment right is limited to what *Heller* identified: the right to keep and  
 4 carry “in defense of hearth and home.” *Heller*, 554 U.S. at 635; *see United States v.*  
 5 *Chovan*, 735 F.3d 1127, 1139 (9th Cir. 2013), *cert. denied*, 574 U.S. 878 (2014);  
 6 *Silvester v. Harris*, 843 F.3d 816, 821 (9th Cir. 2016), *cert. denied sub nom.*  
 7 *Silvester v. Becerra*, 138 S.Ct. 945 (2018); *Bauer*, 858 F.3d at 1222; *Pena v.*  
 8 *Lindley*, 898 F.3d 969, 977 (9th Cir. 2018). “[F]irearm regulations which leave  
 9 open alternative channels for self-defense are less likely to place a severe burden on  
 10 the Second Amendment right than those which do not.” *Jackson*, 746 F.3d at 961  
 11 (applying intermediate scrutiny to a regulation imposing conditions on how  
 12 handguns must be stored, because such regulation regulated only the *manner* of  
 13 exercise of the right, and therefore did not substantially burden the core right to use  
 14 a handgun in the home for purposes of self-defense).

15 In keeping with these principles, federal courts have consistently applied  
 16 intermediate scrutiny in the context of Second Amendment challenges to statutory  
 17 limitations on Second Amendment conduct where—as here—such limitations  
 18 affect only the “discrete category” of 18 to 20-year olds, impose only temporary  
 19 limitations, and do not amount to a total ban having the effect of “disarm[ing] an  
 20 entire community.” *BATF*, 700 F.3d at 205; *accord Powell*, 926 F. Supp. 2d at 393.  
 21 Courts consistently reason that where the challenged limitations “only implicate  
 22 commercial transactions: ‘conduct occurring outside the home,’” they do not  
 23 “implicate a core Second Amendment right.” *Hirschfeld*, 2019 WL 4923955, at \*7.  
 24 Courts have repeatedly determined that the federal ban on handgun sales through  
 25 FFLs to Young Adults aged 18-20 warrants—at the most—intermediate scrutiny,  
 26 because such a prohibition involves merely commercial transactions, and because  
 27 “18-to-20-year-olds may possess and use handguns for self-defense, hunting, or  
 28 any other lawful purpose; they may acquire handguns from responsible parents or

guardians; and they may possess, use, and purchase long-guns.” *BATF*, 700 F.3d at 206-07; *Hirschfeld*, 2019 WL 4923955, at \*7. And Courts emphasize that the “temporary nature of the burden reduces its severity.” *BATF*, 700 F.3d at 207.

**D. Section 27510’s Age-Based Restrictions on FFL Sales and Transfers Satisfy Intermediate Scrutiny.**

The intermediate scrutiny “test is not a strict one.” *Silvester*, 843 F.3d at 827. “Intermediate scrutiny requires (1) a significant, substantial, or important government objective, and (2) a ‘reasonable fit’ between the challenged law and the asserted objective.” *Pena*, 898 F.3d at 979. It does not require the fit between the challenged regulation and the stated objective to be perfect, nor does it require that the regulation be the least restrictive means of serving the interest. *Jackson*, 746 F.3d at 969. Rather, the government “must be allowed a reasonable opportunity to experiment with solutions to admittedly serious problems.” *Id.* at 969-70 (quoting *City of Renton v. Playtime Theatres, Inc.*, 475 U.S. 41, 52 (1986)). And in determining whether a law survives intermediate scrutiny, courts “accord substantial deference to the predictive judgments of the legislature.” *Turner Broad. Sys., Inc. v. FCC*, 520 U.S. 180, 195 (1997).

Courts do not look to evidence “in the technical sense” because “legislatures are not obligated, when enacting their statutes, to make a record of the type that an administrative agency or court does to accommodate judicial review[.]” *Pena*, 898 F.3d at 979 (quotation marks omitted). Rather, the State may “rely on any evidence ‘reasonably believed to be relevant’ to substantiate its important interests,” and the Court “may consider ‘the legislative history of the enactment as well as studies in the record or cited in pertinent case law.’” *Fyock v. Sunnyvale*, 779 F.3d 991, 1000 (9th Cir. 2015) (citations omitted).

California has a substantial interest in increasing public safety and preventing gun violence, including but not solely in the context of mass shootings. Section 27510’s narrow limitations on FFL sales and transfers to Young Adults, except as



1 expressly permitted, further those interests by ensuring that those Young Adults  
 2 with access to long guns have had firearm safety training—either because they have  
 3 had training and supervision as a member of law enforcement, the Armed Forces or  
 4 the reserves, or because they have received training by way of a hunter education  
 5 course. The further limitation on commercial sales and transfers by FFLs of semi-  
 6 automatic centerfire rifles also reasonably fit the Legislature’s interest in ensuring  
 7 that weapons capable of quickly inflicting violence on large numbers of people  
 8 remain in the hands of those with proper training.

9 Every challenge to modest restrictions on the ability of Young Adults to  
 10 procure firearms through a FFL has survived intermediate scrutiny, based in large  
 11 part on the fact that—like here—the laws limited access through a dealer, but  
 12 imposed no restriction on the ability of a Young Adult to possess or use a firearm  
 13 for self-defense purposes, and on social science evidence showing that Young  
 14 Adults are both disproportionately linked to crime and also less likely to have  
 15 completely developed those portions of the brain responsible for controlling  
 16 impulsivity, regulating responsible decision-making, and exercising good judgment.  
 17 *See BATF*, 700 F.3d at 211; *Hirschfeld*, 2019 WL 4923955, at \*8; *cf. Horsley v.*  
 18 *Trame*, 808 F.3d 1126, 1133-34 (7th Cir. 2015) (upholding Illinois Firearm Owner's  
 19 Identification Card licensing scheme, which required parental consent for those  
 20 aged 18-20, or approval by the Director of State Police, where the scheme did not  
 21 prohibit possession or use of firearms, but merely required limited burden of  
 22 applying for card.) Section 27510’s modest age restrictions on sale or transfer  
 23 through FFLs likewise strikes a reasonable fit that comports with the Second  
 24 Amendment.

25 **1. Section 27510’s Age-Based Restrictions on FFL Sales and**  
 26 **Transfers Serve California’s Substantial Interest in Public**  
**Safety and Crime Prevention.**

27 “It is beyond question that promoting public safety and reducing incidents of  
 28 gun violence are legitimate government objectives, as the Ninth Circuit, like many

1 other circuits, has found these interests not merely legitimate but substantial or  
 2 compelling.” *Rupp v. Becerra*, No. 8:17-CV-00746-JLS-JDE, 2018 WL 2138452,  
 3 at \*5 (C.D. Cal. May 9, 2018) (citing *Fyock*, 779 F.3d at 1000; *Silvester*, 843 F.3d  
 4 at 827; *Kolbe v. Hogan*, 849 F.3d 114, 139 (4th Cir. 2017)); *see also, e.g., Pena*,  
 5 898 F.3d at 981-82 (“public safety and crime prevention . . . are substantial  
 6 government interests”). And as the Ninth Circuit has recognized, “public safety is  
 7 advanced by keeping guns out of the hands of people who are most likely to misuse  
 8 them[.]” *Bauer*, 858 F.3d at 1223.

9 Plaintiffs do not appear to contest the legitimacy of the Legislature’s interest  
 10 in promoting public safety and the reduction of gun violence in California,  
 11 including the goal of reducing instances of mass shootings in California. (*See Mot.*  
 12 *at 19, 22.*) Nor do Plaintiffs contest that Young Adults aged 18-20 are  
 13 disproportionately linked to violent crime, including committing homicides at a  
 14 “higher rate comparatively.” (*Mot. at 23.*) Rather than disputing that California  
 15 has substantial and compelling interests in promoting public safety and reducing  
 16 gun violence committed by Young Adults, Plaintiffs appear to direct their  
 17 arguments to the “fit” prong of the intermediate scrutiny test. Accordingly,  
 18 Defendants address Plaintiffs’ arguments regarding fit.

## 19 **2. Section 27510’s Age-Based Restrictions on FFL Sales and** 20 **Transfers Reasonably Fit the Public’s Interest in** **Protecting Public Safety and Reducing Gun Violence.**

21 This “‘legislative history of the enactment as well as studies in the record’”  
 22 demonstrates “a ‘reasonable fit between the government’s stated objective[s] and  
 23 the regulation’ considered.” *See Pena*, 898 F.3d at 979 (quoting *Fyock*, 779 F.3d at  
 24 1000). “The State is required to show only that the regulation ‘promotes a  
 25 substantial government interest that would be achieved less effectively absent the  
 26 regulation.” *Silvester*, 843 F.3d at 829 (quoting *Fyock*, 779 F.3d at 1000).  
 27  
 28

**a. There is Substantial Evidence that Young Adults Are Disproportionately Disposed to Harm Themselves or Others, Including Because of Their Incomplete Brain Development**

As the legislative history of SB 1100 confirms, the Legislature intended to bring parity to California restrictions on access to handguns and long guns by Young Adults aged 18-20 by raising the minimum age for sale or transfer of long guns through FFLs. (ECF No. 21-8, Combs Decl., Ex. 2 at 0012.) In doing so, the Legislature aimed to take an important step toward ensuring public safety (ECF No. 21-9, Combs Decl., Ex. 3 at 0015), particularly in light of the propensity of Young Adults aged 18-20 to engage in violent crime, and the developing nature of their brains (ECF No. 21-8, Combs Decl., Ex. 2 at 0011-12.)

Although the author's statement regarding SB 1100 did not reference social science, the legislative history shows that the California Chapters of the Brady Campaign offered the following statistics in support of the age restrictions:

- 11,500 of the 26,682 crime guns entered into the California Department of Justice's Firearms Systems database since 2009 were long guns, demonstrating that long guns are often used in the commission of crimes in California;
- The FBI's 2015 report on Crime in the United States showed that in 2015, "23.4 percent of those arrested for murder and non-negligent manslaughter in the U.S. were under 21 and 26.5 percent of those arrested for 'weapons carrying, possession, etc.' were under age 21" (citing FBI 2015 Crime in the United States, <https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/tables/table-41>);
- Despite making up a large portion of the arrests for violent crimes and weapons crimes and committing 17 percent of gun homicides in the U.S., those aged 18-20 comprised just 4 percent of the U.S. population (citing Uniform Crime Reporting Program Data: Supplementary Homicide Reports, 2015," US Department of Justice, Federal Bureau of Investigation, <https://ucr.fbi.gov/nibrs/addendumfor-submitting-cargo-theft-data/shr>).

(ECF No. 21-8, Combs Decl., Ex. 2 at 0011-12.) The Brady Campaign also emphasized that "[m]aturity, impulsive or reckless behavior, and responsibility vary greatly among 18-20 year olds." (*Id.*)

Updated statistics show that in recent years in which offenses were broken down into individual years, Young Adults aged 18-20 continued to commit a disproportionately large number of violent crimes, and that indeed the ages of 18-20 were the years in which arrests for homicide, rape, and robbery were their highest. (See Rosenberg Decl., Ex. 1, U.S. Department of Justice, *Crime in the United States*, Arrests, by Age, 2017, at Table 38, <https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/tables/table-38>.) In 2017, although 18-20 year-olds comprised less than 5 percent of the U.S. population, they accounted for more than 15 percent of the homicide and manslaughter arrests reported. (*Id.*; see also U.S. Census Bureau, *2017 National Population Projections Datasets* (last revised Sept. 6, 2018), *datasets available at* <https://bit.ly/2JKictP>.) And arrests in California specifically show that Young Adults commit a disproportionately large portion of the homicides here, too; 18-19 year-olds alone accounted for 11.8 percent of the homicide arrests in the entire State. (Rosenberg Decl., Ex. 2, CRIMINAL JUSTICE STATISTICS CENTER, CAL. DEP'T OF JUSTICE, *Crime in California*, at 39 (Table 32) (2018), <https://data-openjustice.doj.ca.gov/sites/default/files/2019-07/Crime%20In%20CA%202018%2020190701.pdf>.)

Moreover, social science has long established that the human brain continues to develop into the early or mid-20s, and that Young Adults under the age of 21 are less likely to have developed the maturity necessary to make responsible decisions than older counterparts, that they are more reactive and take more risks. (*See, e.g.*, Rosenberg Decl., Ex. 3, Mariam Arain et al., *Maturation of the Adolescent Brain*, 9 NEUROPSYCHIATRIC DISEASE & TREATMENT 449, 453-54, 458 (2013) [“the adolescent brain is structurally and functionally vulnerable to environmental stress” and thus this age group is predisposed to “quickness to anger, intense mood swings, and making decisions on the basis of ‘gut’ feelings”]; Rosenberg Decl., Ex. 4, Leah H. Somerville et al., *A Time of Change: Behavioral and Neural Correlates of Adolescent Sensitivity to Appetitive and Aversive Environmental Cues*, 72 BRAIN &

COGNITION 124, 125 (2010) [minors are uniquely prone to “negative emotional states”].) Indeed, science shows that young adults have weaker impulse control and “demonstrate poorer emotional regulation in the context of threat than other age groups,” which makes them uniquely disposed to use firearms “in the very situations in which adolescents are most developmentally vulnerable: in the context of high emotional arousal, situations that require rapid, complex social information processing, those that involve reinforcing or establishing peer relationships (i.e., showing off), or in conditions of perceived threat.” (Rosenberg Decl., Ex. 5, Daniel W. Webster et al., Johns Hopkins Ctr. For Gun Policy and Research, *Firearms on College Campuses: Research Evidence and Policy Implications*, 3, 18-19 (Oct. 2016), <https://bit.ly/2QfZJHN>; *see also id.* at 3 [“Risky decision-making in adolescence and early adulthood is due, in part, to on-going brain development during that stage of life that can compromise emotional and behavioral regulation, impulse control, and judgment – all of which are essential for avoiding the circumstances in which firearm access leads to tragedy.”].)<sup>2</sup>

Such evidence of the prevalence of violent crime committed by Young Adults aged 18-20, coupled with social science evidence definitely establishing that brain maturation in that age group is not complete, is precisely the social science support that the Fifth Circuit in *BATF*, the Seventh Circuit in *Horsley*, and the Western District of Virginia in *Hirschfeld* determined established support for adopting restrictions on the means for Young Adults to purchase firearms from FFLs and to establish entitlement to a FOID card (in Illinois). *See BATF*, 700 F.3d at 207-11; *Horsley*, 808 F.3d at 1132-34; *Hirschfeld*, 2019 WL 4923955, at \*2-3 (noting, that in developing the federal handgun ban, “Congress . . . found a ‘causal relationship between the easy availability’ of handguns ‘and juvenile and youthful criminal

<sup>2</sup> Webster, et al., also note the enhanced suicide risk in Young Adults as a reason for limiting firearm carry and access. (*Id.* at 19 [noting that “suicide was the second leading cause of death in the U.S. among college age youth 17-24 years in 2014, that 49 percent of males aged 17-24 who committed suicide used firearms, and that suicide attempts by firearm result in death 90 percent of the time].)

1 behavior, and that such firearms have been widely sold by federally licensed  
 2 importers and dealers to emotionally immature, or thrill-bent juveniles and minors  
 3 prone to criminal behavior.’ Pub. L. No. 90–351, § 901(a)(6), 82 Stat. 197, 225–  
 4 226.”). Here, too, evidence regarding Young Adult-perpetrated crime, coupled with  
 5 the social science showing that Young Adults may not yet be capable of making  
 6 responsible decisions about the use of firearms, demonstrated much more than a  
 7 reasonable fit between the Legislature’s desire to curb gun violence and its  
 8 promulgation of limited restrictions on the manner in which Young Adults may  
 9 procure firearms.

10 Plaintiffs argue that there is no evidence that age-based limitations on access  
 11 to firearms will prevent crime, promote public safety, or prevent any mass  
 12 shootings. (Mot. at 19, 22 [citing, e.g., ECF No. 21-15, Marvell Decl. ¶¶ 5-9 & Ex.  
 13 2.] But even evidence they cite contradicts this contention: A 2014 study  
 14 confirmed that federal minimum-age restrictions contributed to a “very significant  
 15 decline” in youth suicide and unintentional death rates. (See ECF No. 21-15,  
 16 Marvell Decl., Ex. 4 at 0055, Mark Gius, *The Impact of Minimum Age and Child*  
 17 *Access Prevention Laws on Firearm-Related Youth Suicides and Unintentional*  
 18 *Deaths*, 52 THE SOC. SCI. J. 168, 173 (2015); see also ECF No. 21-15, Marvell  
 19 Decl. ¶ 14 & Ex. 7, Daniel W. Webster et al., *Association between Youth-focused*  
 20 *Firearm Laws and Youth Suicides*, 292 JAMA 594 (2004) [finding significant  
 21 decline in suicides in the 18-20 year old group following implementation of some  
 22 age restriction statutes].) Reduction in suicide and unintentional death rates among  
 23 young persons alone would serve as a substantial public interest.

24 Regarding crime rates, The RAND Corporation analysis cited by Plaintiffs in  
 25 their favor (ECF No. 21-15 and 21-16, Ex. 10), does not actually contradict crime  
 26 reducing effects. Instead The RAND Corporation analysis concludes that there is  
 27 insufficient evidence in the universe of social science commentary to determine  
 28 whether minimum age laws reduce crime in particular. (*Id.* at 0170, 0222-0235



1 [surveying conflicting studies and available research], 0257-0259.) But even if that  
 2 analysis constituted conflicting evidence, uncertainty counsels strongly *against*  
 3 issuing a preliminary injunction. *See Dymo Indus., Inc. v. Tapeprinter, Inc.*, 326  
 4 F.2d 141, 143 (9th Cir. 1964) (“[O]n application for preliminary injunction the  
 5 court is not bound to decide doubtful and difficult questions of law or disputed  
 6 questions of fact.”).

7 Further, Plaintiffs demand that the State comport with a standard not required  
 8 by law. If states were required to show evidence that a particular approach to  
 9 curtailing violence had *already* proved effective, or to *guarantee* that it would  
 10 prove effective, states would be prevented from innovating and experimenting with  
 11 new ways to address, for example, “the problem of handgun violence in this  
 12 country[.]” *See Heller I*, 554 U.S. at 636. But this is not the proper standard, as the  
 13 Ninth Circuit’s decision in *Pena* shows. Applying intermediate scrutiny, the court  
 14 upheld California’s “microstamping requirement,” a law that was “the first of its  
 15 kind,” and “an experimental solution to admittedly serious problems.” *Pena*, 898  
 16 F.3d at 984 (“[A] single courageous state may, if its citizens choose, *serve as a*  
 17 laboratory, and try novel legislative experiments.” (internal alterations and  
 18 quotation marks omitted)); *accord McDonald*, 561 U.S. at 785 (plurality op.)  
 19 (Second Amendment “by no means eliminates” a state’s “ability to devise solutions  
 20 to social problems that suit local needs and values”). California, like other states,  
 21 may experiment with placing targeted limitations on the manner in which  
 22 commercial sales and transfers are made to Young Adults by FFLs in an attempt to  
 23 reduce the incidence of gun violence, suicide, accidental death or injury, and other  
 24 harms without offending the core Second Amendment right.

25 **b. Requiring Young Adults Without Military or Law**  
 26 **Enforcement Training to Purchase Long Guns Via the**  
 27 **Hunting License Exemption Is a Modest Requirement**  
 28 **that Reasonably Fits California’s Public Safety Goal**

Plaintiffs argue that a “vast array of firearms regulations already in place” are

1 sufficient to protect the public safety, including the firearm safety certificate  
2 requirement generally applicable to firearms purchases. (*See* Mot. at 29).  
3 Plaintiffs’ views should not override the predictive judgments of the Legislature  
4 about what education courses will best protect Young Adults and the general public  
5 from the risk of accidental or intentional firearm injury or death. In developing the  
6 hunting license exemption to the firearm safety certificate requirement of California  
7 Penal Code § 31615 now contained in Penal Code § 31700(c), the Legislature  
8 clearly compared the scope and components of the firearm safety certificate  
9 educational program with that of the hunter education program. Legislative  
10 analysis from the 2013 legislative session demonstrates that the Legislature  
11 considered that “[t]he amount of firearm safety information included in the hunting  
12 education course is more extensive than that in the safety certificate education  
13 component,” and the broader scope of the hunter education course’s firearm safety  
14 information “prompt[ed] the exemption in [SB 683] from the safety certificate  
15 requirement for those in possession of a hunting license.” (Rosenberg Decl., Ex. 6,  
16 Cal. Leg., Assemb. Comm. On Public Safety, Bill Analysis, SB 683 (2013-14 Reg.  
17 Sess.), at 4 (Aug. 13, 2013).) And, of course, the firearm safety certificate program  
18 does not include any in-person training component; it merely requires passage of a  
19 multiple-choice test and a safe handling demonstration, all of which can be  
20 accomplished at a firearms dealer location at the point of sale of the firearm. (*See*  
21 ECF No. 21-19, Bogan Decl., Ex. 4 at 0138.) The Legislature certainly could have  
22 reasonably determined that a more intensive firearms training program involving  
23 an-in person instructive component—whether through the rigors of military or law  
24 enforcement training, or a hunter education course—would better prepare Young  
25 Adults in light of science regarding the immaturity and impulsivity of that age  
26 group.

27 Hunter education and licensing is a modest requirement, not nearly of  
28 constitutional import. Neither any small delay occasioned by the availability of



1 follow-up hunter education classes (notably not subject to State control) nor the  
 2 imposition of minor fees is so onerous as to substantially impinge Young Adults’  
 3 Second Amendment rights. *See, e.g., Silvester*, 843 F.3d at 831 (Thomas, C.J.,  
 4 concurring) (concurring in upholding California’s 10-day waiting period statute for  
 5 pick-up of purchased firearms under intermediate scrutiny, and noting that “delay  
 6 has not always been associated with government regulation,” and “the ability to  
 7 immediately exercise Second Amendment rights has no foundation in history”);  
 8 *Bauer*, 858 F.3d at 1222, 1226 (upholding \$19 dealer record of sale fee under  
 9 intermediate scrutiny). Indeed, the Second Circuit has upheld even a \$340  
 10 licensing fee for a firearm under intermediate scrutiny, noting that even a fee of that  
 11 scale might be only a “marginal” restraint on the core Second Amendment right to  
 12 possess and use firearms in the home—especially where, as here, not a single  
 13 plaintiff alleged that the fee was actually prohibitive. *Kwong v. Bloomberg*, 723  
 14 F.3d 160, 167 (2d Cir. 2013). The standard fee for the online portion of the hunter  
 15 education course is \$28.95; this fee is virtually identical to the \$25 fee imposed for  
 16 the procurement of a firearm safety certificate. (*See* ECF No. 21-8, Combs Decl.,  
 17 Ex. 6 at 0156; *see also* Rosenberg Decl., Ex. 7, Cal. Dept. of Justice, Firearm  
 18 Safety Certificate Program FAQs, <https://oag.ca.gov/firearms/fscpfafs>).<sup>3</sup> Further,  
 19 despite Plaintiffs’ attempt to show otherwise, hunter education courses are widely  
 20 available and merely require signing up in advance. (Rosenberg Decl., Ex. 8 [as of  
 21 December 13, 2019, there were 130 open seats in hunter education courses across  
 22 California through January 11, 2020, including courses available in mid-  
 23 December]; Rosenberg Decl., Ex. 9 [as of December 10, 2019, 221 seats were  
 24 available in hunter education courses located within 75 miles of San Diego County  
 25 zip code 92101 through September 7, 2020].)

26  
 27  
 28 <sup>3</sup> Available follow-up course locations and sign-up are readily accessible  
 online at <https://register-ed.com/programs/california/161>.

Moreover, substantial evidence in the record shows that Young Adults across the State have made ample use of the exemptions set forth in Section 27510 in order to purchase or receive transfer of long guns since SB 1100's amendments took effect on January 1, 2019. Department of Justice data regarding long gun sales and transfer transactions from January 1, 2019 through December 23, 2019 show that Young Adults aged 18-20 purchased or otherwise received transfer of 3,789 long guns. (Declaration of Maricela Leyva Chavez ("Leyva Decl.") ¶ 11.)<sup>4</sup>

Nor does it appear that Section 27510's restrictions have had any significant impact on the ability of Californians generally or Young Adults specifically to obtain the requisite hunter education to secure a valid hunting license. The California Department of Fish and Wildlife reported that, as of October 31, 2019, with two months of 2019 left to go, it had sold 193,771 annual resident hunting licenses and 5,814 lifetime hunting licenses—numbers consistent with the reported full-year numbers for each of the prior nine years. (*See* Rosenberg Decl., Ex. 10, Cal. Dept. Fish & Wildlife, Hunting License: Number Issued (2010s), <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=59821&inline>.)

Because Plaintiffs assert a facial challenge to SB 1100 and SB 61's amendments to Section 27510, they "must establish that no set of circumstances exists under which the [regulation or statute] would be valid." *See United States v. Salerno*, 481 U.S. 739, 745 (1987); *see also Chem. Specialties Mfrs. Ass'n, Inc. v. Allenby*, 958 F.2d 941, 943 (9th Cir. 1992). In other words, they must show that the law is unconstitutional in *all* of its applications. *See Wash. State Grange v. Wash. State Republican Party*, 552 U.S. 442, 450 (2008). Where, as here, laws have a "plainly legitimate sweep," a facial challenge must fail. *See id.* at 449 (citation and internal quotations omitted). Given the continued prevalence of both firearm sales pursuant to available exemptions to Young Adults aged 18-20 and the unwavering

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<sup>4</sup> These long gun transactions through FFLs included sales, private party transfers, pawn or consignment redemptions, and long gun loans.

1 rate of hunting license issuance following the enactment of SB 1100's limitations  
2 on FFL sales and transfers, Plaintiffs cannot meet this demanding standard.

3 **c. Limiting Sales and Transfers of Long Guns Through**  
4 **FFLs Appropriately Serves the Legislature's Desire to**  
5 **Limit Gun Violence Occasioned by Mass Shootings**

6 The Legislature's decision to limit access to firearms obtained from licensed  
7 dealers in order to serve the interest of limiting gun violence effected through mass  
8 shootings<sup>5</sup> is supported by evidence regarding the manner in which mass shooters  
9 procure their weapons, the proliferation of mass shootings more generally, and—  
10 despite Plaintiffs' contentions otherwise—the incidence of mass shootings by  
11 Young Adults. (*Contra* Mot. at 19-20.)

12 The Legislature's concern with instances of mass shootings was justified. By  
13 the end of July 2019, media reported that California had experienced 32 shootings  
14 in which 4 or more people were injured or killed. (Rosenberg Decl., Ex. 11, Eric  
15 Escalante, *Nonprofit Marks El Paso Shooting as 250<sup>th</sup> Mass Shooting in the U.S. for*  
16 *2019*, ABC10 (Aug. 3, 2019),  
17 [https://www.abc10.com/article/news/crime/nonprofit-marks-el-paso-shooting-as-](https://www.abc10.com/article/news/crime/nonprofit-marks-el-paso-shooting-as-250th-mass-shooting-in-the-us-for-2019/103-128c6c17-89e5-4da6-8a1c-7dcdde7df1d2)  
18 [250th-mass-shooting-in-the-us-for-2019/103-128c6c17-89e5-4da6-8a1c-](https://www.abc10.com/article/news/crime/nonprofit-marks-el-paso-shooting-as-250th-mass-shooting-in-the-us-for-2019/103-128c6c17-89e5-4da6-8a1c-7dcdde7df1d2)  
19 [7dcdde7df1d2](https://www.abc10.com/article/news/crime/nonprofit-marks-el-paso-shooting-as-250th-mass-shooting-in-the-us-for-2019/103-128c6c17-89e5-4da6-8a1c-7dcdde7df1d2).) The San Francisco Chronicle reported on July 31, 2019, that  
20 California had experienced 67 mass shootings in the last 2 decades, and that they  
21 have become increasingly deadly, with all but two of the deadliest having occurred  
22 between the years of 2011 and 2018. (Rosenberg Decl., Ex. 12, Joaquin Palomino,  
23 *Mass Shootings in California: Rare But Increasingly Deadly*, San Francisco  
24 Chronicle (July 31, 2019), [https://www.sfchronicle.com/crime/article/Mass-](https://www.sfchronicle.com/crime/article/Mass-shootings-in-California-Rare-but-14268411.php)  
25 [shootings-in-California-Rare-but-14268411.php](https://www.sfchronicle.com/crime/article/Mass-shootings-in-California-Rare-but-14268411.php).) And in 2014, both a study from  
26 the Harvard School of Public Health and an FBI report confirmed that the incidence

27 <sup>5</sup> Plaintiffs attempt to limit the scope of the Legislature's focus to "mass  
28 school shootings," but the Legislature's amendments to Section 27510 through SB  
61 following the Poway synagogue shooting in April 2019 demonstrate that the  
Legislature aimed to curtail incidences of mass shootings more generally.

1 of mass shootings in the United States *tripled* between 2011 and 2014. (Rosenberg  
2 Decl., Ex. 13, Mark Follman, *Yes, Mass Shootings Are Occurring More Often*,  
3 Mother Jones (October 21, 2014),

4 <https://www.motherjones.com/politics/2014/10/mass-shootings-rising-harvard/>.)

5 Further, the vast majority of the guns used in mass shootings are procured  
6 from dealers or other legal sources. Mother Jones, a news organization that  
7 maintains a database cataloguing mass shootings in the United States since 1982,  
8 reports that of the 114 mass shootings in the United States from 1982 through  
9 August 5, 2019, 74 percent involved firearms the shooter procured legally. (*See*  
10 Rosenberg Decl., Ex. 14, Luis Melgar and Lisa Dunn, *Since 1982, 74 Percent of*  
11 *Mass Shooters Obtained Their Guns Legally*, Guns & America (Nov. 2, 2018),  
12 [https://gunsandamerica.org/story/18/11/02/since-1982-74-percent-of-mass-](https://gunsandamerica.org/story/18/11/02/since-1982-74-percent-of-mass-shooters-obtained-their-guns-legally/)  
13 [shooters-obtained-their-guns-legally/](https://gunsandamerica.org/story/18/11/02/since-1982-74-percent-of-mass-shooters-obtained-their-guns-legally/) [citing Mark Follman, Gavin Aronsen, and  
14 Deanna Pan, *US Mass Shootings, 1982-2019: Data From Mother Jones’*  
15 *Investigation*, Mother Jones (updated Dec. 11, 2019, 9:15 AM), *Open Source*  
16 *database available at* [https://www.motherjones.com/politics/2012/12/mass-](https://www.motherjones.com/politics/2012/12/mass-shootings-mother-jones-full-data/)  
17 [shootings-mother-jones-full-data/](https://www.motherjones.com/politics/2012/12/mass-shootings-mother-jones-full-data/)]; *see also* Rosenberg Decl., Ex. 15, Larry  
18 Buchanan et al., *How They Got Their Guns*, N.Y. Times (updated Feb. 16, 2018),  
19 [https://www.nytimes.com/interactive/2015/10/03/us/how-mass-shooters-got-their-](https://www.nytimes.com/interactive/2015/10/03/us/how-mass-shooters-got-their-guns.html)  
20 [guns.html](https://www.nytimes.com/interactive/2015/10/03/us/how-mass-shooters-got-their-guns.html) [*New York Times* reported in February 2018 that “A vast majority of  
21 guns used in 19 recent mass shootings were bought legally and with a federal  
22 background check,” including the AR-15 style rifle used by 19-year-old Nikolas  
23 Cruz in the Parkland, Florida shooting that killed 17 people) (cited with approval  
24 as evidence lending “support to [a] legislature’s conclusion that a law proscribing  
25 semiautomatic assault weapons . . . will help curtail outbreaks of mass violence” in  
26 *Worman v. Healey*, 922 F.3d 26, 40 (1st Cir. 2019))].

27 And although Plaintiffs contend that age is not a significant factor in the  
28 prevalence of mass shootings, their own evidence states that *14 percent* of mass

1 shootings were committed by youth aged 16-20. (*See* ECF No. 21-17, Lott Decl. ¶  
 2 10, at 6.) The Legislature rightfully could have determined that this number,  
 3 coupled with both the disproportionate propensity to commit homicide of 18-20  
 4 year-olds and the lack of emotional and impulse control of Young Adults in that  
 5 age group, supported a recalibration of access to firearms ensuring both more  
 6 limited access to deadly weapons, and a focus on firearm safety education.

7 **d. SB 61's Further Limitations on Access to Semi-**  
 8 **Automatic Centerfire Rifles Are Justified**

9 Limiting access to semi-automatic centerfire rifles for Young Adults who the  
 10 social science establishes are generally more prone to impulsive or reckless  
 11 behavior as their brains continue to develop is one rooted in common sense. There  
 12 can be no debate but that “[s]emiautomatic [] weapons permit a shooter to fire  
 13 multiple rounds very quickly, allowing him to hit more victims in a shorter period  
 14 of time,” and that AR-15-style semi-automatic weapons (used with large capacity  
 15 magazines) “have been the weapons of choice in many of the deadliest mass  
 16 shootings in recent history, including horrific events in Pittsburgh (2018), Parkland  
 17 (2018), Las Vegas (2017), Sutherland Springs (2017), Orlando (2016), Newtown  
 18 (2012), and Aurora (2012).” *Worman*, 922 F.3d at 39.

19 Indeed, Plaintiffs’ own exhibit touting “the practical benefits of being able to  
 20 engage [shoot] a lot of pigs at a time,” to “take multiple shots without losing sight  
 21 of an animal” with a semi-automatic rifle (unlike with a bolt action rifle), and to  
 22 “take a quick follow-up shot” with an AR-15 style rifle “if you’ve got multiple  
 23 animals or you miss” underscores the inherently dangerous nature of semi-  
 24 automatic weapons when such weapons are placed in the hands of an untrained or  
 25 immature shooter: faster shooting, less opportunity for victims to escape, and the  
 26 ability to effect violence on multiple targets simultaneously. (ECF No. 21-9,  
 27 Combs Decl., Ex. 18, at 0550-0551.) And the social science and medical  
 28 community commentary overwhelmingly shows that the damage caused by the

1 higher caliber, higher speed bullets used in “modern sporting rifles” akin to the AR-  
 2 15 and other semi-automatic centerfire rifles cause more traumatic injuries and  
 3 result in a significantly higher incidence of persons wounded or killed. (Rosenberg  
 4 Decl., Ex. 16, Tim Craig et al., *As the Wounded Kept Coming, Hospitals Dealt with*  
 5 *Injuries Rarely Seen in U.S.*, Wash. Post (Oct. 3, 2017),  
 6 [https://www.washingtonpost.com/national/health-science/as-the-wounded-kept-](https://www.washingtonpost.com/national/health-science/as-the-wounded-kept-coming-hospitals-dealt-with-injuries-rarely-seen-in-the-us/2017/10/03/06210b86-a883-11e7-b3aa-c0e2e1d41e38_story.html?utm_term=.5a659eec267b)  
 7 [coming-hospitals-dealt-with-injuries-rarely-seen-in-the-us/2017/10/03/06210b86-](https://www.washingtonpost.com/national/health-science/as-the-wounded-kept-coming-hospitals-dealt-with-injuries-rarely-seen-in-the-us/2017/10/03/06210b86-a883-11e7-b3aa-c0e2e1d41e38_story.html?utm_term=.5a659eec267b)  
 8 [a883-11e7-b3aa-c0e2e1d41e38\\_story.html?utm\\_term=.5a659eec267b](https://www.washingtonpost.com/national/health-science/as-the-wounded-kept-coming-hospitals-dealt-with-injuries-rarely-seen-in-the-us/2017/10/03/06210b86-a883-11e7-b3aa-c0e2e1d41e38_story.html?utm_term=.5a659eec267b) [“If a 9mm  
 9 bullet strikes someone in the liver . . . that person might suffer a wound perhaps an  
 10 inch wide, . . . [b]ut if you’re struck in the liver with an AR-15, it would be like  
 11 dropping a watermelon onto the cement. It just is disintegrated.” (internal quotation  
 12 marks omitted)]; Rosenberg Decl., Ex.17, Elzerie de Jager, et al., *Lethality of*  
 13 *Civilian Active Shooter Incidents With and Without Semiautomatic Rifles in the*  
 14 *United States*, 320 JAMA 10, at 1034-1035 (2018),  
 15 <https://doi.org/10.1001/jama.2018.11009> [“Semiautomatic rifles are designed for  
 16 easy use . . . and fire high velocity bullets, enabling active shooters to wound and  
 17 kill more people per incident.”].<sup>6</sup> By limiting commercial sales or transfers to  
 18 Young Adults of these destructive weapons to those with extensive safety and  
 19 firearms training, the Legislature made reasonable judgments well-suited to protect  
 20 the public’s inarguable interest in public safety.

21 Further, the limitation on access to semi-automatic centerfire rifles will not  
 22 substantially burden Young Adults who wish to purchase firearms for self-defense  
 23 or other lawful uses. *Cf. Pena*, 898 F.3d at 978 (“[B]eing unable to purchase a  
 24 subset of semiautomatic weapons, without more, does not significantly burden the  
 25 right to self-defense in the home.” (citing *Heller*, 554 U.S. at 626)). Although semi-  
 26 automatic rifles and shotguns *have* been popular in the past with Young Adults in  
 27 California (Department of Justice data shows that between 2014 and December 23,

28 <sup>6</sup> *Accord Worman*, 922 F.3d at 39-40 (collecting authorities).



2019, Young Adults aged 18-20 completed 31,107 and 3,879 sale or transfer transactions of those firearms, respectively, and 20 transactions involving a combination of semi-automatic rifles and shotguns), Young Adults *also* purchased or received transfer of many other types of long guns in that same period, including pump-action shotguns (21,940 transactions), bolt action rifles (15,740 transactions), pump action rifles (197 transactions), lever action rifles (2,703 transactions), lever action shotguns (45 transactions), single shot shotguns (436 transactions), single shot rifles (223 transactions), and many others. (Leyva Decl. ¶ 10.) There are ample other options—popular options—available for those Young Adults who are (temporarily) unable to procure semi-automatic centerfire rifles by immediate family transfer. (See ECF No. 21-9, Combs Decl., Ex. 18 at 00510 [“Bolt action rifles are the most common hunting rifles . . . today.”].)

By contrast, the Legislature’s intention to limit access to certain powerful and injurious firearms for those most likely to misuse them certainly “would be achieved less effectively absent” SB 61’s limitation. *Silvester*, 843 F.3d at 829.

## **II. PLAINTIFFS HAVE NOT ESTABLISHED THAT THEY WILL SUFFER ANY IRREPARABLE HARM ABSENT PRELIMINARY INJUNCTIVE RELIEF.**

Plaintiffs have not and cannot establish that they will suffer any irreparable harm in the absence of preliminary injunctive relief, because they have not shown that they are likely to succeed on their Second Amendment claim. See *Preminger v. Principi*, 422 F.3d 815, 826 (9th Cir. 2005). Moreover, even if they could establish a likelihood of success on the merits, Plaintiffs’ mere assertion of constitutional claims would not be dispositive on this factor. See *Hohe v. Casey*, 868 F.2d 69, 73 (3d Cir. 1989) (“Constitutional harm is not necessarily synonymous with the irreparable harm necessary for issuance of a preliminary injunction,” even in the First Amendment context (citing *City of Los Angeles v. Lyons*, 461 U.S. 95, 112-13 (1983))); *Constructors Ass’n of W. Penna. v. Kreps*, 573 F.2d 811, 820 n. 33 (3d Cir. 1978) (“[U]nlike First Amendment rights whose

1 deprivation even from minimal periods of time constitutes irreparable injury,”  
 2 denial of other rights “may be more or less serious depending on the other injuries  
 3 which accompany such deprivation.”).

4 Here, as discussed above, the Young Adults still retain the ability to possess  
 5 and use handguns and long guns—including semi-automatic centerfire rifles—for  
 6 the purposes of self-defense in the home and other lawful purposes. Unless  
 7 otherwise prohibited by law, they may still receive transfers from parents,  
 8 grandparents, and spouses, practice at shooting ranges, receive loans of firearms for  
 9 limited periods of time under supervision or at a range, and purchase non-semi-  
 10 automatic centerfire long guns if they complete the requisite training and secure a  
 11 valid hunting license. *See supra* [REDACTED]. And any inconvenience they experience is  
 12 inherently only temporary, as they will be free of Section 27510’s age limitations  
 13 on sales and transfers as soon as they turn 21. *BATF*, 700 F.3d at 207; *Hirschfeld*,  
 14 2019 WL 4923955, at \*6. The harm Young Adults purportedly will suffer by the  
 15 imposition of this “mere condition or qualification” on commercial transactions  
 16 with FFLs is not substantial, even it imposes a modest inconvenience. *Hirschfeld*,  
 17 2019 WL 4923955, at \*6 (quotation marks and internal punctuation omitted).

18 Tellingly, *none* of the individual Plaintiffs alleged in the SAC or in their  
 19 declarations any desire to acquire a semi-automatic centerfire rifle, or even any  
 20 *particular* firearm. None stated that he could not acquire a firearm of his choosing  
 21 through a parent, grandparent, or spouse (or that he had tried do so). And none  
 22 stated that he even attempted to *seek out* firearm training or target practice  
 23 opportunities at a shooting range or gun club, where he could be loaned a firearm  
 24 for purposes of target and safe handling practice. *Cf.* Cal. Pen. Code § 27910. The  
 25 dealer Plaintiffs allege vaguely that they have ceased providing firearm safety and  
 26 hunting classes, but none alleges that any law enforcement authority has threatened  
 27 action for violation of Section 27510 based on the provision of any such  
 28 educational classes, or that such classes are generally unavailable to Young Adults.



1 Plaintiffs also cannot establish irreparable harm because the law they are  
 2 challenging has been in effect for nearly a year (with the exception of the restriction  
 3 relating to semi-automatic centerfire rifles imposed by SB 61, which will take effect  
 4 January 1, 2020). “A preliminary injunction is sought upon the theory that there is  
 5 an urgent need for speedy action to protect the plaintiff’s rights. By sleeping on its  
 6 rights a plaintiff demonstrates the lack of need for speedy action,” even in cases  
 7 alleging deprivation of fundamental rights. *Lydo Enters. v. Las Vegas*, 745 F.2d  
 8 1211, 1213-14 (9th Cir. 1984) (considering First Amendment claim); *see also*  
 9 *Oakland Tribune, Inc. v. Chronicle Pub. Co.*, 762 F.2d 1374, 1377 (9th Cir. 1985)  
 10 (“Plaintiff’s long delay before seeking a preliminary injunction implies a lack of  
 11 urgency and irreparable harm.”); 11A Charles Alan Wright et al., *Federal Practice*  
 12 *and Procedure* § 2948.1 (3d ed.) (“A long delay by plaintiff after learning of the  
 13 threatened harm also may be taken as an indication that the harm would not be  
 14 serious enough to justify a preliminary injunction.”). Indeed, a delay of eight  
 15 months—even *less* than Plaintiffs’ delay here—is enough for a district court to  
 16 “legitimately think it suspicious that the party who asks to preserve the status quo  
 17 through interim relief has allowed the status quo to change through unexplained  
 18 delay.” *Miller for & on Behalf of N.L.R.B. v. California Pac. Med. Ctr.*, 991 F.2d  
 19 536, 544 (9th Cir. 1993) (citation omitted).

20 Moreover, Plaintiffs waited three months after filing their initial complaint and  
 21 two months after filing their FAC to file their initial preliminary injunction motion,  
 22 belying any contention that they believed they were experience grave and  
 23 irreparable harm. “There is no reason why plaintiffs could not have immediately  
 24 moved for a preliminary injunction upon filing their suit, even assuming they were  
 25 justified in waiting . . . to bring the action in the first place.” *Wiese v. Becerra*, No.  
 26 2:17-cv-903-WBS-KJN, 2017 WL 2619110, at \*2 (E.D. Cal. June 16, 2017).

27 In short, Plaintiffs here do not seek to preserve the status quo that has existed  
 28 for the past 12 months; instead, they ask the Court to roll back the clock despite

1 their own failure to move quickly to challenge the implementation of SB 1100,  
 2 even though at least some subset of the Plaintiffs had knowledge of the effect SB  
 3 1100 would have on the transfer of long guns through licensed dealers months  
 4 before SB 1100 was enacted. (*See, e.g.*, ECF No. 21-8, Combs Decl. ¶ 4 [stating  
 5 “FPC strongly opposed the legislation, Senate Bill 1100, (2017-2018 Reg. Sess.)  
 6 (“SB 1100”) that led to enactment of the challenged law”]; *id.*, Ex. 4 at 0021.)

### 7 **III. THE BALANCE OF EQUITIES AND THE PUBLIC INTEREST WEIGH** 8 **AGAINST PRELIMINARY INJUNCTIVE RELIEF.**

9 In exercising sound discretion, a district court “must balance the competing  
 10 claims of injury and consider the effect of granting or withholding the requested  
 11 relief,” paying “particular regard for the public consequences in employing the  
 12 extraordinary remedy of injunction.” *Winter*, 555 U.S. at 24 (quotation marks and  
 13 citation omitted). Importantly, the balance of the equities and the public interest  
 14 “merge when the Government is the opposing party.” *Nken v. Holder*, 556 U.S.  
 15 418, 435 (2009). Indeed, “[t]he Ninth Circuit instructs that when balancing the  
 16 hardships ‘of the public interest against a private interest, the public interest should  
 17 receive greater weight.’” *Rupp*, 2018 WL 2138452, at \*13 (denying preliminary  
 18 injunction regarding provisions of California’s Assault Weapons Control Act).  
 19 These factors tip decidedly against granting Plaintiffs’ motion.

20 Plaintiffs cannot demonstrate that it is in the public interest to enjoin a duly-  
 21 enacted law designed to protect the public safety and reduce gun violence; with  
 22 human lives on the line, the stakes for public safety are just too high. *See United*  
 23 *States v. Masciandaro*, 638 F.3d 458, 475-76 (4th Cir. 2011) (Wilkinson, J.)  
 24 (“miscalculat[ion] as to Second Amendment rights” could lead to “unspeakably  
 25 tragic act[s] of mayhem”); *accord Tracy Rifle & Pistol LLC v. Harris*, 118 F. Supp.  
 26 3d 1182, 1193-94 (E.D. Cal. 2015), *aff’d* 637 F. App’x 401 (9th Cir. 2016).

27 The modest inconveniences any individual Young Adult may experience in  
 28 procuring a hunting license in order to purchase a long gun, or lawfully securing a

firearm through a non-FFL transfer, do not outweigh the public safety interests discussed above. *See Burford v. Sun Oil Co.*, 319 U.S. 315, 318 (1943) (“[I]t is in the public interest that federal courts of equity should exercise their discretionary power with proper regard for the rightful independence of state governments in carrying out their domestic policy.” (internal quotation marks omitted)); *Maryland v. King*, 133 S. Ct. 1, 2 (2012) (Roberts, C.J., in chambers) (“Any time a State is enjoined by a court from effectuating statutes enacted by representatives of its people, it suffers a form of irreparable injury.” (quotation marks omitted)); *see also Coal. for Econ. Equity v. Wilson*, 122 F.3d 718, 719 (9th Cir. 1997) (“[I]t is clear that a state suffers irreparable injury whenever an enactment of its people or their representatives is enjoined.”). Accordingly, the law, the balance of harms, and the public interest all weigh decisively against entry of a preliminary injunction here.

### CONCLUSION

Plaintiffs’ motion for preliminary injunction should be denied.

Dated: December 27, 2019

Respectfully Submitted,

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Supervising Deputy Attorney General

/s/ Jennifer E. Rosenberg  
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11 *the Department of Justice Bureau of*  
12 *Firearms*

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15 IN THE UNITED STATES DISTRICT COURT  
16 FOR THE SOUTHERN DISTRICT OF CALIFORNIA  
17  
18

15 **MATTHEW JONES; et al.,**

16 Plaintiffs,

17 v.

18 **XAVIER BECERRA, in his official**  
19 **capacity as Attorney General of the**  
20 **State of California, et al.,**

21 Defendants.

3:19-cv-01226-L-AHG

22 **DECLARATION OF MARICELA**  
23 **LEYVA CHAVEZ IN SUPPORT**  
24 **OF DEFENDANTS' OPPOSITION**  
25 **TO PLAINTIFFS' MOTION FOR**  
26 **PRELIMINARY INJUNCTION**

Judge: Hon. M. James Lorenz and  
Magistrate Judge Barbara  
Lynn Major

Action  
Filed: July 1, 2019

Second Amended Complaint  
Filed and  
Served: November 8, 2019

No hearing set for this motion pursuant  
to Dkt. 23.



**DECLARATION OF MARICELA LEYVA CHAVEZ**

I, Maricela Leyva Chavez, declare:

1. Except as otherwise stated, I have personal knowledge of the facts set forth in this declaration, and if called upon as a witness I could testify competently as to the truth of the matters set forth herein.

2. I have been employed with the State of California, Department of Justice, Bureau of Firearms (BOF) Customer Support Center as a Staff Services Manager I since June 2018. I began working for the BOF in 2012 as a Program Technician II. I was later promoted to Staff Services Analyst, then to Associate Governmental Program Analyst, then to Staff Services Manager I over Assault Weapon Registration, and finally to Staff Services Manager I over the Customer Support Center (CSC).

3. As a Staff Services Analyst in the CSC, I provided telephone assistance to the public, firearms dealers, and firearm-safety instructors regarding firearms-related questions.

4. As an Associate Governmental Program Analyst in the CSC, I was responsible for the financial accounting component of the Firearm Safety Certificate and Dealer Record of Sale programs. In addition, I assisted other analysts in the unit with the most difficult phone calls.

5. As a Staff Services Manager I over the CSC, it is my responsibility to manage the CSC's daily functions, which include monitoring calls and correspondence received by BOF from firearms dealers, firearm-safety instructors, law enforcement agencies, manufacturers and the public regarding firearms laws and regulations.

6. When a purchaser buys a firearm from a licensed dealer, information regarding the transaction is entered by the dealer into the Dealer Record of Sale

1 (DROS) Entry System (DES), transmitted to the Department of Justice through  
2 DES, and stored in the DROS database.

3 7. The information the Department receives includes the type of transaction  
4 (e.g. sale, transfer, loan, etc.), as well as information regarding any Firearm Safety  
5 Certificate exemption claimed by the purchaser. (See California Penal Code  
6 sections 31600, et seq. and 31700, et seq.)

7 8. As part of my job duties, I may request data from the California Justice  
8 Information System's (CJIS) Application Development Bureau regarding statistical  
9 information about the sales of firearms in California.

10 9. On December 16, 2019, I submitted a request to the CJIS's Application  
11 Development Bureau for data on the number and type of long guns transferred  
12 through a licensed dealer to Young Adults aged 18-20. Upon information and  
13 belief, a CJIS Application Development Bureau Information Technology Specialist  
14 I compiled the data. The data sent in response to my request were the following:

15 10. Between 2014 and December 23, 2019, Young Adults aged 18-20  
16 completed 31,107 sales or transfer transactions of semi-automatic rifles and 3,879  
17 sales or transfer transactions of semi-automatic shotguns. In that same period,  
18 Young Adults aged 18-20 also completed transactions involving a combination of  
19 semi-automatic rifles and shotguns (20 transactions), pump-action shotguns (21,940  
20 transactions), bolt action rifles (15,740 transactions), pump action rifles (197  
21 transactions), lever action rifles (2,703 transactions), lever action shotguns (45  
22 transactions), single shot shotguns (436 transactions), single shot rifles (223  
23 transactions), and many other types of long guns.

24 11. From January 1, 2019 through December 24, 2019, Young Adults aged  
25 18 to 20 purchased or otherwise received transfer of 3,789 long guns.  
26  
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1 Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the  
2 foregoing is true and correct.

3  
4 Executed on: December 27, 2019

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7 MARICELA LEYVA CHAVEZ  
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3:19-cv-01226-L-AHG

**DECLARATION OF JENNIFER E.  
 ROSENBERG IN SUPPORT OF  
 DEFENDANTS' OPPOSITION TO  
 PLAINTIFFS' MOTION FOR  
 PRELIMINARY INJUNCTION**

**(Part 1 of 3)**

Judge: Hon. M. James Lorenz and  
 Magistrate Judge Barbara  
 Lynn Major

Action  
 Filed: July 1, 2019

Second Amended Complaint  
 Filed and  
 Served: November 8, 2019

No hearing set for this motion pursuant  
 to Dkt. 23.

**DECLARATION OF JENNIFER E. ROSENBERG**

I, Jennifer E. Rosenberg, declare:

1. I am a Deputy Attorney General at the California Department of Justice and serve as counsel to Defendants Xavier Becerra, in his official capacity as Attorney General of the State of California, and Brent E. Orick, in his official capacity as Acting Director of the Department of Justice Bureau of Firearms in the above-titled matter.

2. Except as otherwise stated, I have personal knowledge of the facts set forth in this declaration, and if called upon as a witness I could testify competently as to those facts. I make this declaration in support of Defendant's Opposition to Plaintiffs' Motion for Preliminary Injunction.

3. A true and correct copy of U.S. Department of Justice, *Crime in the United States*, Arrests, by Age, 2017, at Table 38, available at <https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/tables/table-38>, is attached as **Exhibit 1**.

4. A true and correct copy of Criminal Justice Statistics Center, Cal. Dep't of Justice, *Crime in California* (2018), available at <https://data-openjustice.doj.ca.gov/sites/default/files/2019-07/Crime%20In%20CA%202018%2020190701.pdf>, is attached as **Exhibit 2**.

5. A true and correct copy of Mariam Arain et al., *Maturation of the Adolescent Brain*, 9 NEUROPSYCHIATRIC DISEASE & TREATMENT 449 (2013), is attached as **Exhibit 3**.

6. A true and correct copy of Leah H. Somerville et al., *A Time of Change: Behavioral and Neural Correlates of Adolescent Sensitivity to Appetitive and Aversive Environmental Cues*, 72 BRAIN & COGNITION 124 (2010), is attached as **Exhibit 4**.

1           7. A true and correct copy of Daniel W. Webster et al., Johns Hopkins Ctr.  
2 For Gun Policy and Research, *Firearms on College Campuses: Research Evidence*  
3 *and Policy Implications* (Oct. 2016), available at <https://bit.ly/2QfZJHN>, is attached  
4 as **Exhibit 5**.

5           8. A true and correct copy of Cal. Leg., Assemb. Comm. On Public Safety,  
6 Bill Analysis, SB 683 (2013-14 Reg. Sess.) (Aug. 13, 2013), is attached as **Exhibit**  
7 **6**.

8           9. A true and correct copy of Cal. Dept. of Justice, Firearm Safety  
9 Certificate Program FAQs, available at <https://oag.ca.gov/firearms/fscpfaqs>, is  
10 attached as **Exhibit 7**.

11          10. On December 13, 2019, I visited <https://register->  
12 [ed.com/programs/california/161](https://register-ed.com/programs/california/161) and searched for available follow-up hunter  
13 education courses across the State of California. A true and correct copy of the  
14 available classes as of December 13, 2019 is attached as **Exhibit 8**.

15          11. On December 10, 2019, I visited <https://register->  
16 [ed.com/programs/california/161](https://register-ed.com/programs/california/161) and searched for available follow-up hunter  
17 education courses within 75 miles of San Diego County zip code 92101. A true and  
18 correct copy of the available classes as of December 10, 2019 is attached as **Exhibit**  
19 **9**.

20          12. A true and correct copy of Cal. Dept. Fish & Wildlife, Hunting License:  
21 Number Issued (2010s), available at  
22 <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=59821&inline>, is attached as  
23 **Exhibit 10**.

24          13. A true and correct copy of Eric Escalante, *Nonprofit Marks El Paso*  
25 *Shooting as 250<sup>th</sup> Mass Shooting in the U.S. for 2019*, ABC10 (Aug. 3, 2019),  
26 available at [https://www.abc10.com/article/news/crime/nonprofit-marks-el-paso-](https://www.abc10.com/article/news/crime/nonprofit-marks-el-paso-shooting-as-250th-mass-shooting-in-the-us-for-2019/103-128c6c17-89e5-4da6-8a1c-7dcdde7df1d2)  
27 [shooting-as-250th-mass-shooting-in-the-us-for-2019/103-128c6c17-89e5-4da6-](https://www.abc10.com/article/news/crime/nonprofit-marks-el-paso-shooting-as-250th-mass-shooting-in-the-us-for-2019/103-128c6c17-89e5-4da6-8a1c-7dcdde7df1d2)  
28 [8a1c-7dcdde7df1d2](https://www.abc10.com/article/news/crime/nonprofit-marks-el-paso-shooting-as-250th-mass-shooting-in-the-us-for-2019/103-128c6c17-89e5-4da6-8a1c-7dcdde7df1d2), is attached as **Exhibit 11**.

1           14. A true and correct copy of Joaquin Palomino, *Mass Shootings in*  
2 *California: Rare But Increasingly Deadly*, San Francisco Chronicle (July 31, 2019),  
3 available at [https://www.sfchronicle.com/crime/article/Mass-shootings-in-](https://www.sfchronicle.com/crime/article/Mass-shootings-in-California-Rare-but-14268411.php)  
4 [California-Rare-but-14268411.php](https://www.sfchronicle.com/crime/article/Mass-shootings-in-California-Rare-but-14268411.php), is attached as **Exhibit 12**.

5           15. A true and correct copy of Mark Follman, *Yes, Mass Shootings Are*  
6 *Occurring More Often*, Mother Jones (October 21, 2014), available at  
7 <https://www.motherjones.com/politics/2014/10/mass-shootings-rising-harvard/>, is  
8 attached as **Exhibit 13**.

9           16. A true and correct copy of Luis Melgar and Lisa Dunn, *Since 1982, 74*  
10 *Percent of Mass Shooters Obtained Their Guns Legally*, Guns & America (Nov. 2,  
11 2018), available at [https://gunsandamerica.org/story/18/11/02/since-1982-74-](https://gunsandamerica.org/story/18/11/02/since-1982-74-percent-of-mass-shooters-obtained-their-guns-legally/)  
12 [percent-of-mass-shooters-obtained-their-guns-legally/](https://gunsandamerica.org/story/18/11/02/since-1982-74-percent-of-mass-shooters-obtained-their-guns-legally/), is attached as **Exhibit 14**.

13           17. A true and correct copy of Larry Buchanan et al., *How They Got Their*  
14 *Guns*, N.Y. Times (updated Feb. 16, 2018), available at  
15 [https://www.nytimes.com/interactive/2015/10/03/us/how-mass-shooters-got-their-](https://www.nytimes.com/interactive/2015/10/03/us/how-mass-shooters-got-their-guns.html)  
16 [guns.html](https://www.nytimes.com/interactive/2015/10/03/us/how-mass-shooters-got-their-guns.html), is attached as **Exhibit 15**.

17           18. A true and correct copy of Tim Craig et al., *As the Wounded Kept*  
18 *Coming, Hospitals Dealt with Injuries Rarely Seen in U.S.*, Wash. Post (Oct. 3,  
19 2017), available at [https://www.washingtonpost.com/national/health-science/as-the-](https://www.washingtonpost.com/national/health-science/as-the-wounded-kept-coming-hospitals-dealt-with-injuries-rarely-seen-in-the-us/2017/10/03/06210b86-a883-11e7-b3aa-c0e2e1d41e38_story.html?utm_term=.5a659eec267b)  
20 [wounded-kept-coming-hospitals-dealt-with-injuries-rarely-seen-in-the-](https://www.washingtonpost.com/national/health-science/as-the-wounded-kept-coming-hospitals-dealt-with-injuries-rarely-seen-in-the-us/2017/10/03/06210b86-a883-11e7-b3aa-c0e2e1d41e38_story.html?utm_term=.5a659eec267b)  
21 [us/2017/10/03/06210b86-a883-11e7-b3aa-](https://www.washingtonpost.com/national/health-science/as-the-wounded-kept-coming-hospitals-dealt-with-injuries-rarely-seen-in-the-us/2017/10/03/06210b86-a883-11e7-b3aa-c0e2e1d41e38_story.html?utm_term=.5a659eec267b)  
22 [c0e2e1d41e38\\_story.html?utm\\_term=.5a659eec267b](https://www.washingtonpost.com/national/health-science/as-the-wounded-kept-coming-hospitals-dealt-with-injuries-rarely-seen-in-the-us/2017/10/03/06210b86-a883-11e7-b3aa-c0e2e1d41e38_story.html?utm_term=.5a659eec267b), is attached as **Exhibit 16**.

23           19. A true and correct copy of Elzerie de Jager, et al., *Lethality of Civilian*  
24 *Active Shooter Incidents With and Without Semiautomatic Rifles in the United*  
25 *States*, 320 JAMA 10 (2018), available at <https://doi.org/10.1001/jama.2018.11009>,  
26 is attached as **Exhibit 17**.

1 I declare under penalty of perjury under the laws of the United States of  
2 America that the foregoing is true and correct.

3  
4 Executed on: December 27, 2019

5  
6   
7 JENNIFER E. ROSENBERG



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<b>4</b>	Leah H. Somerville et al., <i>A Time of Change: Behavioral and Neural Correlates of Adolescent Sensitivity to Appetitive and Aversive Environmental Cues</i> , 72 BRAIN & COGNITION 124 (2010)	105-115
<b>5</b>	Daniel W. Webster et al., Johns Hopkins Ctr. For Gun Policy and Research, <i>Firearms on College Campuses: Research Evidence and Policy Implications</i> (Oct. 2016)	116-148
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4	<b>13</b>	Mark Follman, <i>Yes, Mass Shootings Are Occurring More Often</i> , Mother Jones (Oct. 21, 2014)	197-200
5			
6	<b>14</b>	Luis Melgar and Lisa Dunn, <i>Since 1982, 74 Percent of Mass Shooters Obtained Their Guns Legally</i> , Guns & America (Nov. 2, 2018)	201-207
7			
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9	<b>15</b>	Larry Buchanan et al., <i>How They Got Their Guns</i> , N.Y. Times (updated Feb. 16, 2018)	208-227
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11	<b>16</b>	Tim Craig et al., <i>As the Wounded Kept Coming, Hospitals Dealt with Injuries Rarely Seen in U.S.</i> , Wash. Post (Oct. 3, 2017)	228-234
12			
13	<b>17</b>	Elzerie de Jager, et al., <i>Lethality of Civilian Active Shooter Incidents With and Without Semiautomatic Rifles in the United States</i> , 320 JAMA 10 (2018)	235-237
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# EXHIBIT 1

Home (<https://ucr.fbi.gov>) • Crime in the U.S. (<https://ucr.fbi.gov/crime-in-the-u.s>) • 2017 (<https://ucr.fbi.gov/crime-in-the-u.s/2017>) • Crime in the U.S. 2017 (<https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017>) • Tables (<https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/tables>) • Table 38



Criminal Justice Information Services Division (<https://www.fbi.gov/services/cjis>)

Feedback (<https://forms.fbi.gov/cjis-feedback-2017>) | Contact Us (<https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/contact-us>) | Data Quality Guidelines (<https://ucr.fbi.gov/data-quality-guidelines-new>) | UCR Home (<https://ucr.fbi.gov/>)

[Home \(https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/home\)](https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/home)

Table

[Offenses Known to Law Enforcement \(https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/offenses-known-to-law-enforcement\)](https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/offenses-known-to-law-enforcement)

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[Violent Crime \(https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/violent-crime\)](https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/violent-crime)

### Arrests

[Property Crime \(https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/property-crime\)](https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/property-crime) by Age, 2017  
[12,606 agencies; 2017 estimated population 253,634,894]

[Clearances \(https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/clearances\)](https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/clearances)

[Persons Arrested \(https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/persons-arrested\)](https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/persons-arrested)

[Police Employee Data \(https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/police-employee-data\)](https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/police-employee-data)

Overview

Data Declaration (<https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/tables/table-38/table-38.xls/@@template-layout-view?override-view=data-declaration>)

Download Excel (<https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/tables/table-38/table-38.xls/output.xls>)

Offense charged	Total all ages	Ages under 15	Ages under 18	Ages 18 and over	Under 10	10-12	13-14	15	16	17	18	19	20	21	
<b>TOTAL</b>	<b>8,247,591</b>	<b>180,638</b>	<b>634,535</b>	<b>7,613,056</b>	<b>4,068</b>	<b>41,120</b>	<b>135,450</b>	<b>118,535</b>	<b>151,827</b>	<b>183,535</b>	<b>247,740</b>	<b>269,926</b>	<b>269,446</b>	<b>271,068</b>	<b>27</b>
<b>Total percent distribution<sup>1</sup></b>	<b>100.0</b>	<b>2.2</b>	<b>7.7</b>	<b>92.3</b>	<b>*</b>	<b>0.5</b>	<b>1.6</b>	<b>1.4</b>	<b>1.8</b>	<b>2.2</b>	<b>3.0</b>	<b>3.3</b>	<b>3.3</b>	<b>3.3</b>	<b>3.3</b>
Murder and nonnegligent manslaughter	9,576	67	717	8,859	0	8	59	105	210	335	479	532	482	463	42
Rape <sup>2</sup>	18,289	1,163	3,030	15,259	25	313	825	515	667	685	764	778	630	605	50
Robbery	74,340	2,925	15,282	59,058	16	387	2,522	3,172	4,287	4,898	5,171	4,550	3,861	3,179	2,5
Aggravated assault	305,291	7,216	22,155	283,136	172	1,906	5,138	4,042	5,030	5,867	6,986	7,705	8,544	9,594	10
Burglary	156,465	7,607	24,223	132,242	197	1,647	5,763	5,093	5,573	5,950	6,841	6,126	5,571	5,097	5,0
Larceny-theft	750,750	26,396	93,738	657,012	479	5,867	20,050	18,044	22,856	26,442	30,195	27,070	23,734	22,155	21
Motor vehicle theft	71,452	3,058	12,798	58,654	10	377	2,671	2,983	3,435	3,322	3,127	2,710	2,357	2,317	2,4
Arson	7,180	1,010	1,766	5,414	58	339	613	312	262	182	218	170	162	151	17
<b>Violent crime<sup>3</sup></b>	<b>407,496</b>	<b>11,371</b>	<b>41,184</b>	<b>366,312</b>	<b>213</b>	<b>2,614</b>	<b>8,544</b>	<b>7,834</b>	<b>10,194</b>	<b>11,785</b>	<b>13,400</b>	<b>13,565</b>	<b>13,517</b>	<b>13,841</b>	<b>13</b>

Offense charged	Total all ages	Ages under 15	Ages under 18	Ages 18 and over	Under 10	10-12	13-14	15	16	17	18	19	20	21	22
Violent crime percent distribution <sup>1</sup>	100.0	2.8	10.1	89.9	0.1	0.6	2.1	1.9	2.5	2.9	3.3	3.3	3.3	3.4	3.4
Property crime <sup>3</sup>	985,847	38,071	132,525	853,322	744	8,230	29,097	26,432	32,126	35,896	40,381	36,076	31,824	29,720	29
Property crime percent distribution <sup>1</sup>	100.0	3.9	13.4	86.6	0.1	0.8	3.0	2.7	3.3	3.6	4.1	3.7	3.2	3.0	3.0
Other assaults	833,396	37,971	96,523	736,873	942	10,582	26,447	18,696	20,357	19,499	18,521	19,881	21,289	24,188	25
Forgery and counterfeiting	43,534	133	957	42,577	3	33	97	130	252	442	1,208	1,761	1,974	1,441	1,4
Fraud	96,948	738	3,714	93,234	8	101	629	638	994	1,344	1,904	2,639	2,865	2,711	3,0
Embezzlement	12,532	38	499	12,033	0	7	31	57	142	262	660	673	665	587	56
Stolen property; buying, receiving, possessing	77,474	1,692	8,243	69,231	15	214	1,463	1,724	2,281	2,546	3,340	3,058	2,834	2,666	2,7
Vandalism	147,959	11,632	28,842	119,117	463	3,295	7,874	5,253	5,936	6,021	5,519	5,460	5,114	5,190	5,4
Weapons; carrying, possessing, etc.	129,210	4,240	14,384	114,826	113	1,123	3,004	2,488	3,370	4,286	5,309	5,429	5,202	5,813	5,7
Prostitution and commercialized vice	28,490	30	218	28,272	0	7	23	27	57	104	672	984	1,189	1,149	1,4
Sex offenses (except rape and prostitution)	37,850	3,336	6,644	31,206	120	827	2,389	1,127	1,064	1,117	1,099	1,079	964	909	83
Drug abuse violations	1,275,812	11,111	74,088	1,201,724	76	1,637	9,398	11,207	19,430	32,340	56,274	59,879	56,539	52,608	52
Gambling	2,510	28	213	2,297	0	2	26	33	61	91	110	120	120	88	89
Offenses against the family and children	72,229	982	2,895	69,334	60	240	682	606	630	677	861	902	1,050	1,302	1,4
Driving under the influence	764,569	90	4,692	759,877	15	11	64	236	1,107	3,259	9,243	13,975	17,083	27,384	29
Liquor laws	161,277	3,055	26,107	135,170	21	304	2,730	4,131	7,013	11,908	23,774	25,043	21,057	3,813	2,7
Drunkenness	289,608	432	3,395	286,213	14	31	387	520	850	1,593	4,456	5,700	6,224	9,385	8,8
Disorderly conduct	276,987	19,227	49,041	227,946	369	4,929	13,929	9,838	10,375	9,601	8,627	8,054	7,829	9,748	9,0
Vagrancy	18,542	151	583	17,959	1	18	132	126	151	155	336	383	367	338	37

Offense charged	Total all ages	Ages under 15	Ages under 18	Ages 18 and over	Under 10	10-12	13-14	15	16	17	18	19	20	21	
All other offenses (except traffic)	2,560,932	29,317	116,023	2,444,909	763	5,615	22,939	21,934	29,051	35,721	52,027	65,245	71,723	78,171	81
Suspicion	690	17	66	624	0	7	10	18	9	22	19	20	17	16	6
Curfew and loitering law violations	23,699	6,976	23,699	-	128	1,293	5,555	5,480	6,377	4,866	-	-	-	-	-

1 Because of rounding, the percentages may not add to 100.0.

2 The rape figures in this table are aggregate totals of the data submitted based on both the legacy and revised Uniform Crime Reporting definitions.

3 Violent crimes are offenses of murder and nonnegligent manslaughter, rape, robbery, and aggravated assault. Property crimes are offenses of burglary, larceny-theft, motor vehicle theft, and arson.

\* Less than one-tenth of 1 percent.

#### Data Declaration (<https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/tables/table-38/table-38.xls/@template-layout-view?override-view=data-declaration>)

Provides the methodology used in constructing this table and other pertinent information about this table.

#### Overview

Download Printable Document (<https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/tables/table-38/table-38-overview.pdf>)

#### Arrests, by Age, 2017

- In 2017, 92.3 percent of all individuals arrested were adults (18 years of age and over). Adults comprised 89.9 percent of all persons arrested for violent crimes and 86.6 percent of persons arrested for property crimes.
- Adults accounted for 94.2 percent of persons arrested for drug abuse violations.
- In 2017, 24.6 percent of persons arrested for arson were juveniles. More than half of those juveniles (57.2 percent) were under the age of 15.
- Persons between the ages of 25 and 29 accounted for 17.3 percent of all arrestees in 2017.



# EXHIBIT 2





# CRIME

## IN CALIFORNIA

2018

**Xavier Becerra, Attorney General**  
**California Department of Justice**  
**California Justice Information Services Division**  
**Bureau of Criminal Identification and**  
**Investigative Services**  
**Criminal Justice Statistics Center**





# CRIME

---

IN CALIFORNIA

## **The Role of the Criminal Justice Statistics Center is to:**

- Collect, analyze, and report statistical data that provide valid measures of crime and the criminal justice process.
- Examine these data on an ongoing basis to better describe crime and the criminal justice system.
- Promote the responsible presentation and use of crime statistics.



**CALIFORNIA DEPARTMENT OF JUSTICE**  
**Xavier Becerra, Attorney General**

# Executive Summary

## Crime in California

### 2018

*Crime in California 2018* presents an overview of the criminal justice system in California. Current year statistics, provided by California law enforcement agencies, are presented for reported crimes, arrests, dispositions of adult felony arrests, adult probation, criminal justice personnel, civilians' complaints against peace officers, domestic violence-related calls for assistance, anti-reproductive-rights crimes, and law enforcement officers killed or assaulted.

Highlights for 2018:

#### Crime Rates per 100,000 Population

- The violent crime rate decreased 1.5 percent from 2017 to 2018, while the property crime rate decreased 5.1 percent. (Table 2)
- The homicide rate decreased 4.3 percent from 2017 to 2018. (Table 2)
- The robbery rate decreased 4.5 percent in 2018 (from 142.9 in 2017 to 136.4 in 2018). (Table 2)
- The motor vehicle theft rate decreased 8.3 percent in 2018 (from 424.9 in 2017 to 389.6 in 2018). (Table 2)
- From 2017 to 2018, the burglary and total larceny-theft rates decreased 7.3 and 3.7 percent, respectively. (Table 2)
- From 2017 to 2018, the adult total arrest rate decreased 0.1 percent, while the juvenile total arrest rate decreased 17.9 percent. (Table 17)
- From 2017 to 2018, the total felony arrest rate decreased 1.7 percent and the total misdemeanor arrest rate decreased 0.6 percent. (Table 17)
- From 2017 to 2018, the total violent offense arrest rate increased 0.3 percent. The homicide and robbery arrest rates decreased 6.1 and 2.2 percent, respectively, while the assault arrest rate increased 1.0 percent. (Table 22)
- From 2017 to 2018, the burglary and motor vehicle theft arrest rate decreased 7.9 and 8.3 percent, respectively. (Table 22)

#### Arrest Rates per 100,000 Population at Risk

- The 2018 total arrest rate of 3,527.5 is 1.1 percent lower than the 2017 total arrest rate of 3,565.2. (Table 17)
- From 2017 to 2018, the total felony drug offense arrest rate decreased 5.8 percent, with narcotics and dangerous drug offense arrest rates decreasing 6.1 and 4.3 percent, respectively. (Table 22)



- From 2017 to 2018, the total misdemeanor arrest rate decreased 0.6 percent. (Table 27)
- From 2017 to 2018, the petty theft arrest rate decreased 13.3 percent, while the assault and battery, driving under the influence, and misdemeanor drug offense arrest rates increased 1.1, 2.7, and 3.8 percent, respectively. (Table 27)

### **Dispositions – Adult Felony Arrests**

- In 2018, 65.7 percent of adult felony arrests resulted in conviction. (Table 37)
- Probation with jail continues to be the most frequent sentence given for adult felony arrest convictions. (Table 38A)
- From 2017 to 2018, the percentage of convictions resulting in incarceration in a state institution have increased from 19.6 to 20.1. (Table 40)
- From 2017 to 2018, the percentage of violent and drug offense convictions resulting in incarceration in a state institution have increased from 25.8 and 11.5 to 26.0 and 13.0, respectively. (Table 40)

### **Adult Probation**

- In 2018, the total number of adults on active probation was 209,763 - its lowest since 1984. (Table 41)
- From 2017 to 2018, there was a 12.9 percent decrease in the total rate of adults placed on probation and a 2.0 percent increase in the total rate of adults removed from probation. (Table 42)
- From 2017 to 2018, there was a 12.8 percent decrease in the rate of adults placed on probation for a felony offense, and a 13.4 percent decrease in the rate of adults placed on probation for a misdemeanor offense. (Table 42)

### **Criminal Justice Full-Time Personnel**

- From 2017 to 2018, the total number of full-time criminal justice personnel increased 0.1 percent. (Table 44)
- From 2017 to 2018, the number of law enforcement, prosecution, and public defense personnel increased 0.3, 1.6, and 0.5 percent, respectively, while the number of probation personnel decreased 2.2 percent. (Table 44)

### **Civilians' Complaints Against Peace Officers**

- The total number of reported civilians' complaints against peace officers decreased from 16,841 in 2017 to 16,525 in 2018. (Table 46)
- The total number of reported criminal complaints fell to 890, its lowest since 1987. (Table 46)

### **Domestic Violence-Related Calls For Assistance**

- The total number of domestic violence-related calls for assistance decreased from 169,362 in 2017 to 166,890 in 2018. (Table 48)
- The total number of domestic violence-related calls for assistance involving a firearm decreased from 1,429 in 2017 to 1,383 in 2018, while the number of calls involving personal weapons (hands, fists, or feet) increased from 58,493 to 60,473. (Table 48)

### **Law Enforcement Officers Killed or Assaulted**

- The total number of law enforcement officers assaulted in the line of duty increased from 10,770 in 2017 to 11,148 in 2018. (Table 49)
- In 2018, seven officers lost their lives in the line of duty, 4 feloniously and 3 accidentally. (Table 49)
- From 2017 to 2018, the number of law enforcement officers assaulted with a firearm decreased 34.3 percent, while the number assaulted with personal weapons (hands, fists, or feet) increased 7.1 percent. (Table 50)

# Understanding the Data

## CRIMES

### Uniform Crime Reporting (UCR) Program

- Crime data from the UCR Program are available from 1952 to 2018.
- The number of reported homicide, rape, and aggravated assault crimes represents known victims; while for robbery, burglary, larceny-theft, motor vehicle theft, and arson, the number represents known incidents.
- If multiple crimes occur during the same event, only the most serious (based upon a hierarchy) is counted. Arson is the exception.
- Law enforcement agencies began submitting arson crimes data in 1979; however, 1980 was the first year of complete reporting. Agencies must report as arson only fires determined through investigation to have been willfully or maliciously set. Attempts to burn are included in this offense, but fires of suspicious or unknown origins are not.
- In 2011, the lower limit of felony theft in California was raised from \$400 to \$950. It was not feasible to adjust the California Department of Justice's (DOJ) data collection process to collect the new lower limit of felony larceny-theft, and consequently, it is no longer possible to distinguish felony from misdemeanor larceny-theft. Therefore, it was decided to include total larceny-theft crime in the property crime category regardless of value.
- In 2013, the Federal Bureau of Investigation's UCR Program revised the definition of "forcible rape" (the carnal knowledge of a female forcibly and against her will) to "rape," which is now defined as "penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim."

The California DOJ implemented this definition change in January 2014. During 2014, agencies were encouraged to report using the new definition, but were allowed to report under the historical definition while transitioning their reporting systems.

All rape data is presented in this publication. Percent change in crime rates are not calculated when the base year rape data was submitted under the old definition of rape.

## ARRESTS

### Monthly Arrest and Citation Register (MACR)

- Arrest data from the MACR reporting system are available from 1957 to 2018.
- If a person is arrested for multiple offenses on the same day, MACR selects only the most serious offense based on the severity of possible punishment.
- Felony arrest counts may include some misdemeanor warrants for felony offenses.
- The subjectivity of the classification and labeling process must be considered in analyses of race/ethnic group data.
- The Bakersfield Police Department was unable to provide arrest data for February through December 1995. The Oakland Police Department was unable to provide any arrest data for 1995. Estimates for both agencies were added to the 1995 statewide totals for publication trend tables.
- Beginning in 2004, the population category of "other" for race/ethnic group includes the Department of Finance's race/ethnic group of "multi-racial."

- In 2011, there were notable changes in California law that affected arrest data. First, the lower limit of felony theft was raised from \$400 to \$950, contributing to the decline in felony theft arrests and the increase in misdemeanor theft arrests. Second, some misdemeanor marijuana statutes were re-classified as infractions, leading to a significant decline in misdemeanor marijuana arrests.
- In 2014, the definition of rape changed. Refer to the Crimes section for more detailed explanation and Appendix 3 for a list of included offenses codes.
- In November 2014, California voters passed Proposition 47 which reduced numerous state statutes from felonies to misdemeanors. Caution should be used when comparing felony and misdemeanor arrest data to prior years.
- In November 2016, California voters passed Proposition 64 which legalized the possession and use of marijuana for individuals 21 years of age and older and reduced the offense degree for numerous state statutes. Caution should be used when comparing drug offense arrests to prior years.
- "Final disposition" refers to the last adult-level legal action that is reported prior to the close of the annual file. Final disposition can occur at the law enforcement, prosecutorial, or court level. Intermediate dispositions (diversion programs, suspended proceedings, or subsequent actions) are not included in the data.
- Dispositions that occur at the law enforcement or prosecutorial level involving releases, rejections, or resolutions can be reported in one calendar year file, proceed to adjudication at the court level, and then be reported again in a subsequent year file. The law enforcement release or prosecutorial rejection reported in the prior year's file is not retroactively updated or removed.
- If a person is arrested for multiple offenses, the extract selects only the most serious offense based on the severity of possible punishment. If there are multiple dispositions, the extract selects the most serious disposition and the associated offense.
- Disposition data on state institutional commitments may vary from information compiled and reported by other state agencies because of differences in the data collection systems and criteria.

## **DISPOSITIONS OF ADULT FELONY ARRESTS**

- Adult felony arrest disposition data are extracted annually from the California Department of Justice Criminal History System. The data statistically captures the number of adult-level final dispositions that occur each year as a result of a felony arrest and are displayed by the year of disposition regardless of the year in which an arrest occurred.
- Disposition data do not reflect the actual number of final dispositions occurring each year. Fluctuations from year to year may not necessarily be the result of actual occurrences in the criminal justice system, but may reflect the degree to which reports of dispositions were reported and processed.
- The adult felony arrest disposition file includes some persons whose age at arrest was under 18. These minors received a final disposition in adult court under provisions of Welfare and Institutions Code sections 602, 707(a), 707(b), 707(c), and 707.1(a).

## ADULT PROBATION

- Probation data include adults placed on supervised probation only. Court probation, diversion, and summary probation data are not included.
- Adult probation data are limited to original grants of probation and do not include subsequent grants of probation to those already under supervised probation in the same county. Probationers are counted for each jurisdiction in which they are on probation.
- From 2001 to 2005, San Francisco did not report adult probation data. San Francisco resumed reporting in 2006.
- Counts for adults on active probation for felony offenses may also include adults on probation for misdemeanor offenses for the following counties and years: Contra Costa (2000–2018), Kern (2010–2018), Lake (2001–2012), Merced (2003–2016), Sacramento (2003–2015), Shasta (2016–2018), Siskiyou (2000–2012), Tulare (2000–2009), and Yolo (2000–2009).
- Some counties may have counted individuals on Post Release Community Supervision.
- In 2014, the San Bernardino County Probation Department discovered inaccurate probation statistics due to a flaw in their case management records system. Correcting the flaw resulted in a probation caseload decrease of 10,000 from previous years.
- In 2016, the Sacramento County Probation Department discovered that revoked and reinstated counts were not accurately reported in the data submitted for the reporting periods 2013–2015. Correcting the reporting practice resulted in a reduced beginning felony caseload for 2016.

- In October 2018, the San Joaquin County Probation Department discovered that probation caseload data had historically been inaccurately reported. An assessment of their records resulted in a decrease of both felony and misdemeanor caseloads by approximately 6,000.

## CRIMINAL JUSTICE PERSONNEL

- The UCR definition of law enforcement personnel specifies that law enforcement agencies report only personnel paid by funds designated for law enforcement.
- The 1996 data collection survey forms were revised in an attempt to collect counts on the number of criminal justice personnel employed by prosecutors, public defenders, and probation departments, regardless of the funding source. Prior to 1996, counts excluded state and federally funded positions.

## CIVILIANS' COMPLAINTS AGAINST PEACE OFFICERS

- Data on civilians' complaints against peace officers have been collected since 1981. Data are available as statewide totals only.
- Because of the nature of the requirements of Penal Code section 832.5, reporting definitions and procedures may vary among individual reporting agencies.
- Based on a survey conducted in 2004, it is estimated that approximately one-third of complaints against peace officers were made by inmates in prison and jails.
- In 2007, two law enforcement agencies adjusted their reporting policies, substantially affecting the number of reported non-criminal and felony complaints.
- In 2017, California Penal Code section 13012 was amended replacing the word citizens' with civilians'. This modification was applied to the 2018 data collection.

#### **DOMESTIC VIOLENCE-RELATED CALLS FOR ASSISTANCE**

- Reporting of domestic violence-related calls for assistance began in July 1986. The first full year of reporting was 1987.
- The definition of "domestic violence" is subject to varying interpretations by law enforcement agencies. As a result, different types of domestic relationships are included in the database.
- The San Francisco Police Department did not report domestic violence data from April 1997 to December 1999.
- Included in the data are any cases that resulted in a report being written by the responding law enforcement agencies. Therefore, data include both cases where an arrest was made and those where circumstances did not warrant an arrest.
- In April 2002, law enforcement agencies were instructed to report personal weapons (hands, fists, or feet) only if the assault resulted in an injury (aggravated assault). This instruction resulted in a notable decrease in the number of personal weapons reported.
- In 2017, California Penal Code section 13730 was amended. Beginning in 2018, law enforcement agencies were instructed to include whether there were indications that the incident involved strangulation or suffocation. This includes whether a witness or victim reported such an incident, or symptoms thereof, or whether an officer observed any other indications of strangulation or suffocation.

#### **LAW ENFORCEMENT OFFICERS KILLED OR ASSAULTED (LEOKA)**

- LEOKA data from the UCR Program are available from 1990 to 2018.
- State correctional officers and federal agents are not included in LEOKA data.

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Table 1  
**CRIMES, 1966-2018**  
 Number and Rate per 100,000 Population

Year(s)	Violent crimes					Property crimes				Arson <sup>2</sup>
	Aggravated					Motor			Total	
	Total	Homicide	Rape <sup>1</sup>	Robbery	assault	Total	Burglary	vehicle theft	larceny-theft	
Number										
2018.....	176,866	1,739	15,500	54,312	105,315	940,998	164,540	155,170	621,288	8,523
2017.....	178,553	1,829	14,724	56,609	105,391	986,769	176,638	168,327	641,804	8,650
2016.....	174,701	1,930	13,695	54,769	104,307	1,001,380	188,162	176,676	636,542	7,766
2015.....	166,588	1,861	12,793	52,785	99,149	1,023,828	197,189	170,788	655,851	7,380
2014.....	151,425	1,697	9,397	48,650	91,681	946,682	202,556	151,790	592,336	7,135
2013.....	151,634	1,745	7,459	53,621	88,809	1,018,333	231,909	165,217	621,207	7,446
2012.....	160,629	1,878	7,828	56,491	94,432	1,048,764	245,601	168,516	634,647	7,519
2011.....	155,313	1,794	7,678	54,358	91,483	974,666	230,334	147,030	597,302	7,164
2010.....	163,957	1,809	8,325	58,100	95,723	981,523	228,672	152,494	600,357	7,864
2009.....	174,579	1,970	8,698	64,006	99,905	1,006,788	229,523	163,651	613,614	9,233
2008.....	185,233	2,143	8,906	69,391	104,793	1,081,272	237,988	192,631	650,653	10,674
2007.....	191,493	2,258	9,047	70,702	109,486	1,112,366	237,759	220,126	654,481	11,400
2006.....	194,128	2,483	9,213	70,961	111,471	1,156,010	246,449	242,692	666,869	12,687
2005 <sup>a</sup> .....	189,593	2,503	9,345	63,424	114,321	1,195,381	249,563	256,998	688,820	12,272
2004.....	197,432	2,394	9,598	61,573	123,867	1,223,275	244,914	251,747	726,614	12,660
2003.....	204,591	2,402	9,918	63,597	128,674	1,209,030	240,705	240,798	727,527	13,677
2002.....	207,988	2,392	10,176	64,805	130,615	1,171,644	237,445	221,780	712,419	14,007
2001.....	210,510	2,201	9,882	63,299	135,128	1,120,487	229,922	201,074	689,491	15,060
2000.....	210,492	2,074	9,785	60,243	138,390	1,054,860	222,247	181,049	651,564	14,406
1999.....	207,874	2,006	9,443	60,027	136,398	1,053,936	223,828	168,465	661,643	14,454
1998.....	229,766	2,170	9,777	68,752	149,067	1,187,982	268,847	195,402	723,733	14,314
1997.....	257,409	2,579	10,182	81,413	163,235	1,311,157	298,882	228,540	783,735	15,875
1996.....	274,675	2,910	10,238	94,137	167,390	1,382,812	311,778	242,196	828,838	17,948
1995 <sup>b</sup> .....	304,998	3,530	10,550	104,581	186,337	1,535,960	353,817	280,317	901,826	17,105
1994.....	318,946	3,699	10,960	112,149	192,138	1,621,207	384,414	308,303	928,490	18,711
1993.....	336,100	4,095	11,754	126,347	193,904	1,676,990	413,671	319,225	944,094	20,343
1992.....	345,508	3,920	12,751	130,867	197,970	1,715,376	427,305	320,019	968,052	21,979
1991.....	330,916	3,876	12,942	125,105	188,993	1,726,455	426,066	316,631	983,758	19,375
1990.....	311,923	3,562	12,716	112,460	183,185	1,660,912	402,533	303,209	955,170	19,458
1989.....	284,015	3,159	11,956	96,424	172,476	1,680,633	410,148	298,392	972,093	19,102
1988.....	261,990	2,947	11,771	86,190	161,082	1,606,245	407,555	265,975	932,715	18,846
1987.....	254,137	2,929	12,114	83,373	155,721	1,546,647	420,182	229,695	896,770	18,490
1986.....	248,352	3,030	12,118	92,513	140,691	1,576,402	457,743	205,602	913,057	19,722
1985.....	202,066	2,781	11,442	86,464	101,379	1,519,041	449,065	177,330	892,646	20,455
1984.....	195,650	2,724	11,702	84,015	97,209	1,462,682	443,624	161,341	857,717	19,407
1983.....	194,489	2,640	12,092	85,824	93,933	1,486,292	460,401	158,899	866,992	17,705
1982.....	201,433	2,778	12,529	91,988	94,138	1,599,829	499,468	164,530	935,831	20,274
1981.....	208,165	3,140	13,545	93,638	97,842	1,622,123	539,809	162,267	920,047	24,534
1980.....	209,903	3,405	13,661	90,282	102,555	1,628,514	543,846	174,548	910,120	28,446
1979.....	183,704	2,941	12,199	75,649	92,915	1,505,448	494,736	167,244	843,468	-
1978.....	164,751	2,601	11,249	67,920	82,981	1,410,431	485,742	153,106	771,583	-
1977.....	152,827	2,481	10,715	62,207	77,424	1,364,015	462,736	144,014	757,265	-
1976.....	143,507	2,214	9,552	59,132	72,609	1,404,807	465,758	138,069	800,980	-
1975.....	138,400	2,196	8,787	59,747	67,670	1,384,429	468,433	132,933	783,063	-
1974.....	127,469	1,970	8,480	52,742	64,277	1,299,538	431,863	133,169	734,506	-
1973.....	116,506	1,862	8,349	49,524	56,771	1,181,761	407,375	131,223	643,163	-
1972.....	110,680	1,789	8,131	48,834	51,926	1,200,424	398,465	139,373	662,586	-
1971.....	104,489	1,633	7,281	47,477	48,098	1,245,966	391,157	143,911	710,898	-
1970.....	94,347	1,355	6,992	41,397	44,603	1,173,112	348,575	137,629	686,908	-
1969.....	89,191	1,376	6,958	39,212	41,645	1,082,544	321,749	131,466	629,329	-
1968.....	80,382	1,171	5,419	36,858	36,934	-	299,589	119,160	-	-
1967.....	67,671	1,051	4,430	28,508	33,682	-	265,780	97,087	-	-
1966.....	56,942	897	4,078	22,315	29,652	-	234,535	86,929	-	-

(continued)

Table 1 - continued  
**CRIMES, 1966-2018**  
 Number and Rate per 100,000 Population

Year(s)	Violent crimes					Property crimes				Arson <sup>2</sup>
	Aggravated					Motor			Total	
	Total	Homicide	Rape <sup>1</sup>	Robbery	assault	Total	Burglary	vehicle theft	larceny-theft	
Rate per 100,000 population										
2018.....	444.1	4.4	38.9	136.4	264.4	2,362.8	413.2	389.6	1,560.0	21.4
2017.....	450.7	4.6	37.2	142.9	266.1	2,491.0	445.9	424.9	1,620.2	21.8
2016.....	443.9	4.9	34.8	139.2	265.0	2,544.5	478.1	448.9	1,617.5	19.7
2015.....	426.4	4.8	32.7	135.1	253.8	2,620.4	504.7	437.1	1,678.6	18.9
2014.....	393.3	4.4	24.4	126.4	238.1	2,459.0	526.1	394.3	1,538.6	18.5
2013.....	396.9	4.6	19.5	140.4	232.5	2,665.5	607.0	432.5	1,626.0	19.5
2012.....	424.7	5.0	20.7	149.3	249.6	2,772.6	649.3	445.5	1,677.8	19.9
2011.....	413.3	4.8	20.4	144.7	243.4	2,593.7	612.9	391.3	1,589.5	19.1
2010.....	439.3	4.8	22.3	155.7	256.5	2,630.1	612.8	408.6	1,608.7	21.1
2009.....	470.9	5.3	23.5	172.6	269.5	2,715.4	619.0	441.4	1,655.0	24.9
2008.....	502.6	5.8	24.2	188.3	284.3	2,933.8	645.7	522.7	1,765.4	29.0
2007.....	523.9	6.2	24.8	193.4	299.5	3,043.2	650.5	602.2	1,790.5	31.2
2006.....	535.6	6.9	25.4	195.8	307.5	3,189.3	679.9	669.6	1,839.8	35.0
2005 <sup>a</sup> .....	526.9	7.0	26.0	176.2	317.7	3,321.8	693.5	714.2	1,914.2	34.1
2004.....	552.2	6.7	26.8	172.2	346.5	3,421.5	685.0	704.1	2,032.3	35.4
2003.....	578.1	6.8	28.0	179.7	363.6	3,416.4	680.2	680.4	2,055.8	38.6
2002.....	595.3	6.8	29.1	185.5	373.8	3,353.5	679.6	634.8	2,039.1	40.1
2001.....	609.9	6.4	28.6	183.4	391.5	3,246.6	666.2	582.6	1,997.8	43.6
2000.....	619.1	6.1	28.8	177.2	407.0	3,102.5	653.7	532.5	1,916.3	42.4
1999.....	610.7	5.9	27.7	176.4	400.7	3,096.5	657.6	495.0	1,944.0	42.5
1998.....	686.0	6.5	29.2	205.3	445.1	3,546.9	802.7	583.4	2,160.8	42.7
1997.....	781.0	7.8	30.9	247.0	495.3	3,978.4	906.9	693.4	2,378.1	48.2
1996.....	848.2	9.0	31.6	290.7	516.9	4,270.2	962.8	747.9	2,559.5	55.4
1995 <sup>b</sup> .....	951.2	11.0	32.9	326.2	581.2	4,790.4	1,103.5	874.3	2,812.7	53.3
1994.....	992.4	11.5	34.1	348.9	597.8	5,044.2	1,196.1	959.3	2,888.9	58.2
1993.....	1,058.8	12.9	37.0	398.0	610.9	5,283.2	1,303.2	1,005.7	2,974.3	64.1
1992.....	1,103.9	12.5	40.7	418.1	632.5	5,480.4	1,365.2	1,022.4	3,092.8	70.2
1991.....	1,079.8	12.6	42.2	408.2	616.7	5,633.5	1,390.3	1,033.2	3,210.1	63.2
1990.....	1,055.3	12.1	43.0	380.5	619.8	5,619.2	1,361.8	1,025.8	3,231.5	65.8
1989.....	987.2	11.0	41.6	335.1	599.5	5,841.4	1,425.6	1,037.1	3,378.7	66.4
1988.....	933.7	10.5	41.9	307.2	574.0	5,724.2	1,452.4	947.9	3,323.9	67.2
1987.....	927.9	10.7	44.2	304.4	568.6	5,647.1	1,534.2	838.7	3,274.3	67.5
1986.....	928.7	11.3	45.3	346.0	526.1	5,894.9	1,711.7	768.8	3,414.4	73.8
1985.....	773.8	10.7	43.8	331.1	388.2	5,817.3	1,719.7	679.1	3,418.4	78.3
1984.....	764.6	10.6	45.7	328.3	379.9	5,716.4	1,733.8	630.6	3,352.1	75.8
1983.....	775.6	10.5	48.2	342.3	374.6	5,927.2	1,836.1	633.7	3,457.5	70.6
1982.....	820.6	11.3	51.0	374.7	383.5	6,517.5	2,034.8	670.3	3,812.5	82.6
1981.....	866.0	13.1	56.3	389.5	407.0	6,748.0	2,245.6	675.0	3,827.4	102.1
1980.....	886.9	14.4	57.7	381.4	433.3	6,880.6	2,297.8	737.5	3,845.3	120.2
1979.....	790.0	12.6	52.5	325.3	399.5	6,473.7	2,127.4	719.2	3,627.0	-
1978.....	721.4	11.4	49.3	297.4	363.3	6,175.5	2,126.8	670.4	3,378.4	-
1977.....	683.8	11.1	47.9	278.3	346.4	6,103.0	2,070.4	644.4	3,388.2	-
1976.....	654.2	10.1	43.5	269.6	331.0	6,404.4	2,123.4	629.4	3,651.6	-
1975.....	642.6	10.2	40.8	277.4	314.2	6,428.1	2,175.0	617.2	3,635.9	-
1974.....	602.0	9.3	40.1	249.1	303.6	6,137.7	2,039.7	629.0	3,469.1	-
1973.....	558.3	8.9	40.0	237.3	272.0	5,663.0	1,952.2	628.8	3,082.1	-
1972.....	537.7	8.7	39.5	237.2	252.3	5,831.5	1,935.7	677.1	3,218.8	-
1971.....	513.6	8.0	35.8	233.3	236.4	6,123.9	1,922.5	707.3	3,494.0	-
1970.....	470.8	6.8	34.9	206.6	222.6	5,854.1	1,739.5	686.8	3,427.9	-
1969.....	449.2	6.9	35.0	197.5	209.7	5,452.0	1,620.4	662.1	3,169.5	-
1968.....	411.1	6.0	27.7	188.5	188.9	-	1,532.1	609.4	-	-
1967.....	347.4	5.4	22.7	146.4	172.9	-	1,364.5	498.4	-	-
1966.....	297.6	4.7	21.3	116.6	155.0	-	1,225.9	454.4	-	-

Notes: Rates may not add to totals because of rounding.

Rates are based on annual population estimates provided by the Demographic Research Unit, California Department of Finance (see Table 52).

Dash indicates data not available.

<sup>a</sup> Prior to 2005, the Los Angeles Police Department had included child abuse and domestic violence simple assaults in its aggravated assault statistics. This change may have contributed to the large decrease in aggravated assaults from 2004 to 2005.

<sup>b</sup> Includes estimated annual 1995 data provided by the Oakland Police Department.

<sup>1</sup> In 2014, the crime of "forcible rape" was changed to "rape." The definition was expanded to include both male and female victims and reflects the various forms of sexual penetration understood to be rape. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

<sup>2</sup> Data for arson crimes are not available prior to 1980. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

Table 2  
**CRIMES, 2013-2018**  
 Number, Rate per 100,000 Population, and Percent Change

Year(s)	Violent crimes					Property crimes				Arson
	Total	Homicide	Rape <sup>1</sup>	Robbery	Aggra- vated assault	Total	Burglary	Motor vehicle		
								theft	larceny-theft	
Number										
2018.....	176,866	1,739	15,500	54,312	105,315	940,998	164,540	155,170	621,288	8,523
2017.....	178,553	1,829	14,724	56,609	105,391	986,769	176,638	168,327	641,804	8,650
2016.....	174,701	1,930	13,695	54,769	104,307	1,001,380	188,162	176,676	636,542	7,766
2015.....	166,588	1,861	12,793	52,785	99,149	1,023,828	197,189	170,788	655,851	7,380
2014.....	151,425	1,697	9,397	48,650	91,681	946,682	202,556	151,790	592,336	7,135
2013.....	151,634	1,745	7,459	53,621	88,809	1,018,333	231,909	165,217	621,207	7,446
Percent change in number										
2017 to 2018.....	-0.9	-4.9	5.3	-4.1	-0.1	-4.6	-6.8	-7.8	-3.2	-1.5
2016 to 2017.....	2.2	-5.2	7.5	3.4	1.0	-1.5	-6.1	-4.7	0.8	11.4
2015 to 2016.....	4.9	3.7	7.1	3.8	5.2	-2.2	-4.6	3.4	-2.9	5.2
2014 to 2015.....	10.0	9.7	-	8.5	8.1	8.1	-2.6	12.5	10.7	3.4
2013 to 2014.....	-0.1	-2.8	-	-9.3	3.2	-7.0	-12.7	-8.1	-4.6	-4.2
2013 to 2018.....	16.6	-0.3	-	1.3	18.6	-7.6	-29.0	-6.1	0.0	14.5
Rate per 100,000 population <sup>2</sup>										
2018.....	444.1	4.4	38.9	136.4	264.4	2,362.8	413.2	389.6	1,560.0	21.4
2017.....	450.7	4.6	37.2	142.9	266.1	2,491.0	445.9	424.9	1,620.2	21.8
2016.....	443.9	4.9	34.8	139.2	265.0	2,544.5	478.1	448.9	1,617.5	19.7
2015.....	426.4	4.8	32.7	135.1	253.8	2,620.4	504.7	437.1	1,678.6	18.9
2014.....	393.3	4.4	24.4	126.4	238.1	2,459.0	526.1	394.3	1,538.6	18.5
2013.....	396.9	4.6	19.5	140.4	232.5	2,665.5	607.0	432.5	1,626.0	19.5
Percent change in rate										
2017 to 2018.....	-1.5	-4.3	4.6	-4.5	-0.6	-5.1	-7.3	-8.3	-3.7	-1.8
2016 to 2017.....	1.5	-6.1	6.9	2.7	0.4	-2.1	-6.7	-5.3	0.2	10.7
2015 to 2016.....	4.1	2.1	6.4	3.0	4.4	-2.9	-5.3	2.7	-3.6	4.2
2014 to 2015.....	8.4	9.1	-	6.9	6.6	6.6	-4.1	10.9	9.1	2.2
2013 to 2014.....	-0.9	-4.3	-	-10.0	2.4	-7.7	-13.3	-8.8	-5.4	-5.1
2013 to 2018.....	11.9	-4.3	-	-2.8	13.7	-11.4	-31.9	-9.9	-4.1	9.7

Notes: Rates may not add to totals because of rounding.

Dash indicates that a percent change was not calculated due to data definition change.

<sup>1</sup> In 2014, the crime of "forcible rape" was changed to "rape." The definition was expanded to include both male and female victims and reflects the various forms of sexual penetration understood to be rape. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

<sup>2</sup> Rates are based on annual population estimates provided by the Demographic Research Unit, California Department of Finance (see Table 52).

Table 3  
**CRIMES, 2013-2018**  
By Category and Crime

Category and crime	2013		2014		2015		2016		2017		2018	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Crimes within category												
Violent crimes.....	151,634	100.0	151,425	100.0	166,588	100.0	174,701	100.0	178,553	100.0	176,866	100.0
Homicide.....	1,745	1.2	1,697	1.1	1,861	1.1	1,930	1.1	1,829	1.0	1,739	1.0
Rape <sup>1</sup> .....	7,459	4.9	9,397	6.2	12,793	7.7	13,695	7.8	14,724	8.2	15,500	8.8
Robbery.....	53,621	35.4	48,650	32.1	52,785	31.7	54,769	31.4	56,609	31.7	54,312	30.7
Aggravated assault.....	88,809	58.6	91,681	60.5	99,149	59.5	104,307	59.7	105,391	59.0	105,315	59.5
Property crimes.....	1,018,333	100.0	946,682	100.0	1,023,828	100.0	1,001,380	100.0	986,769	100.0	940,998	100.0
Burglary.....	231,909	22.8	202,556	21.4	197,189	19.3	188,162	18.8	176,638	17.9	164,540	17.5
Motor vehicle theft.....	165,217	16.2	151,790	16.0	170,788	16.7	176,676	17.6	168,327	17.1	155,170	16.5
Total larceny-theft.....	621,207	61.0	592,336	62.6	655,851	64.1	636,542	63.6	641,804	65.0	621,288	66.0

Note: Percentages may not add to 100.0 because of rounding.

<sup>1</sup> In 2014, the crime of "forcible rape" was changed to "rape." The definition was expanded to include both male and female victims and reflects the various forms of sexual penetration understood to be rape. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

Table 4  
**HOMICIDE CRIMES, 2013-2018**  
By Type of Weapon Used

Type of weapon used	2013		2014		2015		2016		2017		2018		Percent change	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	2013-2017	2017-2018
Total.....	1,745	46	1,697	37	1,861	40	1,930	28	1,829	33	1,739	25		
Unknown.....														
Known.....	1,699	100.0	1,660	100.0	1,821	100.0	1,902	100.0	1,796	100.0	1,714	100.0	0.9	-4.6
Firearm.....	1,225	72.1	1,169	70.4	1,276	70.1	1,368	71.9	1,274	70.9	1,178	68.7	-3.8	-7.5
Knife or cutting instrument.....	238	14.0	256	15.4	263	14.4	280	14.7	258	14.4	252	14.7	5.9	-2.3
Blunt object <sup>1</sup> .....	76	4.5	65	3.9	97	5.3	89	4.7	76	4.2	112	6.5	47.4	47.4
Personal weapon <sup>2</sup> .....	92	5.4	97	5.8	90	4.9	89	4.7	103	5.7	87	5.1	-5.4	-15.5
Other.....	68	4.0	73	4.4	95	5.2	76	4.0	85	4.7	85	5.0	25.0	0.0

Note: Percentages may not add to 100.0 because of rounding.

<sup>1</sup> Club, etc.

<sup>2</sup> Hands, feet, etc.

Table 5  
**RAPE CRIMES, 2013-2018**  
By Type

	2013		2014		2015		2016		2017		2018		Percent change	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	2013-2018	2017-2018
Total.....	7,459	100.0	9,397	100.0	12,793	100.0	13,695	100.0	14,724	100.0	15,500	100.0	-	5.3
Rape by force.....	6,665	89.4	8,562	91.1	11,827	92.4	12,785	93.4	13,799	93.7	14,526	93.7	-	5.3
Attempts to commit forcible rape.....	794	10.6	835	8.9	966	7.6	910	6.6	925	6.3	974	6.3	-	5.3

Notes: In 2014, the crime of "forcible rape" was changed to "rape." The definition was expanded to include both male and female victims and reflects the various forms of sexual penetration understood to be rape. For additional information, see Appendix 1, Data Characteristics and Known Limitations.  
Dash indicates that a percent change was not calculated due to data definition change.

Table 6  
**ROBBERY CRIMES, 2013-2018**  
By Location, Type of Robbery, and Type of Weapon Used

Location, type of robbery, and weapon	2013		2014		2015		2016		2017		2018		Percent change	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	2013-2018	2017-2018
Total.....	53,621	100.0	48,650	100.0	52,785	100.0	54,769	100.0	56,609	100.0	54,312	100.0	1.3	-4.1
Total														
Location														
Highway <sup>1</sup> .....	24,463	45.6	22,052	45.3	22,872	43.3	22,953	41.9	22,494	39.7	21,231	39.1	-13.2	-5.6
Commercial <sup>2</sup> .....	11,544	21.5	11,145	22.9	13,669	25.9	14,512	26.5	16,040	28.3	15,620	28.8	35.3	-2.6
Residence.....	4,794	8.9	4,370	9.0	4,283	8.1	4,730	8.6	4,504	8.0	4,343	8.0	-9.4	-3.6
Bank.....	784	1.5	696	1.4	662	1.3	669	1.2	596	1.1	568	1.0	-27.6	-4.7
Other <sup>3</sup> .....	12,036	22.4	10,387	21.4	11,299	21.4	11,905	21.7	12,975	22.9	12,550	23.1	4.3	-3.3
Type of robbery														
Armed.....	26,004	48.5	22,917	47.1	25,385	48.1	26,764	48.9	27,128	47.9	25,070	46.2	-3.6	-7.6
Strong-arm <sup>4</sup> .....	27,617	51.5	25,733	52.9	27,400	51.9	28,005	51.1	29,481	52.1	29,242	53.8	5.9	-0.8
Type of weapon used														
Armed.....	26,004	100.0	22,917	100.0	25,385	100.0	26,764	100.0	27,128	100.0	25,070	100.0	-3.6	-7.6
Firearm.....	16,274	62.6	13,546	59.1	14,706	57.9	15,490	57.9	15,349	56.6	13,501	53.9	-17.0	-12.0
Knife or cutting instrument.....	4,641	17.8	4,553	19.9	5,028	19.8	5,207	19.5	5,277	19.5	5,031	20.1	8.4	-4.7
Other dangerous weapon.....	5,089	19.6	4,818	21.0	5,651	22.3	6,067	22.7	6,502	24.0	6,538	26.1	28.5	0.6

Notes: Percentages may not add to 100.0 because of rounding.  
Data may not match previously published data.

<sup>1</sup> Streets, parks, parking lots, etc.

<sup>2</sup> Commercial house, gas or service station, convenience store, etc.

<sup>3</sup> Churches, schools, government buildings, trains, wooded areas, etc.

<sup>4</sup> Muggings and similar offenses where no weapon is used, but strong-arm tactics (limited to the use of personal weapons such as hands, arms, feet, fists, teeth, etc.) are employed or their use is threatened.

Table 7  
**ASSAULT CRIMES, 2013-2018**  
 By Type of Assault and Type of Weapon Used

Type of assault and weapon used	2013		2014		2015		2016		2017		2018		Percent change	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	2013-2018	2017-2018
Total.....	316,140		332,396		350,587		357,126		363,977		367,972		16.4	1.1
Aggravated assault.....	88,809	100.0	91,681	100.0	99,149	100.0	104,307	100.0	105,391	100.0	105,315	100.0	18.6	-0.1
Firearm.....	15,610	17.6	15,801	17.2	18,286	18.4	20,633	19.8	19,157	18.2	17,908	17.0	14.7	-6.5
Knife or cutting instrument.....	14,504	16.3	14,859	16.2	17,100	17.2	17,157	16.4	17,123	16.2	16,936	16.1	16.8	-1.1
Other dangerous weapon.....	30,008	33.8	32,481	35.4	33,985	34.3	36,048	34.6	36,579	34.7	36,494	34.7	21.6	-0.2
Personal weapon <sup>1</sup> .....	28,687	32.3	28,540	31.1	29,778	30.0	30,469	29.2	32,532	30.9	33,977	32.3	18.4	4.4
Not-aggravated assault <sup>2</sup> .....	227,331		240,715		251,438		252,819		258,586		262,657		15.5	1.6

Note: Percentages may not add to 100.0 because of rounding.

<sup>1</sup> Hands, feet, etc.

<sup>2</sup> Assaults that do not involve the use of a firearm, knife, cutting instrument, or other dangerous weapon and in which there are no serious or aggravated injuries to the victims. Not-aggravated (simple) assaults are not included in the violent crime count. This category is shown here as a means of quality control and for the purpose of looking at total assault violence.

Table 8  
**BURGLARY CRIMES, 2013-2018**  
 By Location, Time of Day, Type of Burglary, and Type of Entry

Location, time of day, type of burglary, and type of entry	2013		2014		2015		2016		2017		2018		Percent change	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	2013- 2018	2017- 2018
Total														
Total.....	231,909	100.0	202,556	100.0	197,189	100.0	188,162	100.0	176,638	100.0	164,540	100.0	-29.0	-6.8
Location														
Residence.....	147,240	63.5	125,136	61.8	120,297	61.0	108,783	57.8	95,942	54.3	85,693	52.1	-41.8	-10.7
Nonresidence.....	84,669	36.5	77,420	38.2	76,892	39.0	79,379	42.2	80,696	45.7	78,847	47.9	-6.9	-2.3
Time of day														
Daytime.....	99,771	43.0	82,234	40.6	75,560	38.3	68,041	36.2	60,582	34.3	55,694	33.8	-44.2	-8.1
Nighttime.....	65,872	28.4	57,321	28.3	59,308	30.1	61,161	32.5	60,180	34.1	57,725	35.1	-12.4	-4.1
Unknown.....	66,266	28.6	63,001	31.1	62,321	31.6	58,960	31.3	55,876	31.6	51,121	31.1	-22.9	-8.5
Type of burglary														
Burglary.....	219,172	94.5	191,190	94.4	186,176	94.4	177,426	94.3	166,705	94.4	155,306	94.4	-29.1	-6.8
Attempted burglary.....	12,737	5.5	11,366	5.6	11,013	5.6	10,736	5.7	9,933	5.6	9,234	5.6	-27.5	-7.0
Type of entry														
Burglary.....	219,172	100.0	191,190	100.0	186,176	100.0	177,426	100.0	166,705	100.0	155,306	100.0	-29.1	-6.8
Force.....	132,626	60.5	112,803	59.0	115,641	62.1	112,906	63.6	109,141	65.5	102,415	65.9	-22.8	-6.2
No force.....	86,546	39.5	78,387	41.0	70,535	37.9	64,520	36.4	57,564	34.5	52,891	34.1	-38.9	-8.1

Notes: Percentages may not add to 100.0 because of rounding.

Data may not match previously published data.



Table 9  
**MOTOR VEHICLE THEFT CRIMES, 2013-2018**  
By Type of Vehicle

Type of vehicle	2013		2014		2015		2016		2017		2018		Percent change	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	2013-2018	2017-2018
Total.....	165,217	100.0	151,790	100.0	170,788	100.0	176,676	100.0	168,327	100.0	155,170	100.0	-6.1	-7.8
Autos.....	128,370	77.7	120,088	79.1	136,119	79.7	138,391	78.3	123,726	73.5	110,141	71.0	-14.2	-11.0
Trucks and buses <sup>1</sup> .....	25,145	15.2	21,816	14.4	23,365	13.7	26,040	14.7	32,127	19.1	33,524	21.6	33.3	4.3
Other vehicles <sup>2</sup> .....	11,702	7.1	9,886	6.5	11,304	6.6	12,245	6.9	12,474	7.4	11,505	7.4	-1.7	-7.8

Note: Percentages may not add to 100.0 because of rounding.

<sup>1</sup> Includes pickup trucks, vans, and motor homes.

<sup>2</sup> Includes motorcycles, snowmobiles, motor scooters, trail bikes, etc.

Table 10  
**LARCENY-THEFT CRIMES, 2013-2018**  
Number, Rate per 100,000 Population, and Percent Change

Value categories	2013	2014	2015	2016	2017	2018	Percent change	
							2013-2018	2017-2018
Number								
Total.....	621,207	592,336	655,851	636,542	641,804	621,288	0.0	-3.2
Under \$50.....	190,412	181,375	204,858	201,738	185,186	161,456	-15.2	-12.8
\$50-\$199.....	112,284	110,108	120,590	112,408	108,836	105,185	-6.3	-3.4
\$200-\$400.....	90,476	85,033	91,947	86,853	86,436	84,523	-6.6	-2.2
Over \$400.....	228,035	215,820	238,456	235,543	261,346	270,124	18.5	3.4
Rate per 100,000 population <sup>1</sup>								
Total.....	1,626.0	1,538.6	1,678.6	1,617.5	1,620.2	1,560.0	-4.1	-3.7
Under \$50.....	498.4	471.1	524.3	512.6	467.5	405.4	-18.7	-13.3
\$50-\$199.....	293.9	286.0	308.6	285.6	274.7	264.1	-10.1	-3.9
\$200-\$400.....	236.8	220.9	235.3	220.7	218.2	212.2	-10.4	-2.7
Over \$400.....	596.9	560.6	610.3	598.5	659.7	678.3	13.6	2.8

Note: Rates may not add to total because of rounding.

<sup>1</sup> Rates are based on annual population estimates provided by the Demographic Research Unit, California Department of Finance (see Table 52).

Table 11  
**LARCENY-THEFT CRIMES, 2013-2018**  
By Type and Value Categories

Type of larceny-theft and value categories	2013		2014		2015		2016		2017		2018		Percent change 2013-2018		2017-2018
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	2013-2018	2018	
<b>Total</b>	<b>621,207</b>	<b>100.0</b>	<b>592,336</b>	<b>100.0</b>	<b>655,851</b>	<b>100.0</b>	<b>636,542</b>	<b>100.0</b>	<b>641,804</b>	<b>100.0</b>	<b>621,288</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-3.2</b>
<b>Type of larceny-theft</b>															
Shoplifting.....	93,532	15.1	97,301	16.4	108,659	16.6	98,589	15.5	91,553	14.3	89,378	14.4	-4.4	-4.4	-2.4
From motor vehicles.....	217,029	34.9	202,916	34.3	235,419	35.9	238,185	37.4	256,625	40.0	243,040	39.1	12.0	12.0	-5.3
Motor vehicle accessories.....	46,320	7.5	48,029	8.1	53,541	8.2	51,656	8.1	51,897	8.1	51,872	8.3	12.0	12.0	0.0
Bicycles.....	34,747	5.6	33,095	5.6	36,554	5.6	31,739	5.0	28,996	4.5	27,336	4.4	-21.3	-21.3	-5.7
From buildings.....	77,017	12.4	80,294	13.6	77,023	11.7	72,225	11.3	69,892	10.9	69,324	11.2	-10.0	-10.0	-0.8
All other.....	152,562	24.6	130,701	22.1	144,655	22.1	144,148	22.6	142,841	22.3	140,338	22.6	-8.0	-8.0	-1.8
Pocket-picking.....	3,478	0.6	3,293	0.6	3,783	0.6	3,903	0.6	4,874	0.8	5,228	0.8	50.3	50.3	7.3
Purse-snatching.....	2,863	0.5	2,706	0.5	2,790	0.4	2,472	0.4	2,599	0.4	2,312	0.4	-19.2	-19.2	-11.0
From coin machines.....	1,599	0.3	1,230	0.2	1,307	0.2	1,468	0.2	1,406	0.2	1,037	0.2	-35.1	-35.1	-26.2
Other.....	144,622	23.3	123,472	20.8	136,775	20.9	136,305	21.4	133,962	20.9	131,761	21.2	-8.9	-8.9	-1.6
<b>Value categories</b>															
Under \$50.....	190,412	30.7	181,375	30.6	204,858	31.2	201,738	31.7	185,186	28.9	161,456	26.0	-15.2	-15.2	-12.8
\$50 to \$199.....	112,284	18.1	110,108	18.6	120,590	18.4	112,408	17.7	108,836	17.0	105,185	16.9	-6.3	-6.3	-3.4
\$200 to \$400.....	90,476	14.6	85,033	14.4	91,947	14.0	86,853	13.6	86,436	13.5	84,523	13.6	-6.6	-6.6	-2.2
Over \$400.....	228,035	36.7	215,820	36.4	238,456	36.4	235,543	37.0	261,346	40.7	270,124	43.5	18.5	18.5	3.4

Note: Percentages may not add to subtotals or 100.0 because of rounding.

Table 12  
**VALUE OF STOLEN AND RECOVERED PROPERTY, 2013-2018**  
By Type and Percent Change  
(Value Shown in Thousands of Dollars)

Year(s)	Stolen						Recovered						Percent recovered to stolen <sup>1</sup>		
	Total		Motor vehicles		All other		Total		Motor vehicles		All other		Total		other
	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent	
2018.....	\$2,895,111	100.0	1,115,651	38.5	1,779,458	61.5	\$953,648	100.0	749,514	78.6	204,134	21.4	32.9	67.2	11.5
2017.....	\$2,684,284	100.0	1,089,849	40.6	1,594,435	59.4	\$940,499	100.0	744,369	79.1	196,130	20.9	35.0	68.3	12.3
2016.....	\$2,633,591	100.0	1,074,038	40.8	1,559,553	59.2	\$777,928	100.0	706,114	90.8	71,814	9.2	29.5	65.7	4.6
2015.....	\$2,467,550	100.0	970,117	39.3	1,497,433	60.7	\$743,433	100.0	636,399	85.6	107,033	14.4	30.1	65.6	7.1
2014.....	\$2,179,803	100.0	766,902	35.2	1,412,901	64.8	\$567,270	100.0	488,560	86.1	78,710	13.9	26.0	63.7	5.6
2013.....	\$2,349,034	100.0	812,081	34.6	1,536,953	65.4	\$571,801	100.0	500,022	87.4	71,778	12.6	24.3	61.6	4.7
<b>Percent change in value</b>															
2017 to 2018.....	7.9		2.4		11.6		1.4		0.7		4.1				
2013 to 2018.....	23.2		37.4		15.8		66.8		49.9		184.4				

Note: Values may not add to total because of rounding.

<sup>1</sup> Percent recovered is the ratio of the value of property recovered within the year to the value of property stolen within the same year.

Table 13  
**VALUE OF STOLEN AND RECOVERED PROPERTY, 2013-2018**  
 By Type of Property  
 (Value Shown in Thousands of Dollars)

Type of property		2013		2014		2015		2016		2017		2018		Percent change	
		Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent	2013-2017	2017-2018
Stolen															
Total.....	\$2,349,034	100.0	\$2,179,803	100.0	\$2,467,550	100.0	\$2,633,590	100.0	\$2,684,284	100.0	\$2,895,111	100.0	23.2	7.9	
Currency, notes, etc.....	184,900	7.9	175,146	8.0	191,305	7.8	196,792	7.5	208,500	7.8	249,173	8.6	34.8	19.5	
Jewelry and precious metals.....	371,884	15.8	354,643	16.3	340,421	13.8	358,869	13.6	292,533	10.9	334,480	11.6	-10.1	14.3	
Clothing and furs.....	70,537	3.0	79,612	3.7	91,103	3.7	95,688	3.6	100,178	3.7	113,872	3.9	61.4	13.7	
Motor vehicles.....	812,081	34.6	766,902	35.2	970,117	39.3	1,074,038	40.8	1,089,849	40.6	1,115,651	38.5	37.4	2.4	
Office equipment.....	138,910	5.9	111,164	5.1	139,353	5.6	123,232	4.7	122,975	4.6	132,897	4.6	-4.3	8.1	
Televisions, radios, stereos, etc.....	97,819	4.2	82,442	3.8	87,926	3.6	75,512	2.9	77,467	2.9	66,709	2.3	-31.8	-13.9	
Firearms.....	19,301	0.8	13,067	0.6	16,919	0.7	13,302	0.5	12,695	0.5	18,832	0.7	-2.4	48.3	
Household goods.....	44,937	1.9	43,014	2.0	42,151	1.7	39,606	1.5	39,278	1.5	41,478	1.4	-7.7	5.6	
Consumable goods.....	21,541	0.9	20,270	0.9	24,212	1.0	30,526	1.2	29,989	1.1	31,258	1.1	45.1	4.2	
Livestock.....	1,090	0.0	937	0.0	1,224	0.0	948	0.0	1,203	0.0	1,023	0.0	-6.1	-15.0	
Other <sup>1</sup> .....	586,034	24.9	532,608	24.4	562,819	22.8	625,077	23.7	709,616	26.4	789,736	27.3	34.8	11.3	
Recovered															
Total.....	\$571,801	100.0	\$567,270	100.0	\$743,433	100.0	\$777,929	100.0	\$940,499	100.0	\$953,648	100.0	66.8	1.4	
Currency, notes, etc.....	4,433	0.8	3,593	0.6	6,521	0.9	3,640	0.5	3,145	0.3	5,396	0.6	21.7	71.6	
Jewelry and precious metals.....	9,405	1.6	6,980	1.2	7,360	1.0	5,705	0.7	5,634	0.6	10,772	1.1	14.5	91.2	
Clothing and furs.....	5,229	0.9	8,414	1.5	29,283	3.9	6,272	0.8	6,210	0.7	5,626	0.6	7.6	-9.4	
Motor vehicles.....	500,022	87.4	488,560	86.1	636,399	85.6	706,114	90.8	744,369	79.1	749,514	78.6	49.9	0.7	
Office equipment.....	4,174	0.7	4,139	0.7	4,894	0.7	4,632	0.6	3,802	0.4	3,656	0.4	-12.4	-3.8	
Televisions, radios, stereos, etc.....	3,347	0.6	3,075	0.5	2,949	0.4	2,603	0.3	2,486	0.3	3,823	0.4	14.2	53.8	
Firearms.....	914	0.2	774	0.1	887	0.1	917	0.1	1,417	0.2	972	0.1	6.3	-31.4	
Household goods.....	1,423	0.2	1,542	0.3	1,589	0.2	1,570	0.2	1,550	0.2	1,354	0.1	-4.8	-12.6	
Consumable goods.....	1,941	0.3	3,009	0.5	2,577	0.3	3,290	0.4	2,337	0.2	3,004	0.3	54.8	28.5	
Livestock.....	59	0.0	73	0.0	133	0.0	102	0.0	89	0.0	112	0.0	89.8	25.8	
Other <sup>1</sup> .....	40,851	7.1	47,112	8.3	50,840	6.8	43,084	5.5	169,460	18.0	169,419	17.8	314.7	0.0	

Note: Values and percentages may not add to total or 100.0 because of rounding.

<sup>1</sup> The "Other" category includes personal electronic devices.

Table 14  
**ARSON CRIMES, 2013-2018**  
By Type of Property and Value of Property Damage  
(Value Shown in Thousands of Dollars)

Type of property	2013		2014		2015		2016		2017		2018		Percent change	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	2013-2018	2017-2018
Total.....	7,446	100.0	7,135	100.0	7,380	100.0	7,766	100.0	8,650	100.0	8,523	100.0	14.5	-1.5
Total structural property.....	2,528	34.0	2,459	34.5	2,450	33.2	2,805	36.1	3,175	36.7	2,825	33.1	11.7	-11.0
Residential.....	1,224	16.4	1,244	17.4	1,280	17.3	1,362	17.5	1,477	17.1	1,275	15.0	4.2	-13.7
Single occupancy.....	811	10.9	817	11.5	888	12.0	915	11.8	1,001	11.6	853	10.0	5.2	-14.8
Other <sup>2</sup> .....	413	5.5	427	6.0	392	5.3	447	5.8	476	5.5	422	5.0	2.2	-11.3
Storage <sup>3</sup> .....	124	1.7	128	1.8	116	1.6	124	1.6	144	1.7	121	1.4	-2.4	-16.0
Commercial.....	386	5.2	397	5.6	446	6.0	485	6.2	651	7.5	604	7.1	56.5	-7.2
Industrial, manufacturing.....	31	0.4	32	0.4	38	0.5	29	0.4	61	0.7	49	0.6	58.1	-19.7
Other <sup>4</sup> .....	355	4.8	365	5.1	408	5.5	456	5.9	590	6.8	555	6.5	56.3	-5.9
Community/public <sup>5</sup> .....	550	7.4	421	5.9	394	5.3	518	6.7	572	6.6	497	5.8	-9.6	-13.1
Other <sup>6</sup> .....	244	3.3	269	3.8	214	2.9	316	4.1	331	3.8	328	3.8	34.4	-0.9
Total mobile property.....	1,822	24.5	1,825	25.6	1,853	25.1	1,943	25.0	1,979	22.9	2,047	24.0	12.3	3.4
Motor vehicles <sup>7</sup> .....	1,747	23.5	1,750	24.5	1,751	23.7	1,843	23.7	1,876	21.7	1,953	22.9	11.8	4.1
Other <sup>8</sup> .....	75	1.0	75	1.1	102	1.4	100	1.3	103	1.2	94	1.1	25.3	-8.7
Other property <sup>9</sup> .....	3,096	41.6	2,851	40.0	3,077	41.7	3,018	38.9	3,496	40.4	3,651	42.8	17.9	4.4
Value of property damage														
Total.....	\$100,272	100.0	\$140,455	100.0	\$137,059	100.0	\$104,359	100.0	\$261,135	100.0	\$172,672	100.0	72.2	-33.9
Total structural property.....	77,876	77.7	119,819	85.3	111,938	81.7	84,389	80.9	212,531	81.4	147,727	85.6	89.7	-30.5
Residential.....	43,940	43.8	46,587	33.2	47,604	34.7	40,253	38.6	49,502	19.0	104,647	60.6	138.2	111.4
Single occupancy <sup>1</sup> .....	30,970	30.9	35,158	25.0	35,956	26.2	27,856	26.7	38,298	14.7	35,830	20.8	15.7	-6.4
Other <sup>2</sup> .....	12,970	12.9	11,429	8.1	11,648	8.5	12,397	11.9	11,204	4.3	68,817	39.9	430.6	514.2
Storage <sup>3</sup> .....	1,871	1.9	1,542	1.1	2,645	1.9	2,719	2.6	7,645	2.9	2,167	1.3	15.8	-71.7
Commercial.....	23,204	23.1	34,313	24.4	54,262	39.6	36,037	34.5	124,773	47.8	35,181	20.4	51.6	-71.8
Industrial, manufacturing.....	8,909	8.9	9,565	6.8	31,456	23.0	1,727	1.7	2,819	1.1	8,956	5.2	0.5	217.7
Other <sup>4</sup> .....	14,295	14.3	24,748	17.6	22,806	16.6	34,310	32.9	121,954	46.7	26,225	15.2	83.5	-78.5
Community/public <sup>5</sup> .....	6,829	6.8	8,889	6.3	5,316	3.9	4,033	3.9	29,358	11.2	3,924	2.3	-42.5	-86.6
Other <sup>6</sup> .....	2,031	2.0	28,488	20.3	2,111	1.5	1,347	1.3	1,251	0.5	1,809	1.0	-10.9	44.6
Total mobile property.....	16,542	16.5	15,543	11.1	16,848	12.3	15,755	15.1	17,106	6.6	17,504	10.1	5.8	2.3
Motor vehicles <sup>7</sup> .....	15,170	15.1	14,957	10.6	15,390	11.2	14,698	14.1	16,187	6.2	16,605	9.6	9.5	2.6
Other <sup>8</sup> .....	1,373	1.4	586	0.4	1,458	1.1	1,057	1.0	919	0.4	899	0.5	-34.5	-2.2
Other property <sup>9</sup> .....	5,854	5.8	5,092	3.6	8,273	6.0	4,215	4.0	31,498	12.1	7,441	4.3	27.1	-76.4

Notes: Values and percentages may not add to subtotals, total, or 100.0 because of rounding.

Property type is determined by the point of origin of a fire.

<sup>1</sup> Single occupancy - houses, townhouses, duplexes, etc.

<sup>2</sup> Other residential - apartments, tenements, hotels, motels, etc.

<sup>3</sup> Storage - barns, garages, warehouses, etc.

<sup>4</sup> Other commercial - stores, restaurants, offices, etc.

<sup>5</sup> Community/public - churches, jails, schools, hospitals, etc.

<sup>6</sup> Other structural property - outbuildings, buildings under construction, etc.

<sup>7</sup> Motor vehicles - autos, trucks, buses, etc.

<sup>8</sup> Other mobile property - trailers, recreational vehicles, airplanes, boats, etc.

<sup>9</sup> Other property - crops, timber, fences, etc.

Table 15  
**CRIMES CLEARED, 2013-2018**  
 Number of Crimes, Clearances, and Clearance Rate

Crimes, clearances, and clearance rates	2013	2014	2015	2016	2017	2018	Percent change	
							2013- 2018	2017- 2018
Number of crimes reported								
Violent crimes.....	151,634	151,425	166,588	174,701	178,553	176,866	16.6	-0.9
Homicide.....	1,745	1,697	1,861	1,930	1,829	1,739	-0.3	-4.9
Rape <sup>1</sup> .....	7,459	9,397	12,793	13,695	14,724	15,500	-	5.3
Robbery.....	53,621	48,650	52,785	54,769	56,609	54,312	1.3	-4.1
Aggravated assault.....	88,809	91,681	99,149	104,307	105,391	105,315	18.6	-0.1
Property crimes.....	1,018,333	946,682	1,023,828	1,001,380	986,769	940,998	-7.6	-4.6
Burglary.....	231,909	202,556	197,189	188,162	176,638	164,540	-29.0	-6.8
Motor vehicle theft.....	165,217	151,790	170,788	176,676	168,327	155,170	-6.1	-7.8
Total larceny-theft.....	621,207	592,336	655,851	636,542	641,804	621,288	0.0	-3.2
Arson.....	7,446	7,135	7,380	7,766	8,650	8,523	14.5	-1.5
Number of clearances								
Violent crimes.....	69,135	71,420	76,342	77,997	80,122	79,687	15.3	-0.5
Homicide.....	1,146	1,091	1,145	1,140	1,144	1,116	-2.6	-2.4
Rape <sup>1</sup> .....	3,110	3,921	5,304	5,585	5,427	5,329	-	-1.8
Robbery.....	15,409	14,938	16,264	16,489	17,324	16,758	8.8	-3.3
Aggravated assault.....	49,470	51,470	53,629	54,783	56,227	56,484	14.2	0.5
Property crimes.....	137,094	134,955	128,653	114,766	103,843	97,984	-28.5	-5.6
Burglary.....	29,979	28,789	21,525	20,151	18,871	18,059	-39.8	-4.3
Motor vehicle theft.....	13,038	12,328	14,296	14,916	15,336	14,631	12.2	-4.6
Total larceny-theft.....	94,077	93,838	92,832	79,699	69,636	65,294	-30.6	-6.2
Arson.....	1,195	1,230	1,306	1,323	1,624	1,682	40.8	3.6
Clearance rate <sup>2</sup>								
Violent crimes.....	45.6	47.2	45.8	44.6	44.9	45.1	-1.1	0.4
Homicide.....	65.7	64.3	61.5	59.1	62.5	64.2	-2.3	2.7
Rape <sup>1</sup> .....	41.7	41.7	41.5	40.8	36.9	34.4	-	-6.8
Robbery.....	28.7	30.7	30.8	30.1	30.6	30.9	7.7	1.0
Aggravated assault.....	55.7	56.1	54.1	52.5	53.4	53.6	-3.8	0.4
Property crimes.....	13.5	14.3	12.6	11.5	10.5	10.4	-23.0	-1.0
Burglary.....	12.9	14.2	10.9	10.7	10.7	11.0	-14.7	2.8
Motor vehicle theft.....	7.9	8.1	8.4	8.4	9.1	9.4	19.0	3.3
Total larceny-theft.....	15.1	15.8	14.2	12.5	10.9	10.5	-30.5	-3.7
Arson.....	16.0	17.2	17.7	17.0	18.8	19.7	23.1	4.8

Note: Dash indicates that a percent change was not calculated due to data definition change.

<sup>1</sup> In 2014, the crime of "forcible rape" was changed to "rape." The definition was expanded to include both male and female victims and reflects the various forms of sexual penetration understood to be rape. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

<sup>2</sup> Percentage of clearances to total crimes reported.

Table 16  
**TOTAL ARRESTS, 1966-2018**  
 Number and Rate per 100,000 Population at Risk

Year(s)	Total			Law violations									Status offenses <sup>1</sup>
				Total			Felony			Misdemeanor			
	Total	Adult	Juvenile	Total	Adult	Juvenile	Total	Adult	Juvenile	Total	Adult	Juvenile	Juvenile
Number													
2018.....	1,091,694	1,045,271	46,423	1,086,759	1,045,271	41,488	302,514	285,249	17,265	784,245	760,022	24,223	4,935
2017.....	1,097,083	1,040,834	56,249	1,090,253	1,040,834	49,419	306,024	286,651	19,373	784,229	754,183	30,046	6,830
2016.....	1,120,759	1,058,016	62,743	1,113,428	1,058,016	55,412	308,860	289,204	19,656	804,568	768,812	35,756	7,331
2015.....	1,158,812	1,086,889	71,923	1,150,118	1,086,889	63,229	314,748	293,367	21,381	835,370	793,522	41,848	8,694
2014 <sup>a</sup> .....	1,212,845	1,126,022	86,823	1,201,964	1,126,022	75,942	439,958	412,307	27,651	762,006	713,715	48,291	10,881
2013.....	1,205,536	1,108,599	96,937	1,193,726	1,108,599	85,127	442,741	411,929	30,812	750,985	696,670	54,315	11,810
2012.....	1,238,496	1,117,776	120,720	1,222,104	1,117,776	104,328	429,807	393,439	36,368	792,297	724,337	67,960	16,392
2011.....	1,267,196	1,117,633	149,563	1,245,369	1,117,633	127,736	419,914	376,511	43,403	825,455	741,122	84,333	21,827
2010.....	1,394,425	1,208,558	185,867	1,366,831	1,208,558	158,273	448,552	396,532	52,020	918,279	812,026	106,253	27,594
2009.....	1,466,852	1,262,156	204,696	1,436,662	1,262,156	174,506	466,441	407,886	58,555	970,221	854,270	115,951	30,190
2008.....	1,543,665	1,314,561	229,104	1,509,666	1,314,561	195,105	499,628	434,665	64,963	1,010,038	879,896	130,142	33,999
2007.....	1,551,900	1,315,044	236,856	1,515,864	1,315,044	200,820	523,276	457,085	66,191	992,588	857,959	134,629	36,036
2006.....	1,539,364	1,306,515	232,849	1,502,868	1,306,515	196,353	534,460	469,271	65,189	968,408	837,244	131,164	36,496
2005.....	1,508,210	1,289,431	218,779	1,477,212	1,289,431	187,781	538,166	477,005	61,161	939,046	812,426	126,620	30,998
2004.....	1,499,083	1,280,937	218,146	1,468,343	1,280,937	187,406	522,781	462,910	59,871	945,562	818,027	127,535	30,740
2003.....	1,471,083	1,247,763	223,320	1,438,863	1,247,763	191,100	507,081	446,203	60,878	931,782	801,560	130,222	32,220
2002.....	1,426,233	1,196,599	229,634	1,390,613	1,196,599	194,014	487,364	425,825	61,539	903,249	770,774	132,475	35,620
2001.....	1,420,680	1,180,194	240,486	1,380,667	1,180,194	200,473	472,677	408,684	63,993	907,990	771,510	136,480	40,013
2000.....	1,424,893	1,181,803	243,090	1,385,361	1,181,803	203,558	459,632	395,743	63,889	925,729	786,060	139,669	39,532
1999.....	1,496,459	1,238,334	258,125	1,453,720	1,238,334	215,386	467,936	399,433	68,503	985,784	838,901	146,883	42,739
1998.....	1,571,724	1,301,765	269,959	1,531,917	1,301,765	230,152	508,257	432,153	76,104	1,023,660	869,612	154,048	39,807
1997.....	1,620,381	1,343,861	276,520	1,580,746	1,343,861	236,885	547,550	464,802	82,748	1,033,196	879,059	154,137	39,635
1996.....	1,622,535	1,348,340	274,195	1,585,442	1,348,340	237,102	533,989	448,349	85,640	1,051,453	899,991	151,462	37,093
1995 <sup>b</sup> .....	1,656,379	1,394,732	261,647	1,624,207	1,394,732	229,475	570,803	482,887	87,916	1,053,404	911,845	141,559	32,172
1994.....	1,652,723	1,394,894	257,829	1,624,789	1,394,894	229,895	581,264	489,265	91,999	1,043,525	905,629	137,896	27,934
1993.....	1,667,522	1,412,431	255,091	1,643,443	1,412,431	231,012	564,307	472,334	91,973	1,079,136	940,097	139,039	24,079
1992.....	1,718,254	1,471,058	247,196	1,695,153	1,471,058	224,095	564,416	470,932	93,484	1,130,737	1,000,126	130,611	23,101
1991.....	1,791,312	1,546,002	245,310	1,767,750	1,546,002	221,748	541,346	447,681	93,665	1,226,404	1,098,321	128,083	23,562
1990.....	1,979,355	1,736,828	242,527	1,955,744	1,736,828	218,916	577,268	485,895	91,373	1,378,476	1,250,933	127,543	23,611
1989.....	1,969,168	1,730,927	238,241	1,946,265	1,730,927	215,338	590,285	501,259	89,026	1,355,980	1,229,668	126,312	22,903
1988.....	1,903,067	1,673,864	229,203	1,879,183	1,673,864	205,319	550,446	469,688	80,758	1,328,737	1,204,176	124,561	23,884
1987.....	1,859,342	1,635,731	223,611	1,834,012	1,635,731	198,281	496,246	422,663	73,583	1,337,766	1,213,068	124,698	25,330
1986.....	1,794,481	1,558,601	235,880	1,769,204	1,558,601	210,603	469,982	393,790	76,192	1,299,222	1,164,811	134,411	25,277
1985.....	1,716,040	1,485,079	230,961	1,690,267	1,485,079	205,188	413,673	340,152	73,521	1,276,594	1,144,927	131,667	25,773
1984.....	1,680,721	1,458,674	222,047	1,653,997	1,458,674	195,323	384,861	315,872	68,989	1,269,136	1,142,802	126,334	26,724
1983.....	1,653,914	1,435,788	218,126	1,631,397	1,435,788	195,609	373,609	302,421	71,188	1,257,788	1,133,367	124,421	22,517
1982.....	1,621,944	1,378,695	243,249	1,597,903	1,378,695	219,208	386,995	302,559	84,436	1,210,908	1,076,136	134,772	24,041
1981.....	1,632,351	1,366,481	265,870	1,604,898	1,366,481	238,417	386,195	293,168	93,027	1,218,703	1,073,313	145,390	27,453
1980.....	1,542,850	1,260,324	282,526	1,512,454	1,260,324	252,130	372,190	274,814	97,376	1,140,264	985,510	154,754	30,396
1979.....	1,442,037	1,147,485	294,552	1,411,235	1,147,485	263,750	357,632	256,467	101,165	1,053,603	891,018	162,585	30,802
1978.....	1,382,805	1,098,602	284,203	1,351,539	1,098,602	252,937	334,647	233,957	100,690	1,016,892	864,645	152,247	31,266
1977.....	1,402,930	1,091,287	311,643	1,360,991	1,091,287	269,704	327,215	224,961	102,254	1,033,776	866,326	167,450	41,939
1976.....	1,395,447	1,043,153	352,294	1,314,685	1,043,153	271,532	327,535	224,532	103,003	987,150	818,621	168,529	80,762
1975.....	1,439,857	1,068,907	370,950	1,353,720	1,068,907	284,813	393,658	265,816	127,842	960,062	803,091	156,971	86,137
1974.....	1,488,102	1,079,971	408,131	1,380,204	1,079,971	300,233	402,421	267,904	134,517	977,783	812,067	165,716	107,898
1973.....	1,383,234	1,020,617	362,617	1,280,177	1,020,617	259,560	358,024	239,395	118,629	922,153	781,222	140,931	103,057
1972.....	1,340,438	987,206	353,232	1,154,325	987,206	167,119	343,578	240,231	103,347	810,747	746,975	63,772	186,113
1971.....	1,347,479	968,025	379,454	1,139,121	968,025	171,096	332,693	229,476	103,217	806,428	738,549	67,879	208,358
1970.....	1,340,072	957,137	382,935	1,123,750	957,137	166,613	315,232	214,836	100,396	808,518	742,301	66,217	216,322
1969.....	1,299,951	905,834	394,117	1,070,157	905,834	164,323	299,574	198,529	101,045	770,583	707,305	63,278	229,794
1968.....	1,188,905	822,454	366,451	975,102	822,454	152,648	258,462	168,511	89,951	716,640	653,943	62,697	213,803
1967.....	1,118,261	794,834	323,427	920,248	794,834	125,414	203,233	138,488	64,745	717,015	656,346	60,669	198,013
1966.....	1,047,056	744,036	303,020	856,191	744,036	112,155	166,245	114,283	51,962	689,946	629,753	60,193	190,865

(continued)



Table 16 - continued  
**TOTAL ARRESTS, 1966-2018**  
 Number and Rate per 100,000 Population at Risk

Year(s)	Total			Law violations									Status offenses <sup>1</sup>
				Total			Felony			Misdemeanor			
	Total	Adult	Juvenile	Total	Adult	Juvenile	Total	Adult	Juvenile	Total	Adult	Juvenile	Juvenile
Rate per 100,000 population at risk <sup>2,3</sup>													
2018.....	3,527.5	3,912.2	1,097.5	3,511.6	3,912.2	980.9	977.5	1,067.6	408.2	2,534.1	2,844.6	572.7	116.7
2017.....	3,565.2	3,917.9	1,337.4	3,543.0	3,917.9	1,175.0	994.5	1,079.0	460.6	2,548.5	2,838.9	714.4	162.4
2016.....	3,655.1	3,994.5	1,502.5	3,631.2	3,994.5	1,326.9	1,007.3	1,091.9	470.7	2,623.9	2,902.6	856.2	175.6
2015.....	3,808.6	4,121.8	1,772.7	3,780.0	4,121.8	1,558.4	1,034.5	1,112.5	527.0	2,745.6	3,009.3	1,031.4	214.3
2014 <sup>a</sup> .....	4,017.3	4,309.3	2,138.3	3,981.3	4,309.3	1,870.3	1,457.3	1,577.9	681.0	2,524.0	2,731.4	1,189.3	268.0
2013.....	4,028.7	4,292.6	2,365.6	3,989.2	4,292.6	2,077.4	1,479.6	1,595.0	751.9	2,509.7	2,697.6	1,325.5	288.2
2012.....	4,165.1	4,367.5	2,914.5	4,109.9	4,367.5	2,518.7	1,445.4	1,537.3	878.0	2,664.5	2,830.2	1,640.7	395.7
2011.....	4,287.4	4,408.3	3,558.2	4,213.6	4,408.3	3,039.0	1,420.7	1,485.1	1,032.6	2,792.8	2,923.2	2,006.4	519.3
2010.....	4,737.7	4,802.2	4,357.4	4,644.0	4,802.2	3,710.5	1,524.0	1,575.6	1,219.6	3,120.0	3,226.6	2,491.0	646.9
2009.....	5,042.1	5,079.9	4,820.9	4,938.3	5,079.9	4,109.9	1,603.3	1,641.7	1,379.1	3,335.0	3,438.3	2,730.8	711.0
2008.....	5,347.0	5,369.2	5,222.9	5,229.2	5,369.2	4,447.8	1,730.6	1,775.4	1,481.0	3,498.6	3,593.9	2,966.9	775.1
2007.....	5,426.7	5,435.5	5,378.4	5,300.7	5,435.5	4,560.1	1,829.8	1,889.3	1,503.0	3,470.9	3,546.2	3,057.1	818.3
2006.....	5,436.1	5,463.0	5,290.4	5,307.2	5,463.0	4,461.2	1,887.4	1,962.2	1,481.1	3,419.8	3,500.8	2,980.1	829.2
2005.....	5,373.7	5,445.5	4,986.4	5,263.3	5,445.5	4,279.9	1,917.5	2,014.5	1,394.0	3,345.8	3,431.0	2,885.9	706.5
2004.....	5,385.5	5,459.7	4,987.6	5,275.1	5,459.7	4,284.8	1,878.1	1,973.0	1,368.9	3,397.0	3,486.6	2,915.9	702.8
2003.....	5,350.1	5,387.1	5,152.4	5,232.9	5,387.1	4,409.0	1,844.2	1,926.4	1,404.6	3,388.7	3,460.6	3,004.4	743.4
2002.....	5,264.5	5,242.1	5,384.2	5,133.0	5,242.1	4,549.0	1,798.9	1,865.5	1,442.9	3,334.0	3,376.6	3,106.1	835.2
2001.....	5,319.5	5,239.7	5,749.0	5,169.7	5,239.7	4,792.4	1,769.9	1,814.4	1,529.8	3,399.8	3,425.3	3,262.6	956.5
2000.....	5,427.6	5,329.2	5,962.6	5,277.0	5,329.2	4,992.9	1,750.8	1,784.6	1,567.1	3,526.2	3,544.7	3,425.9	969.7
1999.....	5,820.1	5,666.1	6,692.9	5,653.9	5,666.1	5,584.7	1,819.9	1,827.6	1,776.2	3,834.0	3,838.5	3,808.5	1,108.2
1998.....	6,221.4	6,055.2	7,170.4	6,063.9	6,055.2	6,113.1	2,011.9	2,010.2	2,021.4	4,052.0	4,045.1	4,091.7	1,057.3
1997.....	6,290.2	6,126.6	7,228.4	6,136.3	6,126.6	6,192.3	2,125.6	2,119.0	2,163.1	4,010.8	4,007.6	4,029.2	1,036.1
1996.....	6,349.4	6,177.8	7,354.0	6,204.2	6,177.8	6,359.2	2,089.6	2,054.2	2,296.9	4,114.6	4,123.5	4,062.3	994.8
1995 <sup>b</sup> .....	6,593.1	6,485.4	7,233.9	6,465.1	6,485.4	6,344.4	2,272.1	2,245.4	2,430.7	4,193.0	4,240.0	3,913.8	889.5
1994.....	6,690.3	6,581.7	7,346.0	6,577.2	6,581.7	6,550.1	2,353.0	2,308.6	2,621.2	4,224.2	4,273.1	3,928.9	795.9
1993.....	6,852.5	6,750.4	7,478.7	6,753.5	6,750.4	6,772.8	2,319.0	2,257.4	2,696.4	4,434.6	4,493.0	4,076.3	705.9
1992.....	7,166.7	7,119.9	7,458.1	7,070.3	7,119.9	6,761.1	2,354.1	2,279.3	2,820.5	4,716.2	4,840.6	3,940.6	697.0
1991.....	7,595.1	7,594.5	7,599.0	7,495.2	7,594.5	6,869.1	2,295.3	2,199.2	2,901.5	5,199.9	5,395.3	3,967.6	729.9
1990.....	8,539.4	8,672.2	7,696.0	8,437.6	8,672.2	6,946.8	2,490.5	2,426.1	2,899.5	5,947.1	6,246.0	4,047.3	749.2
1989.....	8,742.4	8,898.6	7,753.7	8,640.7	8,898.6	7,008.3	2,620.6	2,576.9	2,897.4	6,020.1	6,321.6	4,110.9	745.4
1988.....	8,662.1	8,863.3	7,430.5	8,553.4	8,863.3	6,656.3	2,505.4	2,487.0	2,618.1	6,048.0	6,376.2	4,038.2	774.3
1987.....	8,654.7	8,900.1	7,202.1	8,536.8	8,900.1	6,386.3	2,309.9	2,299.7	2,370.0	6,226.9	6,600.4	4,016.3	815.8
1986.....	8,541.3	8,705.7	7,593.7	8,421.0	8,705.7	6,780.0	2,237.0	2,199.6	2,452.9	6,184.0	6,506.2	4,327.1	813.7
1985.....	8,345.2	8,501.3	7,463.9	8,219.8	8,501.3	6,631.0	2,011.7	1,947.2	2,376.0	6,208.1	6,554.1	4,255.0	832.9
1984.....	8,333.6	8,538.5	7,198.9	8,201.1	8,538.5	6,332.5	1,908.3	1,849.0	2,236.7	6,292.8	6,689.5	4,095.8	866.4
1983.....	8,327.6	8,565.2	7,041.7	8,214.2	8,565.2	6,314.8	1,881.1	1,804.1	2,298.1	6,333.0	6,761.1	4,016.6	726.9
1982.....	8,313.0	8,398.7	7,858.5	8,189.8	8,398.7	7,081.8	1,983.5	1,843.1	2,727.8	6,206.3	6,555.6	4,354.0	776.7
1981.....	8,513.9	8,496.8	8,602.9	8,370.7	8,496.8	7,714.6	2,014.3	1,822.9	3,010.1	6,356.4	6,673.9	4,704.5	888.3
1980.....	8,196.1	7,987.4	9,277.8	8,034.6	7,987.4	8,279.6	1,977.2	1,741.6	3,197.7	6,057.4	6,245.7	5,081.9	998.2
1979.....	7,849.2	7,488.5	9,662.8	7,681.6	7,488.5	8,652.3	1,946.6	1,673.7	3,318.7	5,734.9	5,814.8	5,333.6	1,010.5
1978.....	7,676.7	7,365.2	9,177.1	7,503.2	7,365.2	8,167.5	1,857.8	1,568.5	3,251.3	5,645.4	5,796.7	4,916.2	1,009.6
1977.....	7,962.4	7,541.4	9,897.3	7,724.4	7,541.4	8,565.4	1,857.1	1,554.6	3,247.4	5,867.2	5,986.8	5,317.9	1,331.9
1976.....	8,080.2	7,408.3	11,047.1	7,612.6	7,408.3	8,514.6	1,896.6	1,594.6	3,229.9	5,716.0	5,813.7	5,284.7	2,532.5
1975.....	8,512.5	7,805.2	11,521.0	8,003.3	7,805.2	8,845.8	2,327.3	1,941.0	3,970.5	5,676.0	5,864.2	4,875.2	2,675.3
1974.....	8,984.1	8,095.8	12,660.1	8,332.7	8,095.8	9,313.1	2,429.5	2,008.3	4,172.7	5,903.2	6,087.5	5,140.4	3,347.0
1973.....	8,519.0	7,832.2	11,310.5	7,884.3	7,832.2	8,096.0	2,205.0	1,837.1	3,700.2	5,679.3	5,995.1	4,395.8	3,214.5
1972.....	8,416.5	7,737.4	11,152.0	7,247.9	7,737.4	5,276.2	2,157.3	1,882.9	3,262.8	5,090.6	5,854.6	2,013.4	5,875.8
1971.....	8,606.1	7,717.8	12,183.7	7,275.4	7,717.8	5,493.6	2,124.9	1,829.5	3,314.1	5,150.5	5,888.2	2,179.5	6,690.1
1970.....	8,714.0	7,756.6	12,601.8	7,307.4	7,756.6	5,483.0	2,049.8	1,741.0	3,303.9	5,257.5	6,015.6	2,179.1	7,118.8
1969.....	8,844.9	7,770.3	12,966.1	7,281.4	7,770.3	5,406.1	2,038.3	1,703.0	3,324.3	5,243.1	6,067.3	2,081.8	7,560.0
1968.....	8,268.1	7,212.2	12,314.8	6,781.2	7,212.2	5,129.8	1,797.4	1,477.7	3,022.9	4,983.8	5,734.5	2,107.0	7,185.0
1967.....	7,950.3	7,122.3	11,130.0	6,542.5	7,122.3	4,315.8	1,444.9	1,241.0	2,228.1	5,097.6	5,881.3	2,087.8	6,814.2
1966.....	7,644.6	6,843.3	10,729.4	6,251.1	6,843.3	3,971.2	1,213.8	1,051.1	1,839.9	5,037.3	5,792.2	2,131.3	6,758.2

Notes: Statewide arrest data from 1952 through 1965 can be found in Table 16 of *Crime in California*, 2006.

Since 1966 there have been many changes in laws, data collection procedures, etc.; therefore, caution should be used when comparing data for the 1966 through 2018 period.

Juvenile misdemeanor arrest data for 1973 through 2017 are not comparable to prior years because of changes in reporting criteria.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.

<sup>b</sup> Includes estimated annual data for the Bakersfield Police Department and the Oakland Police Department. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

<sup>1</sup> Status offenses include truancy, incorrigibility, running away, and curfew violations. These offenses can only be committed or engaged in by a juvenile.

<sup>2</sup> Rates are based on annual population estimates provided by the Demographic Research Unit, California Department of Finance (see Table 52).

<sup>3</sup> Rates are based on the population at risk for each year. The categories are total (10-69 years of age), adult (18-69 years of age), and juvenile (10-17 years of age) (see Table 52).

Table 17  
**TOTAL ARRESTS, 2013-2018**  
Number, Rate per 100,000 Population, and Percent Change

Year(s)	Total			Law violations						Status offenses <sup>1</sup>	
	Total			Total			Felony			Misdemeanor	
	Total	Adult	Juvenile	Total	Adult	Juvenile	Total	Adult	Juvenile	Total	Juvenile
2018.....	1,091,694	1,045,271	46,423	1,086,759	1,045,271	41,488	302,514	285,249	17,265	784,245	24,223
2017.....	1,097,083	1,040,834	56,249	1,090,253	1,040,834	49,419	306,024	286,651	19,373	784,229	30,046
2016.....	1,120,759	1,058,016	62,743	1,113,428	1,058,016	55,412	308,860	289,204	19,656	804,568	35,756
2015.....	1,158,812	1,086,889	71,923	1,150,118	1,086,889	63,229	314,748	293,367	21,381	835,370	41,848
2014 <sup>a</sup> .....	1,212,845	1,126,022	86,823	1,201,964	1,126,022	75,942	439,958	412,307	27,651	762,006	48,291
2013.....	1,205,536	1,108,599	96,937	1,193,726	1,108,599	85,127	442,741	411,929	30,812	750,985	54,315
Percent change in number											
2017 to 2018.....	-0.5	0.4	-17.5	-0.3	0.4	-16.0	-1.1	-0.5	-10.9	0.0	-19.4
2016 to 2017.....	-2.1	-1.6	-10.4	-2.1	-1.6	-10.8	-0.9	-0.9	-1.4	-2.5	-16.0
2015 to 2016.....	-3.3	-2.7	-12.8	-3.2	-2.7	-12.4	-1.9	-1.4	-8.1	-3.7	-14.6
2014 to 2015.....	-4.5	-3.5	-17.2	-4.3	-3.5	-16.7	-28.5	-28.8	-22.7	9.6	-13.3
2013 to 2014.....	0.6	1.6	-10.4	0.7	1.6	-10.8	-0.6	0.1	-10.3	1.5	-11.1
2013 to 2018.....	-9.4	-5.7	-52.1	-9.0	-5.7	-51.3	-31.7	-30.8	-44.0	4.4	-55.4
Rate per 100,000 total population <sup>2</sup>											
2018.....	2,741.2	2,624.6	116.6	2,728.8	2,624.6	104.2	759.6	716.3	43.4	1,969.2	60.8
2017.....	2,769.5	2,627.5	142.0	2,752.3	2,627.5	124.8	772.5	723.6	48.9	1,979.7	75.8
2016.....	2,847.9	2,688.4	159.4	2,829.2	2,688.4	140.8	784.8	734.9	49.9	2,044.4	90.9
2015.....	2,965.9	2,781.8	184.1	2,943.6	2,781.8	161.8	805.6	750.8	54.7	2,138.1	107.1
2014.....	3,150.3	2,924.8	225.5	3,122.0	2,924.8	197.3	1,142.8	1,070.9	71.8	1,979.3	125.4
2013.....	3,155.5	2,901.7	253.7	3,124.6	2,901.7	222.8	1,158.9	1,078.2	80.6	1,965.7	142.2
Rate per 100,000 population at risk <sup>2,3</sup>											
2018.....	3,527.5	3,912.2	1,097.5	3,511.6	3,912.2	980.9	977.5	1,067.6	408.2	2,534.1	572.7
2017.....	3,565.2	3,917.9	1,337.4	3,543.0	3,917.9	1,175.0	994.5	1,079.0	460.6	2,548.5	714.4
2016.....	3,655.1	3,994.5	1,502.5	3,631.2	3,994.5	1,326.9	1,007.3	1,091.9	470.7	2,623.9	856.2
2015.....	3,808.6	4,121.8	1,772.7	3,780.0	4,121.8	1,558.4	1,034.5	1,112.5	527.0	2,745.6	1,031.4
2014.....	4,017.3	4,309.3	2,138.3	3,981.3	4,309.3	1,870.3	1,457.3	1,577.9	681.0	2,524.0	1,189.3
2013.....	4,028.7	4,292.6	2,365.6	3,989.2	4,292.6	2,077.4	1,479.6	1,595.0	751.9	2,509.7	1,325.5
Percent change in rate per 100,000 population at risk											
2017 to 2018.....	-1.1	-0.1	-17.9	-0.9	-0.1	-16.5	-1.7	-1.1	-11.4	-0.6	-19.8
2016 to 2017.....	-2.5	-1.9	-11.0	-2.4	-1.9	-11.4	-1.3	-1.2	-2.1	-2.9	-16.6
2015 to 2016.....	-4.0	-3.1	-15.2	-3.9	-3.1	-14.9	-2.6	-1.9	-10.7	-4.4	-17.0
2014 to 2015.....	-5.2	-4.4	-17.1	-5.1	-4.4	-16.7	-29.0	-29.5	-22.6	8.8	-13.3
2013 to 2014.....	-0.3	0.4	-9.6	-0.2	0.4	-10.0	-1.5	-1.1	-9.4	0.6	-10.3
2013 to 2018.....	-12.4	-8.9	-53.6	-12.0	-8.9	-52.8	-33.9	-33.1	-45.7	1.0	-56.8

Note: Rates calculated from the total population may not add to subtotals or total because of rounding.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.

<sup>1</sup> Status offenses include truancy, incorrigibility, running away, and curfew violations. These offenses can only be committed or engaged in by a juvenile.

<sup>2</sup> Rates are based on annual population estimates provided by the Demographic Research Unit, California Department of Finance (see Table 52).

<sup>3</sup> Rates are based on the population at risk for each year. The categories are total (10-69 years of age), adult (18-69 years of age), and juvenile (10-17 years of age) (see Table 52).

Table 18  
**TOTAL ARRESTS, 2013-2018**  
By Level of Offense for Adult and Juvenile Arrests

Level of offense	2013		2014 <sup>a</sup>		2015		2016		2017		2018	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Total</b> .....	1,205,536	100.0	1,212,845	100.0	1,158,812	100.0	1,120,759	100.0	1,097,083	100.0	1,091,694	100.0
Total												
Level of offense												
<b>Felony</b> .....	442,741	36.7	439,958	36.3	314,748	27.2	308,860	27.6	306,024	27.9	302,514	27.7
<b>Misdemeanor</b> .....	750,985	62.3	762,006	62.8	835,370	72.1	804,568	71.8	784,229	71.5	784,245	71.8
<b>Status offenses<sup>1</sup></b> .....	11,810	1.0	10,881	0.9	8,694	0.8	7,331	0.7	6,830	0.6	4,935	0.5
Level of offense for adult and juvenile arrests												
<b>Adult</b> .....	1,108,599	92.0	1,126,022	92.8	1,086,889	93.8	1,058,016	94.4	1,040,834	94.9	1,045,271	95.7
<b>Felony</b> .....	411,929	34.2	412,307	34.0	293,367	25.3	289,204	25.8	286,651	26.1	285,249	26.1
<b>Misdemeanor</b> .....	696,670	57.8	713,715	58.8	793,522	68.5	768,812	68.6	754,183	68.7	760,022	69.6
<b>Juvenile</b> .....	96,937	8.0	86,823	7.2	71,923	6.2	62,743	5.6	56,249	5.1	46,423	4.3
<b>Felony</b> .....	30,812	2.6	27,651	2.3	21,381	1.8	19,656	1.8	19,373	1.8	17,265	1.6
<b>Misdemeanor</b> .....	54,315	4.5	48,291	4.0	41,848	3.6	35,756	3.2	30,046	2.7	24,223	2.2
<b>Status offenses</b> .....	11,810	1.0	10,881	0.9	8,694	0.8	7,331	0.7	6,830	0.6	4,935	0.5

Note: Percentages may not add to subtotals or 100.0 because of rounding.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.

<sup>1</sup> Status offenses include truancy, incorrigibility, running away, and curfew violations. These offenses can only be committed or engaged in by a juvenile.

Table 19  
**FELONY ARRESTS, 2013-2018**  
By Category

Category	2013		2014 <sup>a</sup>		2015		2016		2017		2018	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Total</b> .....	442,741	100.0	439,958	100.0	314,748	100.0	308,860	100.0	306,024	100.0	302,514	100.0
<b>Violent offenses</b> .....	103,123	23.3	107,791	24.5	109,756	34.9	108,977	35.3	111,478	36.4	112,461	37.2
<b>Property offenses</b> .....	106,995	24.2	97,806	22.2	73,970	23.5	75,506	24.4	77,223	25.2	72,962	24.1
<b>Drug offenses<sup>1</sup></b> .....	137,125	31.0	137,054	31.2	44,629	14.2	38,988	12.6	29,955	9.8	28,376	9.4
<b>All other</b> .....	95,498	21.6	97,307	22.1	86,393	27.4	85,389	27.6	87,368	28.5	88,715	29.3

Note: Percentages may not add to 100.0 because of rounding.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.

<sup>1</sup> In November 2016, California voters passed Proposition 64 which legalized the possession and use of marijuana for individuals 21 years of age and older and reduced the offense degree for numerous state statutes. Caution should be used when comparing drug offense arrests to prior years.

Table 20  
**FELONY ARRESTS, 2013-2018**  
 By Category and Offense

Category and offense	2013		2014 <sup>a</sup>		2015		2016		2017		2018	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	442,741		439,958		314,748		308,860		306,024		302,514	
Violent offenses.....	103,123	100.0	107,791	100.0	109,756	100.0	108,977	100.0	111,478	100.0	112,461	100.0
Homicide.....	1,423	1.4	1,427	1.3	1,439	1.3	1,440	1.3	1,501	1.3	1,416	1.3
Rape <sup>1</sup> .....	1,601	1.6	2,444	2.3	2,467	2.2	2,558	2.3	2,557	2.3	2,541	2.3
Robbery.....	15,934	15.5	14,799	13.7	15,903	14.5	15,892	14.6	17,000	15.2	16,713	14.9
Assault.....	82,700	80.2	87,735	81.4	88,348	80.5	87,415	80.2	88,693	79.6	90,089	80.1
Kidnapping.....	1,465	1.4	1,386	1.3	1,599	1.5	1,672	1.5	1,727	1.5	1,702	1.5
Property offenses.....	106,995	100.0	97,806	100.0	73,970	100.0	75,506	100.0	77,223	100.0	72,962	100.0
Burglary.....	49,694	46.4	45,112	46.1	24,101	32.6	23,209	30.7	22,551	29.2	20,887	28.6
Theft.....	36,339	34.0	32,308	33.0	26,533	35.9	27,643	36.6	29,507	38.2	28,964	39.7
Motor vehicle theft.....	13,750	12.9	13,629	13.9	17,234	23.3	18,344	24.3	19,216	24.9	17,714	24.3
Forgery, checks, access cards.....	6,261	5.9	5,860	6.0	5,068	6.9	5,166	6.8	4,566	5.9	4,031	5.5
Arson.....	951	0.9	897	0.9	1,034	1.4	1,144	1.5	1,383	1.8	1,366	1.9
Drug offenses.....	137,125	100.0	137,054	100.0	44,629	100.0	38,988	100.0	29,955	100.0	28,376	100.0
Narcotics.....	37,133	27.1	36,476	26.6	11,596	26.0	10,228	26.2	9,605	32.1	9,061	31.9
Marijuana <sup>2</sup> .....	13,779	10.0	13,300	9.7	8,866	19.9	7,949	20.4	2,086	7.0	1,617	5.7
Dangerous drugs.....	85,035	62.0	85,931	62.7	22,712	50.9	19,518	50.1	17,107	57.1	16,457	58.0
Other.....	1,178	0.9	1,347	1.0	1,455	3.3	1,293	3.3	1,157	3.9	1,241	4.4
All other.....	95,498	100.0	97,307	100.0	86,393	100.0	85,389	100.0	87,368	100.0	88,715	100.0

Note: Percentages may not add to 100.0 because of rounding.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.

<sup>1</sup> In 2014, the crime of "forcible rape" was changed to "rape." The definition was expanded to include both male and female victims and reflects the various forms of sexual penetration understood to be rape. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

<sup>2</sup> In November 2016, California voters passed Proposition 64 which legalized the possession and use of marijuana for individuals 21 years of age and older and reduced the offense degree for numerous state statutes. Caution should be used when comparing drug offense arrests to prior years.

Table 21  
**FELONY ARRESTS, 2013-2018**  
By Category and Offense for Adult and Juvenile Arrests

Category and offense	2013		2014 <sup>a</sup>		2015		2016		2017		2018	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total												
Total.....	442,741	100.0	439,958	100.0	314,748	100.0	308,860	100.0	306,024	100.0	302,514	100.0
Adult and juvenile arrests												
Adult.....	411,929	93.0	412,307	93.7	293,367	93.2	289,204	93.6	286,651	93.7	285,249	94.3
Juvenile.....	30,812	7.0	27,651	6.3	21,381	6.8	19,656	6.4	19,373	6.3	17,265	5.7
Category and offense for adult and juvenile arrests												
Violent offenses.....	103,123	100.0	107,791	100.0	109,756	100.0	108,977	100.0	111,478	100.0	112,461	100.0
Adult.....	94,820	91.9	99,767	92.6	102,415	93.3	101,849	93.5	104,187	93.5	105,141	93.5
Juvenile.....	8,303	8.1	8,024	7.4	7,341	6.7	7,128	6.5	7,291	6.5	7,320	6.5
Homicide.....	1,423	100.0	1,427	100.0	1,439	100.0	1,440	100.0	1,501	100.0	1,416	100.0
Adult.....	1,318	92.6	1,332	93.3	1,351	93.9	1,349	93.7	1,403	93.5	1,332	94.1
Juvenile.....	105	7.4	95	6.7	88	6.1	91	6.3	98	6.5	84	5.9
Rape <sup>1</sup> .....	1,601	100.0	2,444	100.0	2,467	100.0	2,558	100.0	2,557	100.0	2,541	100.0
Adult.....	1,484	92.7	2,169	88.7	2,217	89.9	2,285	89.3	2,267	88.7	2,296	90.4
Juvenile.....	117	7.3	275	11.3	250	10.1	273	10.7	290	11.3	245	9.6
Robbery.....	15,934	100.0	14,799	100.0	15,903	100.0	15,892	100.0	17,000	100.0	16,713	100.0
Adult.....	12,828	80.5	12,062	81.5	13,306	83.7	13,288	83.6	14,037	82.6	13,763	82.3
Juvenile.....	3,106	19.5	2,737	18.5	2,597	16.3	2,604	16.4	2,963	17.4	2,950	17.7
Assault.....	82,700	100.0	87,735	100.0	88,348	100.0	87,415	100.0	88,693	100.0	90,089	100.0
Adult.....	77,794	94.1	82,885	94.5	84,019	95.1	83,338	95.3	84,835	95.7	86,116	95.6
Juvenile.....	4,906	5.9	4,850	5.5	4,329	4.9	4,077	4.7	3,858	4.3	3,973	4.4
Kidnapping.....	1,465	100.0	1,386	100.0	1,599	100.0	1,672	100.0	1,727	100.0	1,702	100.0
Adult.....	1,396	95.3	1,319	95.2	1,522	95.2	1,589	95.0	1,645	95.3	1,634	96.0
Juvenile.....	69	4.7	67	4.8	77	4.8	83	5.0	82	4.7	68	4.0

(continued)

Table 21 - continued  
**FELONY ARRESTS, 2013-2018**  
 By Category and Offense for Adult and Juvenile Arrests

Category and offense	2013		2014 <sup>a</sup>		2015		2016		2017		2018	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Property offenses.....	106,995	100.0	97,806	100.0	73,970	100.0	75,506	100.0	77,223	100.0	72,962	100.0
Adult.....	95,201	89.0	87,672	89.6	67,285	91.0	69,640	92.2	70,987	91.9	68,162	93.4
Juvenile.....	11,794	11.0	10,134	10.4	6,685	9.0	5,866	7.8	6,236	8.1	4,800	6.6
Burglary.....	49,694	100.0	45,112	100.0	24,101	100.0	23,209	100.0	22,551	100.0	20,887	100.0
Adult.....	42,289	85.1	38,592	85.5	20,595	85.5	20,408	87.9	19,880	88.2	18,941	90.7
Juvenile.....	7,405	14.9	6,520	14.5	3,506	14.5	2,801	12.1	2,671	11.8	1,946	9.3
Theft.....	36,339	100.0	32,308	100.0	26,533	100.0	27,643	100.0	29,507	100.0	28,964	100.0
Adult.....	33,802	93.0	30,346	93.9	25,107	94.6	26,314	95.2	27,919	94.6	27,664	95.5
Juvenile.....	2,537	7.0	1,962	6.1	1,426	5.4	1,329	4.8	1,588	5.4	1,300	4.5
Motor vehicle theft.....	13,750	100.0	13,629	100.0	17,234	100.0	18,344	100.0	19,216	100.0	17,714	100.0
Adult.....	12,287	89.4	12,289	90.2	15,749	91.4	16,884	92.0	17,494	91.0	16,341	92.2
Juvenile.....	1,463	10.6	1,340	9.8	1,485	8.6	1,460	8.0	1,722	9.0	1,373	7.8
Forgery, checks, access cards.....	6,261	100.0	5,860	100.0	5,068	100.0	5,166	100.0	4,566	100.0	4,031	100.0
Adult.....	6,160	98.4	5,766	98.4	4,988	98.4	5,098	98.7	4,511	98.8	3,997	99.2
Juvenile.....	101	1.6	94	1.6	80	1.6	68	1.3	55	1.2	34	0.8
Arson.....	951	100.0	897	100.0	1,034	100.0	1,144	100.0	1,383	100.0	1,366	100.0
Adult.....	663	69.7	679	75.7	846	81.8	936	81.8	1,183	85.5	1,219	89.2
Juvenile.....	288	30.3	218	24.3	188	18.2	208	18.2	200	14.5	147	10.8
Drug offenses.....	137,125	100.0	137,054	100.0	44,629	100.0	38,988	100.0	29,955	100.0	28,376	100.0
Adult.....	133,727	97.5	133,996	97.8	43,096	96.6	37,655	96.6	29,279	97.7	27,889	98.3
Juvenile.....	3,398	2.5	3,058	2.2	1,533	3.4	1,333	3.4	676	2.3	487	1.7
Narcotics.....	37,133	100.0	36,476	100.0	11,596	100.0	10,228	100.0	9,605	100.0	9,061	100.0
Adult.....	36,438	98.1	35,875	98.4	11,317	97.6	9,961	97.4	9,359	97.4	8,887	98.1
Juvenile.....	695	1.9	601	1.6	279	2.4	267	2.6	246	2.6	174	1.9
Marijuana <sup>2</sup> .....	13,779	100.0	13,300	100.0	8,866	100.0	7,949	100.0	2,086	100.0	1,617	100.0
Adult.....	12,223	88.7	11,917	89.6	7,987	90.1	7,254	91.3	1,907	91.4	1,489	92.1
Juvenile.....	1,556	11.3	1,383	10.4	879	9.9	695	8.7	179	8.6	128	7.9
Dangerous drugs.....	85,035	100.0	85,931	100.0	22,712	100.0	19,518	100.0	17,107	100.0	16,457	100.0
Adult.....	83,909	98.7	84,882	98.8	22,361	98.5	19,153	98.1	16,867	98.6	16,277	98.9
Juvenile.....	1,126	1.3	1,049	1.2	351	1.5	365	1.9	240	1.4	180	1.1
Other.....	1,178	100.0	1,347	100.0	1,455	100.0	1,293	100.0	1,157	100.0	1,241	100.0
Adult.....	1,157	98.2	1,322	98.1	1,431	98.4	1,287	99.5	1,146	99.0	1,236	99.6
Juvenile.....	21	1.8	25	1.9	24	1.6	6	0.5	11	1.0	5	0.4
All other.....	95,498	100.0	97,307	100.0	86,393	100.0	85,389	100.0	87,368	100.0	88,715	100.0
Adult.....	88,181	92.3	90,872	93.4	80,571	93.3	80,060	93.8	82,198	94.1	84,057	94.7
Juvenile.....	7,317	7.7	6,435	6.6	5,822	6.7	5,329	6.2	5,170	5.9	4,658	5.3

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.

<sup>1</sup> In 2014, the crime of "forcible rape" was changed to "rape." The definition was expanded to include both male and female victims and reflects the various forms of sexual penetration understood to be rape. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

<sup>2</sup> In November 2016, California voters passed Proposition 64 which legalized the possession and use of marijuana for individuals 21 years of age and older and reduced the offense degree for numerous state statutes. Caution should be used when comparing drug offense arrests to prior years.



Year(s)	Total		Violent offenses																		
	Total		Homicide		Rape <sup>1</sup>		Robbery		Assault		Kidnapping										
	Adult	Juve- nile	Total	Adult	Juve- nile	Total	Adult	Juve- nile	Total	Adult	Juve- nile	Total	Adult	Juve- nile							
Number																					
2018.....	302,514	285,249	17,265	112,461	105,141	7,320	1,416	1,332	84	2,541	2,296	245	16,713	13,763	2,950	90,089	86,116	3,973	1,702	1,634	68
2017.....	306,024	286,651	19,373	111,478	104,187	7,291	1,501	1,403	98	2,557	2,267	290	17,000	14,037	2,963	88,693	84,835	3,858	1,727	1,645	82
2016.....	308,860	289,204	19,656	108,977	101,849	7,128	1,440	1,349	91	2,558	2,285	273	15,892	13,288	2,604	87,415	83,338	4,077	1,672	1,589	83
2015.....	314,748	293,367	21,381	109,756	102,415	7,341	1,439	1,351	88	2,467	2,217	250	15,903	13,306	2,597	88,348	84,019	4,329	1,599	1,522	77
2014 <sup>a</sup> .....	439,958	412,307	27,651	107,791	99,767	8,024	1,427	1,332	95	2,444	2,169	275	14,799	12,062	2,737	87,735	82,885	4,850	1,386	1,319	67
2013.....	442,741	411,929	30,812	103,123	94,820	8,303	1,423	1,318	105	1,601	1,484	117	15,934	12,828	3,106	82,700	77,794	4,906	1,465	1,396	69
Percent change in number																					
2017 to 2018.....	-1.1	-0.5	-10.9	0.9	0.9	0.4	-5.7	-5.1	-14.3	-0.6	1.3	-15.5	-1.7	-2.0	-0.4	1.6	1.5	3.0	-1.4	-0.7	-17.1
2016 to 2017.....	-0.9	-0.9	-1.4	2.3	2.3	2.3	4.2	4.0	7.7	0.0	-0.8	6.2	-1.7	5.6	13.8	1.5	1.8	-5.4	3.3	3.5	-1.2
2015 to 2016.....	-1.9	-1.4	-8.1	-0.7	-0.6	-2.9	0.1	-0.1	3.4	3.7	3.1	9.2	-0.1	-0.1	0.3	-1.1	-0.8	-5.8	4.6	4.4	7.8
2014 to 2015.....	-28.5	-28.8	-22.7	1.8	2.7	-8.5	0.8	1.4	-7.4	0.9	2.2	-9.1	7.5	10.3	-5.1	0.7	1.4	-10.7	15.4	15.4	14.9
2013 to 2014.....	-0.6	0.1	-10.3	4.5	5.2	-3.4	0.3	1.1	-9.5	52.7	46.2	135.0	-7.1	-6.0	-11.9	6.1	6.5	-1.1	-5.4	-5.5	-2.9
2013 to 2018.....	-31.7	-30.8	-44.0	9.1	10.9	-11.8	-0.5	1.1	-20.0	58.7	54.7	109.4	4.9	7.3	-5.0	8.9	10.7	-19.0	16.2	17.0	-1.4
Rate per 100,000 population at risk <sup>3</sup>																					
2018.....	977.5	1,067.6	408.2	363.4	393.5	173.1	4.6	5.0	2.0	8.2	8.6	5.8	54.0	51.5	69.7	291.1	322.3	93.9	5.5	6.1	1.6
2017.....	994.5	1,079.0	460.6	362.3	392.2	173.4	4.9	5.3	2.3	8.3	8.5	6.9	55.2	52.8	70.5	288.2	319.3	91.7	5.6	6.2	1.9
2016.....	1,007.3	1,091.9	470.7	355.4	384.5	170.7	4.7	5.1	2.2	8.3	8.6	6.5	51.8	50.2	62.4	285.1	314.6	97.6	5.5	6.0	2.0
2015.....	1,034.5	1,112.5	527.0	360.7	388.4	180.9	4.7	5.1	2.2	8.1	8.4	6.2	52.3	50.5	64.0	290.4	318.6	106.7	5.3	5.8	1.9
2014.....	1,457.3	1,577.9	681.0	357.0	381.8	197.6	4.7	5.1	2.3	8.1	8.3	6.8	49.0	46.2	67.4	290.6	317.2	119.4	4.6	5.0	1.7
2013.....	1,479.6	1,595.0	751.9	344.6	367.2	202.6	4.8	5.1	2.6	5.4	5.7	2.9	53.2	49.7	75.8	276.4	301.2	119.7	4.9	5.4	1.7
Percent change in rate																					
2017 to 2018.....																					

(continued)

Table 22 - continued  
**FELONY ARRESTS, 2013-2018**  
 Number, Rate per 100,000 Population at Risk, and Percent Change

Year(s)	Property offenses														
	Total		Burglary		Theft		Motor vehicle theft			Forgery, checks, access cards		Arson			
	Adult	Juve- nile	Total	Adult	Juve- nile	Total	Adult	Juve- nile	Total	Adult	Juve- nile	Total	Adult	Juve- nile	
Number															
2018.....	72,962	68,162	4,800	20,887	18,941	1,946	28,964	27,664	1,300	17,714	16,341	1,373	4,031	3,997	34
2017.....	77,223	70,987	6,236	22,551	19,880	2,671	29,507	27,919	1,588	19,216	17,494	1,722	4,566	4,511	55
2016.....	75,506	69,640	5,866	23,209	20,408	2,801	27,643	26,314	1,329	18,344	16,884	1,460	5,166	5,098	68
2015.....	73,970	67,285	6,685	24,101	20,595	3,506	26,533	25,107	1,426	17,234	15,749	1,485	5,068	4,988	80
2014 <sup>a</sup> .....	97,806	87,672	10,134	45,112	38,592	6,520	32,308	30,346	1,962	13,629	12,289	1,340	5,860	5,766	94
2013.....	106,995	95,201	11,794	49,694	42,289	7,405	36,339	33,802	2,537	13,750	12,287	1,463	6,261	6,160	101
Percent change in number															
2017 to 2018.....	-5.5	-4.0	-23.0	-7.4	-4.7	-27.1	-1.8	-0.9	-18.1	-7.8	-6.6	-20.3	-11.7	-11.4	-38.2
2016 to 2017.....	2.3	1.9	6.3	-2.8	-2.6	-4.6	6.7	6.1	19.5	4.8	3.6	17.9	-11.6	-11.5	-19.1
2015 to 2016.....	2.1	3.5	-12.3	-3.7	-0.9	-20.1	4.2	4.8	-6.8	6.4	7.2	-1.7	1.9	2.2	-15.0
2014 to 2015.....	-24.4	-23.3	-34.0	-46.6	-46.6	-46.2	-17.9	-17.3	-27.3	26.5	28.2	10.8	-13.5	-13.5	-14.9
2013 to 2014.....	-8.6	-7.9	-14.1	-9.2	-8.7	-12.0	-11.1	-10.2	-22.7	-0.9	0.0	-8.4	-6.4	-6.4	-6.9
2013 to 2018.....	-31.8	-28.4	-59.3	-58.0	-55.2	-73.7	-20.3	-18.2	-48.8	28.8	33.0	-6.2	-35.6	-35.1	-66.3
Rate per 100,000 population at risk <sup>3</sup>															
2018.....	235.8	255.1	113.5	67.5	70.9	46.0	93.6	103.5	30.7	57.2	61.2	32.5	13.0	15.0	0.8
2017.....	251.0	267.2	148.3	73.3	74.8	63.5	95.9	105.1	37.8	62.4	65.9	40.9	14.8	17.0	1.3
2016.....	246.2	262.9	140.5	75.7	77.0	67.1	90.2	99.3	31.8	59.8	63.7	35.0	16.8	19.2	1.6
2015.....	243.1	255.2	164.8	79.2	78.1	86.4	87.2	95.2	35.1	56.6	59.7	36.6	16.7	18.9	2.0
2014.....	324.0	335.5	249.6	149.4	147.7	160.6	107.0	116.1	48.3	45.1	47.0	33.0	19.4	22.1	2.3
2013.....	357.6	368.6	287.8	166.1	163.7	180.7	121.4	130.9	61.9	46.0	47.6	35.7	20.9	23.9	2.5
Percent change in rate															
2017 to 2018.....	-6.1	-4.5	-23.5	-7.9	-5.2	-27.6	-2.4	-1.5	-18.8	-8.3	-7.1	-20.5	-12.2	-11.8	-38.5
2016 to 2017.....	1.9	1.6	5.6	-3.2	-2.9	-5.4	6.3	5.8	18.9	4.3	3.5	16.9	-11.9	-11.5	-18.8
2015 to 2016.....	1.3	3.0	-14.7	-4.4	-1.4	-22.3	3.4	4.3	-9.4	5.7	6.7	-4.4	0.6	1.6	-20.0
2014 to 2015.....	-25.0	-23.9	-34.0	-47.0	-47.1	-46.2	-18.5	-18.0	-27.3	25.5	27.0	10.9	-13.9	-14.5	-13.0
2013 to 2014.....	-9.4	-9.0	-13.3	-10.1	-9.8	-11.1	-11.9	-11.3	-22.0	-2.0	-1.3	-7.6	-7.2	-7.5	-8.0
2013 to 2018.....	-34.1	-30.8	-60.6	-59.4	-56.7	-74.5	-22.9	-20.9	-50.4	24.3	28.6	-9.0	-37.8	-37.2	-68.0
(continued)															

Table 22 - continued

Note: Dash indicates that a percent change is not calculated when the base number is less than 50.

<sup>10</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.

<sup>11</sup> In 2014, the crime of "forcible rape" was changed to "rape". The definition was expanded to include both male and female victims and reflects the various forms of sexual penetration understood to be rape. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

<sup>12</sup> In November 2016, California voters passed Proposition 64 which legalized the possession and use of marijuana for individuals 21 years of age and older and reduced the offense degree for numerous state statutes. Caution should be used when comparing drug offense arrests to prior years.

Rates are based on the population at risk for each year. The categories are total (10-69 years of age), adult (18-69 years of age), and juvenile (10-17 years of age) (see Table 52).

<sup>10</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1. Data Characteristics and Known Limitations and Appendix 3. Arrest Offense Codes.

For additional information, see Appendix 1, Data Characteristics and Known Limitations.

<sup>3</sup> Rates are based on the population at risk for each year. The categories are total (10-69 years of age), adult (18-69 years of age), and juvenile (10-17 years of age) (see Table 52).

Table 23  
**ADULT FELONY ARRESTS, 2013-2018**  
 By Category, Offense, and Law Enforcement Disposition

Category, offense, and law enforcement disposition	2013	2014 <sup>a</sup>	2015	2016	2017	2018		Percent change	
						Number	Percent	2013- 2018	2017- 2018
<b>Total</b>	<b>411,929</b>	<b>412,307</b>	<b>293,367</b>	<b>289,204</b>	<b>286,651</b>	<b>285,249</b>	<b>100.0</b>	<b>-30.8</b>	<b>-0.5</b>
<b>Category and offense</b>									
<b>Violent offenses</b>	<b>94,820</b>	<b>99,767</b>	<b>102,415</b>	<b>101,849</b>	<b>104,187</b>	<b>105,141</b>	<b>36.9</b>	<b>10.9</b>	<b>0.9</b>
Homicide	1,318	1,332	1,351	1,349	1,403	1,332	0.5	1.1	-5.1
Rape <sup>1</sup>	1,484	2,169	2,217	2,285	2,267	2,296	0.8	54.7	1.3
Robbery	12,828	12,062	13,306	13,288	14,037	13,763	4.8	7.3	-2.0
Assault	77,794	82,885	84,019	83,338	84,835	86,116	30.2	10.7	1.5
Kidnapping	1,396	1,319	1,522	1,589	1,645	1,634	0.6	17.0	-0.7
<b>Property offenses</b>	<b>95,201</b>	<b>87,672</b>	<b>67,285</b>	<b>69,640</b>	<b>70,987</b>	<b>68,162</b>	<b>23.9</b>	<b>-28.4</b>	<b>-4.0</b>
Burglary	42,289	38,592	20,595	20,408	19,880	18,941	6.6	-55.2	-4.7
Theft	33,802	30,346	25,107	26,314	27,919	27,664	9.7	-18.2	-0.9
Motor vehicle theft	12,287	12,289	15,749	16,884	17,494	16,341	5.7	33.0	-6.6
Forgery, checks, access cards	6,160	5,766	4,988	5,098	4,511	3,997	1.4	-35.1	-11.4
Arson	663	679	846	936	1,183	1,219	0.4	83.9	3.0
<b>Drug offenses</b>	<b>133,727</b>	<b>133,996</b>	<b>43,096</b>	<b>37,655</b>	<b>29,279</b>	<b>27,889</b>	<b>9.8</b>	<b>-79.1</b>	<b>-4.7</b>
Narcotics	36,438	35,875	11,317	9,961	9,359	8,887	3.1	-75.6	-5.0
Marijuana <sup>2</sup>	12,223	11,917	7,987	7,254	1,907	1,489	0.5	-87.8	-21.9
Dangerous drugs	83,909	84,882	22,361	19,153	16,867	16,277	5.7	-80.6	-3.5
Other	1,157	1,322	1,431	1,287	1,146	1,236	0.4	6.8	7.9
<b>Sex offenses</b>	<b>5,838</b>	<b>5,256</b>	<b>4,927</b>	<b>4,718</b>	<b>4,896</b>	<b>4,667</b>	<b>1.6</b>	<b>-20.1</b>	<b>-4.7</b>
Lewd or lascivious	1,981	2,041	1,934	1,811	1,736	1,609	0.6	-18.8	-7.3
Other <sup>1</sup>	3,857	3,215	2,993	2,907	3,160	3,058	1.1	-20.7	-3.2
<b>All other</b>	<b>82,343</b>	<b>85,616</b>	<b>75,644</b>	<b>75,342</b>	<b>77,302</b>	<b>79,390</b>	<b>27.8</b>	<b>-3.6</b>	<b>2.7</b>
Weapons	17,054	16,664	17,912	19,506	20,561	20,864	7.3	22.3	1.5
Driving under the influence	4,800	4,873	4,898	5,194	4,930	4,906	1.7	2.2	-0.5
Hit-and-run	1,087	1,132	1,111	1,274	1,276	1,207	0.4	11.0	-5.4
Escape	353	233	250	236	235	321	0.1	-9.1	36.6
Other	59,049	62,714	51,473	49,132	50,300	52,092	18.3	-11.8	3.6
<b>Law enforcement disposition</b>									
Released	19,018	19,774	15,634	16,278	15,791	16,201	5.7	-14.8	2.6
Turned over to other agency	2,999	3,196	2,879	2,846	3,301	3,921	1.4	30.7	18.8
Complaint sought	389,912	389,337	274,854	270,080	267,559	265,127	92.9	-32.0	-0.9

Note: Percentages may not add to subtotals or 100.0 because of rounding.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.

<sup>1</sup> In 2014, the crime of "forcible rape" was changed to "rape." The definition was expanded to include both male and female victims and reflects the various forms of sexual penetration understood to be rape. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

<sup>2</sup> In November 2016, California voters passed Proposition 64 which legalized the possession and use of marijuana for individuals 21 years of age and older and reduced the offense degree for numerous statutes. Caution should be used when comparing drug offense arrests to prior years.

Table 24  
**JUVENILE FELONY ARRESTS, 2013-2018**  
By Category, Offense, and Law Enforcement Disposition

Category, offense, and law enforcement disposition	2013	2014 <sup>a</sup>	2015	2016	2017	2018		Percent change	
						Number	Percent	2013- 2018	2017- 2018
Total									
Total.....	30,812	27,651	21,381	19,656	19,373	17,265	100.0	-44.0	-10.9
Category and offense									
Violent offenses.....	8,303	8,024	7,341	7,128	7,291	7,320	42.4	-11.8	0.4
Homicide.....	105	95	88	91	98	84	0.5	-20.0	-14.3
Rape <sup>1</sup> .....	117	275	250	273	290	245	1.4	109.4	-15.5
Robbery.....	3,106	2,737	2,597	2,604	2,963	2,950	17.1	-5.0	-0.4
Assault.....	4,906	4,850	4,329	4,077	3,858	3,973	23.0	-19.0	3.0
Kidnapping.....	69	67	77	83	82	68	0.4	-1.4	-17.1
Property offenses.....	11,794	10,134	6,685	5,866	6,236	4,800	27.8	-59.3	-23.0
Burglary.....	7,405	6,520	3,506	2,801	2,671	1,946	11.3	-73.7	-27.1
Theft.....	2,537	1,962	1,426	1,329	1,588	1,300	7.5	-48.8	-18.1
Motor vehicle theft.....	1,463	1,340	1,485	1,460	1,722	1,373	8.0	-6.2	-20.3
Forgery, checks, access cards.....	101	94	80	68	55	34	0.2	-66.3	-38.2
Arson.....	288	218	188	208	200	147	0.9	-49.0	-26.5
Drug offenses.....	3,398	3,058	1,533	1,333	676	487	2.8	-85.7	-28.0
Narcotics.....	695	601	279	267	246	174	1.0	-75.0	-29.3
Marijuana <sup>2</sup> .....	1,556	1,383	879	695	179	128	0.7	-91.8	-28.5
Dangerous drugs.....	1,126	1,049	351	365	240	180	1.0	-84.0	-25.0
Other.....	21	25	24	6	11	5	0.0	-	-
Sex offenses.....	868	726	666	629	623	512	3.0	-41.0	-17.8
Lewd or lascivious.....	424	443	370	354	309	280	1.6	-34.0	-9.4
Other <sup>1</sup> .....	444	283	296	275	314	232	1.3	-47.7	-26.1
All other.....	6,449	5,709	5,156	4,700	4,547	4,146	24.0	-35.7	-8.8
Weapons.....	2,801	2,403	2,173	1,974	1,810	1,612	9.3	-42.4	-10.9
Driving under the influence.....	30	33	29	34	34	33	0.2	-	-
Hit-and-run.....	34	30	36	40	40	44	0.3	-	-
Escape.....	10	6	13	7	7	11	0.1	-	-
Other.....	3,574	3,237	2,905	2,645	2,656	2,446	14.2	-31.6	-7.9
Law enforcement disposition									
Released.....	2,395	1,940	1,349	1,332	1,484	1,079	6.2	-54.9	-27.3
Turned over to other agency.....	380	379	330	358	341	388	2.2	2.1	13.8
Complaint sought.....	28,037	25,332	19,702	17,966	17,548	15,798	91.5	-43.7	-10.0

Notes: Percentages may not add to subtotals because of rounding.

Dash indicates that a percent change is not calculated when the base number is less than 50.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported.

Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.

<sup>1</sup> In 2014, the crime of "forcible rape" was changed to "rape." The definition was expanded to include both male and female victims and reflects the various forms of sexual penetration understood to be rape. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

<sup>2</sup> In November 2016, California voters passed Proposition 64 which legalized the possession and use of marijuana for individuals 21 years of age and older and reduced the offense degree for numerous statutes. Caution should be used when comparing drug offense arrests to prior years.

Table 25  
**MISDEMEANOR ARRESTS, 2013-2018**  
 By Offense

Offense	2013		2014 <sup>a</sup>		2015		2016		2017		2018	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	750,985	100.0	762,006	100.0	835,370	100.0	804,568	100.0	784,229	100.0	784,245	100.0
Assault and battery.....	77,476	10.3	78,122	10.3	81,733	9.8	80,968	10.1	80,700	10.3	82,057	10.5
Petty theft.....	60,135	8.0	58,569	7.7	53,877	6.4	43,104	5.4	34,831	4.4	30,358	3.9
Drug offenses.....	80,896	10.8	92,469	12.1	163,073	19.5	181,002	22.5	183,649	23.4	191,706	24.4
Drunk.....	90,883	12.1	90,061	11.8	78,860	9.4	70,189	8.7	63,752	8.1	58,697	7.5
Driving under the influence....	157,369	21.0	151,416	19.9	137,677	16.5	125,963	15.7	119,354	15.2	123,253	15.7
All other.....	284,226	37.8	291,369	38.2	320,150	38.3	303,342	37.7	301,943	38.5	298,174	38.0

Note: Percentages may not add to 100.0 because of rounding.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.



Table 26  
**MISDEMEANOR ARRESTS, 2013-2018**  
 By Offense for Adult and Juvenile Arrests

Offense	2013		2014 <sup>a</sup>		2015		2016		2017		2018	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Total</b>												
	750,985	100.0	762,006	100.0	835,370	100.0	804,568	100.0	784,229	100.0	784,245	100.0
<b>Adult and juvenile arrests</b>												
Adult.....	696,670	92.8	713,715	93.7	793,522	95.0	768,812	95.6	754,183	96.2	760,022	96.9
Juvenile.....	54,315	7.2	48,291	6.3	41,848	5.0	35,756	4.4	30,046	3.8	24,223	3.1
<b>Offense for adult and juvenile arrests</b>												
Assault and battery.....	77,476	100.0	78,122	100.0	81,733	100.0	80,968	100.0	80,700	100.0	82,057	100.0
Adult.....	66,267	85.5	67,779	86.8	71,980	88.1	71,978	88.9	72,145	89.4	74,008	90.2
Juvenile.....	11,209	14.5	10,343	13.2	9,753	11.9	8,990	11.1	8,555	10.6	8,049	9.8
Petty theft.....	60,135	100.0	58,569	100.0	53,877	100.0	43,104	100.0	34,831	100.0	30,358	100.0
Adult.....	48,635	80.9	48,761	83.3	46,612	86.5	37,472	86.9	30,791	88.4	27,821	91.6
Juvenile.....	11,500	19.1	9,808	16.7	7,265	13.5	5,632	13.1	4,040	11.6	2,537	8.4
Drug offenses.....	80,896	100.0	92,469	100.0	163,073	100.0	181,002	100.0	183,649	100.0	191,706	100.0
Adult.....	74,998	92.7	87,031	94.1	157,894	96.8	176,023	97.2	180,458	98.3	189,217	98.7
Juvenile.....	5,898	7.3	5,438	5.9	5,179	3.2	4,979	2.8	3,191	1.7	2,489	1.3
Drunk.....	90,883	100.0	90,061	100.0	78,860	100.0	70,189	100.0	63,752	100.0	58,697	100.0
Adult.....	89,184	98.1	88,509	98.3	77,750	98.6	69,305	98.7	63,047	98.9	58,173	99.1
Juvenile.....	1,699	1.9	1,552	1.7	1,110	1.4	884	1.3	705	1.1	524	0.9
Driving under the influence..	157,369	100.0	151,416	100.0	137,677	100.0	125,963	100.0	119,354	100.0	123,253	100.0
Adult.....	156,799	99.6	150,920	99.7	137,189	99.6	125,501	99.6	118,927	99.6	122,807	99.6
Juvenile.....	570	0.4	496	0.3	488	0.4	462	0.4	427	0.4	446	0.4
All other.....	284,226	100.0	291,369	100.0	320,150	100.0	303,342	100.0	301,943	100.0	298,174	100.0
Adult.....	260,787	91.8	270,715	92.9	302,097	94.4	288,533	95.1	288,815	95.7	287,996	96.6
Juvenile.....	23,439	8.2	20,654	7.1	18,053	5.6	14,809	4.9	13,128	4.3	10,178	3.4

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.

Table 27  
**MISDEMEANOR ARRESTS, 2013-2018**  
Number, Rate per 100,000 Population at Risk, and Percent Change

Year(s)	Total			Assault and battery			Petty theft			Drug offenses			Drunk			Driving under the influence			All other		
	Total	Adult	Juvenile	Total	Adult	Juvenile	Total	Adult	Juvenile	Total	Adult	Juvenile	Total	Adult	Juvenile	Total	Adult	Juvenile	Total	Adult	Juvenile
2018.....	784,245	760,022	24,223	82,057	74,008	8,049	30,358	27,821	2,537	191,706	189,217	2,489	58,697	58,173	524	123,253	122,807	446	298,174	287,996	10,178
2017.....	784,229	754,183	30,046	80,700	72,145	8,555	34,831	30,791	4,040	183,649	180,458	3,191	63,752	63,047	705	119,354	118,927	427	301,943	288,815	13,128
2016.....	804,568	768,812	35,756	80,968	71,978	8,990	43,104	37,472	5,632	181,002	176,023	4,979	70,189	69,305	884	125,963	125,501	462	303,342	288,533	14,809
2015.....	835,370	793,522	41,848	81,733	71,980	9,753	53,877	46,612	7,265	163,073	157,894	5,179	78,860	77,750	1,110	137,677	137,189	488	320,150	302,097	18,053
2014 <sup>a</sup> .....	762,006	713,715	48,291	78,122	67,779	10,343	58,569	48,761	9,808	92,469	87,031	5,438	90,061	88,509	1,552	151,416	150,920	496	291,369	270,715	20,654
2013.....	750,985	696,670	54,315	77,476	66,267	11,209	60,135	48,635	11,500	80,896	74,998	5,898	90,883	89,184	1,699	157,369	156,799	570	284,226	260,787	23,439
Percent change in number																					
2017 to 2018.....	0.0	0.8	-19.4	1.7	2.6	-5.9	-12.8	-9.6	-37.2	4.4	4.9	-22.0	-7.9	-7.7	-25.7	3.3	3.3	4.4	-1.2	-0.3	-22.5
2016 to 2017.....	-2.5	-1.9	-16.0	-0.3	0.2	-4.8	-19.2	-17.8	-28.3	1.5	2.5	-35.9	-9.2	-9.0	-20.2	-5.2	-5.2	-7.6	-0.5	0.1	-11.4
2015 to 2016.....	-3.7	-3.1	-14.6	-0.9	0.0	-7.8	-20.0	-19.6	-22.5	11.0	11.5	-3.9	-11.0	-10.9	-20.4	-8.5	-8.5	-5.3	-5.3	-4.5	-18.0
2014 to 2015.....	9.6	11.2	-13.3	4.6	6.2	-5.7	-8.0	-4.4	-25.9	76.4	81.4	-4.8	-12.4	-12.2	-28.5	-9.1	-9.1	-1.6	9.9	11.6	-12.6
2013 to 2014.....	1.5	2.4	-11.1	0.8	2.3	-7.7	-2.6	0.3	-14.7	14.3	16.0	-7.8	-0.9	-0.8	-8.7	-3.8	-3.7	-13.0	2.5	3.8	-11.9
2013 to 2018.....	4.4	9.1	-55.4	5.9	11.7	-28.2	-49.5	-42.8	-77.9	137.0	152.3	-57.8	-35.4	-34.8	-69.2	-21.7	-21.7	-21.8	4.9	10.4	-56.6
Rate per 100,000 population at risk <sup>1</sup>																					
2018.....	2,534.1	2,844.6	572.7	265.1	277.0	190.3	98.1	104.1	60.0	619.4	708.2	58.8	189.7	217.7	12.4	398.3	459.6	10.5	963.5	1,077.9	240.6
2017.....	2,548.5	2,838.9	714.4	262.3	271.6	203.4	113.2	115.9	96.1	596.8	679.3	75.9	207.2	237.3	16.8	387.9	447.7	10.2	981.2	1,087.2	312.1
2016.....	2,623.9	2,902.6	856.2	264.1	271.8	215.3	140.6	141.5	134.9	590.3	664.6	119.2	228.9	261.7	21.2	410.8	473.8	11.1	989.3	1,089.3	354.6
2015.....	2,745.6	3,009.3	1,031.4	288.6	273.0	240.4	177.1	176.8	179.1	536.0	598.8	127.6	259.2	294.9	27.4	452.5	520.3	12.0	1,052.2	1,145.7	445.0
2014.....	2,524.0	2,731.4	1,189.3	258.8	259.4	254.7	194.0	186.6	241.6	306.3	333.1	133.9	298.3	338.7	38.2	501.5	577.6	12.2	965.1	1,036.0	508.7
2013.....	2,509.7	2,697.6	1,325.5	258.9	256.6	273.5	201.0	188.3	280.6	270.3	290.4	143.9	303.7	345.3	41.5	525.9	607.1	13.9	949.8	1,009.8	572.0
Percent change in rate																					
2017 to 2018.....	-0.6	0.2	-19.8	1.1	2.0	-6.4	-13.3	-10.2	-37.6	3.8	4.3	-22.5	-8.4	-8.3	-26.2	2.7	2.7	2.9	-1.8	-0.9	-22.9
2016 to 2017.....	-2.9	-2.2	-16.6	-0.7	-0.1	-5.5	-19.5	-18.1	-28.8	1.1	2.2	-36.3	-9.5	-9.3	-20.8	-5.6	-5.5	-8.1	-0.8	-0.2	-12.0
2015 to 2016.....	-4.4	-3.5	-17.0	-1.7	-0.4	-10.4	-20.6	-20.0	-24.7	10.1	11.0	-6.6	-11.7	-11.3	-22.6	-9.2	-8.9	-7.5	-6.0	-4.9	-20.3
2014 to 2015.....	8.8	10.2	-13.3	3.8	5.2	-5.6	-8.7	-5.3	-25.9	75.0	79.8	-4.7	-13.1	-12.9	-28.3	-9.8	-9.8	-1.6	9.0	10.6	-12.5
2013 to 2014.....	0.6	1.3	-10.3	0.0	1.1	-6.9	-3.5	-0.9	-13.9	13.3	14.7	-6.9	-1.8	-1.9	-8.0	-4.6	-4.9	-12.2	1.6	2.6	-11.1
2013 to 2018.....	1.0	5.4	-56.8	2.4	8.0	-30.4	-51.2	-44.7	-78.6	129.2	143.9	-59.1	-37.5	-37.0	-70.1	-24.3	-24.3	-24.5	1.4	6.7	-57.9

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.

<sup>1</sup> Rates are based on the population at risk for each year. The categories are total (10-69 years of age), adult (18-69 years of age), and juvenile (10-17 years of age) (see Table 52).

Table 28  
**ADULT MISDEMEANOR ARRESTS, 2013-2018**  
 By Offense and Law Enforcement Disposition

Offense and law enforcement disposition	2013	2014 <sup>a</sup>	2015	2016	2017	2018		Percent change	
						Number	Percent	2013- 2018	2017- 2018
Total									
Total.....	696,670	713,715	793,522	768,812	754,183	760,022	100.0	9.1	0.8
Offense									
Assault and battery.....	66,267	67,779	71,980	71,978	72,145	74,008	9.7	11.7	2.6
Burglary.....	567	3,048	18,125	15,926	14,280	13,496	1.8	2,280.2	-5.5
Petty theft.....	48,635	48,761	46,612	37,472	30,791	27,821	3.7	-42.8	-9.6
Checks and access cards.....	409	468	1,110	1,050	1,073	1,003	0.1	145.2	-6.5
Drug offenses.....	74,998	87,031	157,894	176,023	180,458	189,217	24.9	152.3	4.9
Indecent exposure.....	1,219	1,288	1,426	1,386	1,455	1,593	0.2	30.7	9.5
Annoying children.....	543	475	473	441	428	435	0.1	-19.9	1.6
Obscene matter.....	50	60	52	62	47	47	0.0	-6.0	-
Lewd conduct.....	1,312	1,367	1,249	1,259	1,117	1,077	0.1	-17.9	-3.6
Prostitution.....	9,668	8,648	7,679	7,236	6,751	6,071	0.8	-37.2	-10.1
Drunk.....	89,184	88,509	77,750	69,305	63,047	58,173	7.7	-34.8	-7.7
Liquor laws.....	11,828	13,643	10,667	7,707	6,068	5,052	0.7	-57.3	-16.7
Disorderly conduct.....	7,021	7,942	7,384	6,497	6,788	7,206	0.9	2.6	6.2
Disturbing the peace.....	3,150	3,352	2,776	2,662	2,364	2,469	0.3	-21.6	4.4
Vandalism.....	6,645	6,766	7,498	7,668	7,472	6,974	0.9	5.0	-6.7
Trespassing.....	14,789	16,401	21,204	23,139	25,271	27,854	3.7	88.3	10.2
Weapons.....	4,312	4,037	4,636	4,786	4,941	4,704	0.6	9.1	-4.8
Driving under the influence.....	156,799	150,920	137,189	125,501	118,927	122,807	16.2	-21.7	3.3
Hit-and-run.....	4,788	5,090	5,125	5,466	5,501	5,271	0.7	10.1	-4.2
Selected traffic violations.....	12,411	12,575	11,927	9,550	7,721	7,602	1.0	-38.7	-1.5
Gambling.....	378	270	233	256	271	341	0.0	-9.8	25.8
Nonsupport.....	47	46	62	43	46	59	0.0	-	-
All other.....	181,650	185,239	200,471	193,399	197,221	196,742	25.9	8.3	-0.2
Law enforcement disposition									
Released.....	38,039	36,945	36,242	32,499	30,742	32,786	4.3	-13.8	6.6
Turned over to other agency.....	6,400	6,705	8,078	9,245	9,341	11,697	1.5	82.8	25.2
Complaint sought.....	652,231	670,065	749,202	727,068	714,100	715,539	94.1	9.7	0.2

Notes: Percentages may not add to 100.0 because of rounding.

Dash indicates that a percent change is not calculated when the base number is less than 50.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Limitations and Appendix 3, Arrest Offense Codes.

Table 29  
**JUVENILE MISDEMEANOR AND STATUS OFFENSE ARRESTS, 2013-2018**  
 By Level of Offense, Offense, and Law Enforcement Disposition

Offense and law enforcement disposition	2013	2014 <sup>a</sup>	2015	2016	2017	2018		Percent change	
						Number	Percent	2013-2018	2017-2018
<b>Total</b>	<b>66,125</b>	<b>59,172</b>	<b>50,542</b>	<b>43,087</b>	<b>36,876</b>	<b>29,158</b>	<b>100.0</b>	<b>-55.9</b>	<b>-20.9</b>
<b>Offense</b>									
Assault and battery	11,209	10,343	9,753	8,990	8,555	8,049	27.6	-28.2	-5.9
Burglary	156	393	2,059	1,809	1,407	924	3.2	492.3	-34.3
Petty theft	11,500	9,808	7,265	5,632	4,040	2,537	8.7	-77.9	-37.2
Checks and access cards	34	17	46	46	42	26	0.1	-	-
Drug offenses	5,898	5,438	5,179	4,979	3,191	2,489	8.5	-57.8	-22.0
Indecent exposure	50	44	41	41	42	33	0.1	-34.0	-
Annoying children	153	130	133	98	83	67	0.2	-56.2	-19.3
Obscene matter	50	74	71	71	83	35	0.1	-30.0	-57.8
Lewd conduct	84	106	86	113	113	64	0.2	-23.8	-43.4
Prostitution	195	174	141	102	14	8	0.0	-95.9	-
Drunk	1,699	1,552	1,110	884	705	524	1.8	-69.2	-25.7
Liquor laws	2,284	2,190	1,659	1,219	1,140	934	3.2	-59.1	-18.1
Disorderly conduct	175	173	125	101	107	88	0.3	-49.7	-17.8
Disturbing the peace	4,079	2,978	1,927	1,260	1,198	1,007	3.5	-75.3	-15.9
Vandalism	3,277	2,788	2,334	1,978	1,655	1,166	4.0	-64.4	-29.5
Trespassing	1,512	1,296	1,243	1,069	988	705	2.4	-53.4	-28.6
Weapons	1,366	1,279	1,324	1,396	1,276	1,138	3.9	-16.7	-10.8
Driving under the influence	570	496	488	462	427	446	1.5	-21.8	4.4
Hit-and-run	199	224	206	222	212	225	0.8	13.1	6.1
Selected traffic violations	236	262	254	253	294	239	0.8	1.3	-18.7
Joy riding	42	26	29	51	42	28	0.1	-	-
Gambling	10	15	20	3	11	8	0.0	-	-
Glue sniffing	61	54	57	55	30	38	0.1	-37.7	-
All other	9,476	8,431	6,298	4,922	4,391	3,445	11.8	-63.6	-21.5
Status offenses <sup>1</sup>	11,810	10,881	8,694	7,331	6,830	4,935	16.9	-58.2	-27.7
<b>Law enforcement disposition</b>									
Released	16,218	14,135	11,624	10,547	8,859	6,555	22.5	-59.6	-26.0
Turned over to other agency	738	604	600	593	513	527	1.8	-28.6	2.7
Complaint sought	49,169	44,433	38,318	31,947	27,504	22,076	75.7	-55.1	-19.7

Notes: Percentages may not add to 100.0 because of rounding.

<sup>a</sup> Dash indicates that a percent change is not calculated when the base number is less than 50.

<sup>1</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. These changes affected the offenses reported. Caution should be used when comparing felony and misdemeanor arrest data to prior years. For additional information, see Appendix 1, Data Characteristics and Known Data Limitations and Appendix 3, Arrest Offense Codes.

<sup>1</sup> Status offenses include truancy, incorrigibility, running away, and curfew violations. These offenses can only be committed or engaged in by a juvenile.

Table 30  
**FELONY AND MISDEMEANOR ARRESTS, 2018**  
 Gender, Age, and Race/Ethnic Group of Arrestee

Gender, age, and race/ethnic group	Total		Total		Felony		Misdemeanor	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total								
Total.....	1,086,759	100.0	1,086,759	100.0	302,514	27.8	784,245	72.2
Gender								
Male.....	830,118	76.4	830,118	100.0	239,643	28.9	590,475	71.1
Female.....	256,641	23.6	256,641	100.0	62,871	24.5	193,770	75.5
Age								
Under 18.....	41,488	3.8	41,488	100.0	17,265	41.6	24,223	58.4
18-29.....	394,673	36.3	394,673	100.0	119,531	30.3	275,142	69.7
18-19.....	38,211	3.5	38,211	100.0	14,401	37.7	23,810	62.3
20-29.....	356,462	32.8	356,462	100.0	105,130	29.5	251,332	70.5
30 and over.....	650,598	59.9	650,598	100.0	165,718	25.5	484,880	74.5
Race/ethnic group								
White.....	395,208	36.4	395,208	100.0	93,516	23.7	301,692	76.3
Hispanic.....	450,189	41.4	450,189	100.0	128,393	28.5	321,796	71.5
Black.....	173,996	16.0	173,996	100.0	61,997	35.6	111,999	64.4
Other.....	67,366	6.2	67,366	100.0	18,608	27.6	48,758	72.4
American Indian.....	5,672	0.5	5,672	100.0	1,617	28.5	4,055	71.5
Asian Indian.....	2,198	0.2	2,198	100.0	581	26.4	1,617	73.6
Cambodian.....	330	0.0	330	100.0	137	41.5	193	58.5
Chinese.....	2,008	0.2	2,008	100.0	734	36.6	1,274	63.4
Filipino.....	4,056	0.4	4,056	100.0	1,258	31.0	2,798	69.0
Japanese.....	326	0.0	326	100.0	90	27.6	236	72.4
Korean.....	550	0.1	550	100.0	145	26.4	405	73.6
Laotian.....	391	0.0	391	100.0	132	33.8	259	66.2
Vietnamese.....	2,544	0.2	2,544	100.0	726	28.5	1,818	71.5
Other Asian.....	14,723	1.4	14,723	100.0	4,165	28.3	10,558	71.7
Guamanian.....	183	0.0	183	100.0	59	32.2	124	67.8
Hawaiian.....	1,344	0.1	1,344	100.0	337	25.1	1,007	74.9
Pacific Islander.....	2,209	0.2	2,209	100.0	700	31.7	1,509	68.3
Samoan.....	658	0.1	658	100.0	211	32.1	447	67.9
Other.....	30,174	2.8	30,174	100.0	7,716	25.6	22,458	74.4

Note: Percentages may not add to subtotals because of rounding.

Table 31  
**FELONY ARRESTS, 2018**  
 Category and Offense by Gender and Race/Ethnic Group of Arrestee

Category and offense	Number						Percent							
	Total	Gender		Race/ethnic group			Total	Gender		Race/ethnic group				
		Male	Female	White	Hispanic	Black		Other	Male	Female	White	Hispanic	Black	Other
Total.....	302,514	239,643	62,871	93,516	128,393	61,997	18,608	100.0	79.2	20.8	30.9	42.4	20.5	6.2
Violent offenses.....	112,461	87,330	25,131	31,088	48,181	25,534	7,658	100.0	77.7	22.3	27.6	42.8	22.7	6.8
Homicide.....	1,416	1,249	167	282	672	370	92	100.0	88.2	11.8	19.9	47.5	26.1	6.5
Rape.....	2,541	2,487	54	590	1,303	448	200	100.0	97.9	2.1	23.2	51.3	17.6	7.9
Robbery.....	16,713	13,709	3,004	3,160	6,650	6,206	697	100.0	82.0	18.0	18.9	39.8	37.1	4.2
Assault.....	90,089	68,419	21,670	26,691	38,737	18,097	6,564	100.0	75.9	24.1	29.6	43.0	20.1	7.3
Kidnapping.....	1,702	1,466	236	365	819	413	105	100.0	86.1	13.9	21.4	48.1	24.3	6.2
Property offenses.....	72,962	54,414	18,548	23,529	30,889	14,371	4,173	100.0	74.6	25.4	32.2	42.3	19.7	5.7
Burglary.....	20,887	16,931	3,956	6,806	8,054	4,979	1,048	100.0	81.1	18.9	32.6	38.6	23.8	5.0
Theft.....	28,964	20,476	8,488	9,970	11,840	5,307	1,847	100.0	70.7	29.3	34.4	40.9	18.3	6.4
Motor vehicle theft....	17,714	13,324	4,390	4,809	8,892	3,172	841	100.0	75.2	24.8	27.1	50.2	17.9	4.7
Forgery, checks, access cards.....	4,031	2,612	1,419	1,421	1,601	675	334	100.0	64.8	35.2	35.3	39.7	16.7	8.3
Arson.....	1,366	1,071	295	523	502	238	103	100.0	78.4	21.6	38.3	36.7	17.4	7.5
Drug offenses.....	28,376	23,356	5,020	10,097	11,987	4,355	1,937	100.0	82.3	17.7	35.6	42.2	15.3	6.8
Narcotics.....	9,061	7,548	1,513	3,481	3,217	1,901	462	100.0	83.3	16.7	38.4	35.5	21.0	5.1
Marijuana.....	1,617	1,414	203	336	623	333	325	100.0	87.4	12.6	20.8	38.5	20.6	20.1
Dangerous drugs.....	16,457	13,437	3,020	5,872	7,728	1,999	858	100.0	81.6	18.4	35.7	47.0	12.1	5.2
Other.....	1,241	957	284	408	419	122	292	100.0	77.1	22.9	32.9	33.8	9.8	23.5
Sex offenses.....	5,179	4,966	213	1,503	2,317	1,040	319	100.0	95.9	4.1	29.0	44.7	20.1	6.2
Lewd or lascivious....	1,889	1,849	40	364	1,256	161	108	100.0	97.9	2.1	19.3	66.5	8.5	5.7
Other.....	3,290	3,117	173	1,139	1,061	879	211	100.0	94.7	5.3	34.6	32.2	26.7	6.4
Driving offenses.....	6,190	4,903	1,287	1,895	3,193	664	438	100.0	79.2	20.8	30.6	51.6	10.7	7.1
Driving under the influence.....	4,939	3,898	1,041	1,569	2,538	499	333	100.0	78.9	21.1	31.8	51.4	10.1	6.7
Hit-and-run.....	1,251	1,005	246	326	655	165	105	100.0	80.3	19.7	26.1	52.4	13.2	8.4
All other.....	77,346	64,674	12,672	25,404	31,826	16,033	4,083	100.0	83.6	16.4	32.8	41.1	20.7	5.3
Weapons.....	22,476	20,683	1,793	5,803	10,590	5,060	1,023	100.0	92.0	8.0	25.8	47.1	22.5	4.6
Escape.....	332	271	61	145	124	48	15	100.0	81.6	18.4	43.7	37.3	14.5	4.5
Other.....	54,538	43,720	10,818	19,456	21,112	10,925	3,045	100.0	80.2	19.8	35.7	38.7	20.0	5.6

Note: Percentages may not add to 100.0 because of rounding.



Table 32  
**FELONY ARRESTS, 2018**  
 Category and Offense by Age Group of Arrestee

Category and offense	Number						Percent					
	Total	Under 18	18-19	20-29	30-39	40 and over	Total	Under 18	18-19	20-29	30-39	40 and over
Total.....	302,514	17,265	14,401	105,130	87,766	77,952	100.0	5.7	4.8	34.8	29.0	25.8
Violent offenses.....	112,461	7,320	5,530	38,646	31,010	29,955	100.0	6.5	4.9	34.4	27.6	26.6
Homicide.....	1,416	84	167	581	302	282	100.0	5.9	11.8	41.0	21.3	19.9
Rape.....	2,541	245	137	727	615	817	100.0	9.6	5.4	28.6	24.2	32.2
Robbery.....	16,713	2,950	1,813	6,271	3,339	2,340	100.0	17.7	10.8	37.5	20.0	14.0
Assault.....	90,089	3,973	3,309	30,383	26,247	26,177	100.0	4.4	3.7	33.7	29.1	29.1
Kidnapping.....	1,702	68	104	684	507	339	100.0	4.0	6.1	40.2	29.8	19.9
Property offenses.....	72,962	4,800	3,739	26,775	22,349	15,299	100.0	6.6	5.1	36.7	30.6	21.0
Burglary.....	20,887	1,946	1,384	7,758	5,812	3,987	100.0	9.3	6.6	37.1	27.8	19.1
Theft.....	28,964	1,300	1,332	10,397	9,309	6,626	100.0	4.5	4.6	35.9	32.1	22.9
Motor vehicle theft.....	17,714	1,373	889	6,963	5,267	3,222	100.0	7.8	5.0	39.3	29.7	18.2
Forgery, checks, access cards.....	4,031	34	96	1,309	1,589	1,003	100.0	0.8	2.4	32.5	39.4	24.9
Arson.....	1,366	147	38	348	372	461	100.0	10.8	2.8	25.5	27.2	33.7
Drug offenses.....	28,376	487	957	8,855	8,605	9,472	100.0	1.7	3.4	31.2	30.3	33.4
Narcotics.....	9,061	174	374	3,319	2,592	2,602	100.0	1.9	4.1	36.6	28.6	28.7
Marijuana.....	1,617	128	155	613	346	375	100.0	7.9	9.6	37.9	21.4	23.2
Dangerous drugs.....	16,457	180	402	4,534	5,272	6,069	100.0	1.1	2.4	27.6	32.0	36.9
Other.....	1,241	5	26	389	395	426	100.0	0.4	2.1	31.3	31.8	34.3
Sex offenses.....	5,179	512	213	1,112	1,157	2,185	100.0	9.9	4.1	21.5	22.3	42.2
Lewd or lascivious.....	1,889	280	97	342	444	726	100.0	14.8	5.1	18.1	23.5	38.4
Other.....	3,290	232	116	770	713	1,459	100.0	7.1	3.5	23.4	21.7	44.3
Driving offenses.....	6,190	77	236	2,477	1,582	1,818	100.0	1.2	3.8	40.0	25.6	29.4
Driving under the influence.....	4,939	33	163	1,992	1,290	1,461	100.0	0.7	3.3	40.3	26.1	29.6
Hit-and-run.....	1,251	44	73	485	292	357	100.0	3.5	5.8	38.8	23.3	28.5
All other.....	77,346	4,069	3,726	27,265	23,063	19,223	100.0	5.3	4.8	35.3	29.8	24.9
Weapons.....	22,476	1,612	1,616	8,474	6,048	4,726	100.0	7.2	7.2	37.7	26.9	21.0
Escape.....	332	11	14	122	107	78	100.0	3.3	4.2	36.7	32.2	23.5
Other.....	54,538	2,446	2,096	18,669	16,908	14,419	100.0	4.5	3.8	34.2	31.0	26.4

Note: Percentages may not add to 100.0 because of rounding.

Table 33  
**FELONY ARRESTS, 2018**  
 Category and Offense by Gender, Race/Ethnic Group, and Age Group of Arrestee

Category, offense, and age	Total			White			Hispanic			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>Total.....</b>	<b>302,514</b>	<b>239,643</b>	<b>62,871</b>	<b>93,516</b>	<b>70,840</b>	<b>22,676</b>	<b>128,393</b>	<b>105,094</b>	<b>23,299</b>	<b>61,997</b>	<b>49,171</b>	<b>12,826</b>	<b>18,608</b>	<b>14,538</b>	<b>4,070</b>
Under 10.....	36	32	4	16	15	1	16	14	2	3	3	0	1	0	1
10-17.....	17,229	14,081	3,148	2,666	2,135	531	8,831	7,340	1,491	4,731	3,785	946	1,001	821	180
18-19.....	14,401	11,869	2,532	2,501	1,969	532	7,500	6,387	1,113	3,755	3,000	755	645	513	132
20-29.....	105,130	82,229	22,901	26,582	19,559	7,023	51,005	41,437	9,568	21,967	16,952	5,015	5,576	4,281	1,295
30-39.....	87,766	68,496	19,270	29,682	22,087	7,595	36,950	29,843	7,107	15,264	12,002	3,262	5,870	4,564	1,306
40-69.....	76,778	61,911	14,867	31,456	24,550	6,906	23,864	19,865	3,999	16,094	13,266	2,828	5,364	4,230	1,134
70 and over.....	1,174	1,025	149	613	525	88	227	208	19	183	163	20	151	129	22
<b>Violent offenses.....</b>	<b>112,461</b>	<b>87,330</b>	<b>25,131</b>	<b>31,088</b>	<b>23,296</b>	<b>7,792</b>	<b>48,181</b>	<b>38,664</b>	<b>9,517</b>	<b>25,534</b>	<b>19,605</b>	<b>5,929</b>	<b>7,658</b>	<b>5,765</b>	<b>1,893</b>
Under 10.....	9	7	2	2	2	0	4	3	1	2	2	0	1	0	1
10-17.....	7,311	5,895	1,416	1,091	863	228	3,621	2,992	629	2,211	1,725	486	388	315	73
18-19.....	5,530	4,419	1,111	851	671	180	2,849	2,328	521	1,569	1,217	352	261	203	58
20-29.....	38,646	29,444	9,202	8,151	5,936	2,215	19,059	15,027	4,032	9,175	6,833	2,342	2,261	1,648	613
30-39.....	31,010	23,933	7,077	9,134	6,762	2,372	13,564	10,855	2,709	5,968	4,580	1,388	2,344	1,736	608
40-69.....	29,293	23,072	6,221	11,525	8,782	2,743	8,980	7,369	1,611	6,490	5,146	1,344	2,298	1,775	523
70 and over.....	662	560	102	334	280	54	104	90	14	119	102	17	105	88	17
<b>Homicide.....</b>	<b>1,416</b>	<b>1,249</b>	<b>167</b>	<b>282</b>	<b>227</b>	<b>55</b>	<b>672</b>	<b>604</b>	<b>68</b>	<b>370</b>	<b>335</b>	<b>35</b>	<b>92</b>	<b>83</b>	<b>9</b>
Under 10.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-17.....	84	75	9	9	9	0	54	47	7	18	16	2	3	3	0
18-19.....	167	152	15	17	16	1	98	86	12	49	47	2	3	3	0
20-29.....	581	522	59	80	63	17	301	274	27	162	148	14	38	37	1
30-39.....	302	263	39	67	53	14	141	126	15	70	61	9	24	23	1
40-69.....	264	223	41	98	77	21	78	71	7	69	61	8	19	14	5
70 and over.....	18	14	4	11	9	2	0	0	0	2	2	0	5	3	2
<b>Rape.....</b>	<b>2,541</b>	<b>2,487</b>	<b>54</b>	<b>590</b>	<b>571</b>	<b>19</b>	<b>1,303</b>	<b>1,280</b>	<b>23</b>	<b>448</b>	<b>439</b>	<b>9</b>	<b>200</b>	<b>197</b>	<b>3</b>
Under 10.....	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0
10-17.....	244	230	14	56	52	4	121	113	8	51	49	2	16	16	0
18-19.....	137	135	2	30	29	1	76	76	0	19	18	1	12	12	0
20-29.....	727	711	16	133	130	3	399	390	9	134	131	3	61	60	1
30-39.....	615	600	15	144	136	8	327	322	5	94	93	1	50	49	1
40-69.....	789	782	7	215	212	3	369	368	1	145	143	2	60	59	1
70 and over.....	28	28	0	12	12	0	10	10	0	5	5	0	1	1	0
<b>Robbery.....</b>	<b>16,713</b>	<b>13,709</b>	<b>3,004</b>	<b>3,160</b>	<b>2,484</b>	<b>676</b>	<b>6,650</b>	<b>5,642</b>	<b>1,008</b>	<b>6,206</b>	<b>4,988</b>	<b>1,218</b>	<b>697</b>	<b>595</b>	<b>102</b>
Under 10.....	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0
10-17.....	2,949	2,512	437	245	198	47	1,327	1,152	175	1,256	1,056	200	121	106	15
18-19.....	1,813	1,522	291	171	135	36	823	709	114	744	613	131	75	65	10
20-29.....	6,271	5,073	1,198	1,087	843	244	2,646	2,230	416	2,288	1,781	507	250	219	31
30-39.....	3,339	2,728	611	918	730	188	1,232	1,038	194	1,039	842	197	150	118	32
40-69.....	2,323	1,859	464	728	568	160	620	512	108	874	692	182	101	87	14
70 and over.....	17	14	3	11	10	1	2	1	1	4	3	1	0	0	0

(continued)

Table 33 - continued  
**FELONY ARRESTS, 2018**  
 Category and Offense by Gender, Race/Ethnic Group, and Age Group of Arrestee

Category, offense, and age	Total		White		Hispanic		Black		Other	
	Total	Female	Total	Male	Total	Female	Total	Male	Total	Female
Assault.....	90,089	21,670	26,691	19,712	6,979	8,316	18,097	13,492	6,564	4,794
Under 10.....	7	2	2	2	0	1	1	1	1	0
10-17.....	3,966	943	772	595	177	429	867	588	248	190
18-19.....	3,309	791	622	481	141	391	720	509	167	119
20-29.....	30,383	7,829	6,740	4,807	1,933	3,533	6,410	4,624	1,880	1,303
30-39.....	26,247	6,345	7,876	5,743	2,133	2,473	4,665	3,498	2,076	1,504
40-69.....	25,582	5,665	10,382	7,838	2,544	1,476	5,326	4,180	2,094	1,595
70 and over.....	595	95	297	246	51	13	108	92	98	83
Kidnapping.....	1,702	236	365	302	63	102	413	351	105	96
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	68	13	9	9	0	10	19	16	0	0
18-19.....	104	12	11	10	1	4	37	30	4	4
20-29.....	684	100	111	93	18	47	181	149	32	29
30-39.....	507	67	129	100	29	22	100	86	44	42
40-69.....	335	44	102	87	15	19	76	70	24	20
70 and over.....	4	0	3	3	0	0	0	0	1	0
Property offenses.....	72,962	18,548	23,529	16,804	6,725	7,096	14,371	10,704	4,173	3,113
Under 10.....	13	1	7	7	0	1	1	1	0	0
10-17.....	4,787	972	720	571	149	518	1,458	1,202	246	197
18-19.....	3,739	835	697	513	184	336	1,133	870	158	106
20-29.....	26,775	7,008	7,400	5,159	2,241	2,946	5,350	3,854	1,244	919
30-39.....	22,349	6,121	8,134	5,651	2,483	2,276	3,504	2,500	1,438	1,080
40-69.....	15,213	3,595	6,516	4,860	1,656	1,019	2,913	2,268	1,080	805
70 and over.....	86	16	55	43	12	0	12	9	7	6
Burglary.....	20,887	3,956	6,806	5,251	1,555	1,328	4,979	4,106	1,048	848
Under 10.....	9	1	4	4	0	1	1	1	0	0
10-17.....	1,937	271	330	280	50	124	653	570	101	87
18-19.....	1,384	215	250	197	53	72	537	457	58	48
20-29.....	7,758	1,447	2,130	1,630	500	520	1,983	1,617	331	270
30-39.....	5,812	1,250	2,250	1,716	534	423	1,004	778	329	262
40-69.....	3,968	769	1,832	1,415	417	188	798	681	225	178
70 and over.....	19	3	10	9	1	0	3	2	4	3
Theft.....	28,964	8,488	9,970	6,823	3,147	3,167	5,307	3,668	1,847	1,312
Under 10.....	1	0	1	1	0	0	0	0	0	0
10-17.....	1,299	322	165	116	49	160	440	343	87	71
18-19.....	1,332	376	267	188	79	151	385	264	53	28
20-29.....	10,397	3,166	3,146	2,098	1,048	1,275	1,944	1,263	532	370
30-39.....	9,309	2,893	3,543	2,336	1,207	1,070	1,367	936	634	449
40-69.....	6,584	1,722	2,822	2,065	757	511	1,163	856	538	391
70 and over.....	42	9	26	19	7	0	8	6	3	3

(continued)

Table 33 - continued  
**FELONY ARRESTS, 2018**  
 Category and Offense by Gender, Race/Ethnic Group, and Age Group of Arrestee

Category, offense, and age	Total		White		Hispanic		Black		Other	
	Total	Male	Total	Male	Total	Male	Total	Male	Total	Male
Identity theft.....	3,402	1,992	1,239	676	1,288	770	583	356	292	190
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	24	12	5	3	11	7	4	1	4	1
18-19.....	59	35	18	11	24	14	15	9	2	1
20-29.....	1,157	650	507	208	482	288	194	109	79	45
30-39.....	1,392	818	506	271	541	318	223	142	126	87
40-69.....	768	475	308	183	230	143	87	93	81	56
70 and over.....	2	2	0	0	0	0	0	2	0	0
Other theft.....	25,562	18,484	8,731	6,147	10,552	7,903	4,724	3,312	1,555	1,122
Under 10.....	1	1	0	1	0	0	0	0	0	0
10-17.....	1,275	965	160	113	596	440	436	342	83	70
18-19.....	1,273	921	249	177	603	462	370	255	51	27
20-29.....	9,240	6,581	2,744	1,890	4,293	3,212	1,750	1,154	453	325
30-39.....	7,917	5,598	3,037	2,065	3,224	2,377	1,448	794	508	362
40-69.....	5,816	4,387	2,514	1,882	1,831	1,407	1,014	763	457	335
70 and over.....	40	31	26	19	5	5	6	4	3	3
Motor vehicle theft.....	17,714	13,324	4,809	3,464	8,892	6,888	3,172	2,341	841	631
Under 10.....	1	1	0	1	0	0	0	0	0	0
10-17.....	1,372	1,025	159	117	823	607	345	272	45	29
18-19.....	889	687	202	103	523	423	189	139	32	22
20-29.....	6,963	5,111	1,612	1,106	3,956	3,025	1,123	787	272	193
30-39.....	5,267	3,953	1,622	1,160	2,497	1,939	831	601	317	253
40-69.....	3,209	2,538	1,261	972	1,089	890	684	542	175	134
70 and over.....	13	9	9	5	4	4	0	0	0	0
Forgery, checks, access cards.....	4,031	2,612	1,421	864	1,601	1,087	675	424	334	237
Under 10.....	1	1	0	1	0	0	0	0	0	0
10-17.....	33	25	7	5	16	12	6	5	4	3
18-19.....	96	62	25	17	47	37	18	7	6	1
20-29.....	1,309	836	400	237	581	378	240	151	88	70
30-39.....	1,589	1,016	589	351	633	435	235	137	132	93
40-69.....	998	667	395	249	324	225	175	123	104	70
70 and over.....	5	5	4	4	0	0	1	1	0	0
Arson.....	1,366	1,071	523	402	502	419	238	165	103	85
Under 10.....	1	1	0	0	1	1	0	0	0	0
10-17.....	146	122	59	53	64	50	14	12	9	7
18-19.....	38	30	10	8	15	12	4	3	9	7
20-29.....	348	278	112	88	155	138	60	36	21	16
30-39.....	372	281	130	88	149	122	67	48	26	23
40-69.....	454	352	206	159	117	95	93	66	38	32
70 and over.....	7	7	6	6	1	1	0	0	0	0

(continued)

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Table 33 - continued  
**FELONY ARRESTS, 2018**  
 Category and Offense by Gender, Race/Ethnic Group, and Age Group of Arrestee

Category, offense, and age	Total		White		Hispanic		Black		Other	
	Total	Male	Total	Male	Total	Male	Total	Male	Total	Male
Sex offenses.....	5,179	4,966	1,503	1,429	2,317	2,252	1,040	990	319	295
Under 10.....	2	2	2	2	0	0	0	0	0	0
10-17.....	510	454	116	104	273	242	91	83	30	25
18-19.....	213	203	42	39	122	120	39	34	10	10
20-29.....	1,112	1,065	234	218	526	513	290	273	62	61
30-39.....	1,157	1,119	314	297	562	554	209	200	72	68
40-69.....	2,061	1,999	744	718	784	773	399	388	134	120
70 and over.....	124	124	51	51	50	50	12	12	11	11
Lewd or lascivious.....	1,889	1,849	364	346	1,256	1,243	161	155	108	105
Under 10.....	2	2	2	2	0	0	0	0	0	0
10-17.....	278	261	69	62	155	147	40	38	14	14
18-19.....	97	92	16	15	65	63	13	11	3	3
20-29.....	342	338	64	63	223	220	39	39	16	16
30-39.....	444	438	62	58	332	332	26	25	24	23
40-69.....	675	667	138	133	451	451	42	41	44	42
70 and over.....	51	51	13	13	30	30	1	1	7	7
Other sex.....	3,290	3,117	1,139	1,083	1,061	1,009	879	835	211	190
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	232	193	47	42	118	95	51	45	16	11
18-19.....	116	111	26	24	57	57	26	23	7	7
20-29.....	770	727	10	155	303	293	251	234	46	45
30-39.....	713	681	252	239	230	222	183	175	48	45
40-69.....	1,386	1,332	606	585	333	322	357	347	90	78
70 and over.....	73	73	38	38	20	20	11	11	4	4
Driving offenses.....	6,190	4,903	1,895	1,366	3,193	2,702	664	492	438	343
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	77	59	16	13	48	35	7	7	6	4
18-19.....	236	183	62	44	142	115	14	9	18	15
20-29.....	2,477	1,946	608	438	1,485	1,236	198	137	186	135
30-39.....	1,582	1,290	478	352	801	698	186	140	117	100
40-69.....	1,749	1,367	691	486	704	608	253	193	101	80
70 and over.....	69	58	40	33	13	10	6	6	10	9
Driving under the influence.....	4,939	3,898	1,569	1,119	2,538	2,141	499	371	333	267
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	33	23	8	5	22	15	0	0	3	3
18-19.....	163	131	52	38	93	80	9	5	9	8
20-29.....	1,992	1,552	511	366	1,203	986	135	94	143	106
30-39.....	1,290	1,050	396	292	654	567	143	107	97	84
40-69.....	1,410	1,099	572	394	555	484	207	160	76	61
70 and over.....	51	43	30	24	11	9	5	5	5	5

(continued)





Table 34  
**MISDEMEANOR ARRESTS, 2018**  
Offense by Gender and Race/Ethnic Group of Arrestee

Offense	Number						Percent						
	Total	Gender		Race/ethnic group			Total	Gender		Race/ethnic group			
		Male	Female	White	Hispanic	Black		Other	Male	Female	White	Hispanic	Black
Total.....	784,245	590,475	193,770	301,692	321,796	111,999	48,758	75.3	24.7	38.5	41.0	14.3	6.2
Assault and battery.....	82,057	59,756	22,301	26,285	33,715	16,441	5,616	72.8	27.2	32.0	41.1	20.0	6.8
Burglary.....	14,420	8,550	5,870	5,443	4,857	3,180	940	59.3	40.7	37.7	33.7	22.1	6.5
Petty theft.....	30,358	18,378	11,980	11,726	10,214	6,250	2,168	60.5	39.5	38.6	33.6	20.6	7.1
Checks and access cards....	1,029	684	345	387	389	188	65	66.5	33.5	37.6	37.8	18.3	6.3
Marijuana.....	3,835	3,039	796	1,007	1,771	529	528	79.2	20.8	26.3	46.2	13.8	13.8
Other drug.....	187,871	145,379	42,492	83,504	74,797	20,252	9,318	77.4	22.6	44.4	39.8	10.8	5.0
Indecent exposure.....	1,626	1,490	136	608	549	362	107	91.6	8.4	37.4	33.8	22.3	6.6
Annoying children.....	502	455	47	118	265	74	45	90.6	9.4	23.5	52.8	14.7	9.0
Obscene matter.....	82	69	13	35	33	3	11	84.1	15.9	42.7	40.2	3.7	13.4
Lewd conduct.....	1,141	916	225	348	454	247	92	80.3	19.7	30.5	39.8	21.6	8.1
Prostitution.....	6,079	1,948	4,131	880	1,716	2,758	725	32.0	68.0	14.5	28.2	45.4	11.9
Drunk.....	58,697	47,275	11,422	26,895	22,601	5,726	3,475	80.5	19.5	45.8	38.5	9.8	5.9
Liquor laws.....	5,986	4,427	1,559	2,035	2,477	928	546	74.0	26.0	34.0	41.4	15.5	9.1
Disturbing the peace.....	3,476	2,504	972	1,190	1,267	764	255	72.0	28.0	34.2	36.4	22.0	7.3
Vandalism.....	8,140	6,445	1,695	2,664	3,603	1,418	455	79.2	20.8	32.7	44.3	17.4	5.6
Trespassing.....	28,559	20,624	7,935	11,649	9,620	5,768	1,522	72.2	27.8	40.8	33.7	20.2	5.3
Weapons.....	5,842	5,127	715	1,888	2,649	913	392	87.8	12.2	32.3	45.3	15.6	6.7
Driving under the influence...	123,253	95,132	28,121	39,620	61,873	11,282	10,478	77.2	22.8	32.1	50.2	9.2	8.5
Hit-and-run.....	5,496	4,129	1,367	1,706	2,694	543	553	75.1	24.9	31.0	49.0	9.9	10.1
Selected traffic violations....	7,841	6,792	1,049	2,052	4,055	942	792	86.6	13.4	26.2	51.7	12.0	10.1
Gambling.....	349	237	112	66	110	77	96	67.9	32.1	18.9	31.5	22.1	27.5
All other.....	207,606	157,119	50,487	81,586	82,087	33,354	10,579	75.7	24.3	39.3	39.5	16.1	5.1

Note: Percentages may not add to 100.0 because of rounding.

Table 35  
**MISDEMEANOR ARRESTS, 2018**  
 Offense by Age Group of Arrestee

Offense	Number						Percent						
	Total	Under 18	18-19	20-29	30-39	40 and over	Total	Under 18	18-19	20-29	30-39	40 and over	
Total.....	784,245	24,223	23,810	251,332	218,853	266,027	100.0	3.1	3.0	32.0	27.9	33.9	
Assault and battery.....	82,057	8,049	3,060	25,963	21,444	23,541	100.0	9.8	3.7	31.6	26.1	28.7	
Burglary.....	14,420	924	848	4,888	3,830	3,930	100.0	6.4	5.9	33.9	26.6	27.3	
Petty theft.....	30,358	2,537	1,517	9,308	7,753	9,243	100.0	8.4	5.0	30.7	25.5	30.4	
Checks and access cards...	1,029	26	40	334	343	286	100.0	2.5	3.9	32.5	33.3	27.8	
Marijuana.....	3,835	1,389	455	1,006	505	480	100.0	36.2	11.9	26.2	13.2	12.5	
Other drug.....	187,871	1,100	3,380	59,248	61,771	62,372	100.0	0.6	1.8	31.5	32.9	33.2	
Indecent exposure.....	1,626	33	34	466	431	662	100.0	2.0	2.1	28.7	26.5	40.7	
Annoying children.....	502	67	38	123	94	180	100.0	13.3	7.6	24.5	18.7	35.9	
Obscene matter.....	82	35	2	12	6	27	100.0	42.7	2.4	14.6	7.3	32.9	
Lewd conduct.....	1,141	64	46	374	247	410	100.0	5.6	4.0	32.8	21.6	35.9	
Prostitution.....	6,079	8	618	3,196	1,126	1,131	100.0	0.1	10.2	52.6	18.5	18.6	
Drunk.....	58,697	524	1,513	17,553	15,127	23,980	100.0	0.9	2.6	29.9	25.8	40.9	
Liquor laws.....	5,986	934	1,411	1,519	526	1,596	100.0	15.6	23.6	25.4	8.8	26.7	
Disturbing the peace.....	3,476	1,007	113	785	585	986	100.0	29.0	3.3	22.6	16.8	28.4	
Vandalism.....	8,140	1,166	471	2,744	1,917	1,842	100.0	14.3	5.8	33.7	23.6	22.6	
Trespassing.....	28,559	705	745	7,339	8,159	11,611	100.0	2.5	2.6	25.7	28.6	40.7	
Weapons.....	5,842	1,138	369	1,933	1,238	1,164	100.0	19.5	6.3	33.1	21.2	19.9	
Driving under the influence.	123,253	446	3,275	51,186	32,490	35,856	100.0	0.4	2.7	41.5	26.4	29.1	
Hit-and-run.....	5,496	225	385	2,094	1,150	1,642	100.0	4.1	7.0	38.1	20.9	29.9	
Selected traffic violations....	7,841	239	923	3,337	1,682	1,660	100.0	3.0	11.8	42.6	21.5	21.2	
Gambling.....	349	8	10	81	91	159	100.0	2.3	2.9	23.2	26.1	45.6	
All other.....	207,606	3,599	4,557	57,843	58,338	83,269	100.0	1.7	2.2	27.9	28.1	40.1	

Note: Percentages may not add to 100.0 because of rounding.

Table 36  
**MISDEMEANOR ARRESTS, 2018**  
Offense by Gender, Race/Ethnic Group, and Age Group of Arrestee

Offense and age	Total		White		Hispanic		Black		Other	
	Total	Male	Total	Male	Total	Male	Total	Male	Total	Female
Total.....	784,245	590,475	193,770	301,682	321,796	257,419	64,377	111,999	48,758	12,189
Under 10.....	31	24	7	4	17	12	5	5	5	0
10-17.....	24,192	16,619	7,573	5,349	12,983	9,210	3,773	4,238	1,622	474
18-19.....	23,810	17,317	6,493	6,358	12,386	9,773	2,613	3,388	1,678	472
20-29.....	251,332	187,616	63,716	79,924	121,230	96,949	24,281	35,211	14,967	3,896
30-39.....	218,853	164,921	53,932	83,549	92,081	73,789	18,292	29,267	13,956	3,357
40-69.....	261,411	200,295	61,116	123,800	82,180	66,887	15,293	39,341	16,090	3,910
70 and over.....	4,616	3,683	933	2,708	919	799	120	549	440	80
Assault and battery.....	82,057	59,756	22,301	26,285	33,715	25,678	8,037	16,441	5,616	1,589
Under 10.....	8	7	1	2	4	4	0	0	2	0
10-17.....	8,041	5,090	2,951	1,663	4,259	2,774	1,485	1,692	427	284
18-19.....	3,060	2,210	850	628	1,626	1,233	393	634	172	137
20-29.....	25,963	18,977	6,986	6,595	12,290	9,484	2,806	5,511	1,567	502
30-39.....	21,444	15,917	5,527	7,104	8,793	6,893	1,900	3,959	1,588	445
40-69.....	22,927	17,071	5,856	9,942	6,650	5,220	1,430	4,567	1,768	454
70 and over.....	614	484	130	351	93	70	23	78	92	10
Burglary.....	14,420	8,550	5,870	5,443	4,857	2,967	1,890	3,180	940	412
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	924	497	427	206	432	248	184	214	72	34
18-19.....	848	467	381	205	334	189	145	122	61	30
20-29.....	4,888	2,974	1,914	1,760	1,771	1,139	632	1,101	248	100
30-39.....	3,830	2,285	1,545	1,604	1,319	809	510	673	234	92
40-69.....	3,868	2,291	1,577	1,635	992	576	416	934	307	145
70 and over.....	62	36	26	33	9	6	3	10	10	6
Petty theft.....	30,358	18,378	11,980	11,726	10,214	6,402	3,812	6,250	2,168	949
Under 10.....	1	1	0	0	0	0	0	1	0	0
10-17.....	2,536	1,489	1,047	508	1,240	741	499	598	190	75
18-19.....	1,517	803	714	357	649	374	275	358	153	74
20-29.....	9,308	5,647	3,661	3,178	3,475	2,301	1,174	2,058	597	335
30-39.....	7,753	4,698	3,055	3,325	2,548	1,594	954	1,338	542	223
40-69.....	9,064	5,625	3,439	4,259	2,271	1,372	899	1,876	658	300
70 and over.....	179	115	64	99	31	20	11	21	28	18
Identity theft.....	912	543	369	322	390	242	148	140	60	20
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	11	10	1	2	7	7	1	1	0	0
18-19.....	21	13	8	6	12	9	3	1	2	0
20-29.....	339	194	145	109	162	96	66	46	22	8
30-39.....	351	212	139	124	151	93	58	52	24	7
40-69.....	189	113	76	80	57	37	20	40	12	5
70 and over.....	1	1	0	1	0	0	0	0	0	0
Other petty theft.....	29,446	17,835	11,611	11,404	9,824	6,160	3,664	6,110	2,108	929
Under 10.....	1	1	0	0	0	0	0	1	0	0
10-17.....	2,525	1,479	1,046	506	1,232	734	498	597	190	75
18-19.....	1,496	790	706	351	637	365	272	357	151	72
20-29.....	8,969	5,453	3,516	3,069	3,313	2,205	1,108	2,012	575	321
30-39.....	7,402	4,486	2,916	3,201	2,397	1,501	896	1,286	518	254
40-69.....	8,875	5,512	3,363	4,179	2,214	1,335	879	1,836	646	295
70 and over.....	178	114	64	98	31	20	11	21	28	10

(continued)

Table 36 - continued  
**MISDEMEANOR ARRESTS, 2018**  
 Offense by Gender, Race/Ethnic Group, and Age Group of Arrestee

Offense and age	Total			White			Hispanic			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Checks and access cards.....	1,029	684	345	387	239	148	389	274	115	188	125	63	65	46	19
Under 10.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-17.....	26	20	6	4	3	1	14	10	4	8	7	1	0	0	0
18-19.....	40	29	11	14	11	3	13	9	4	11	8	3	2	1	1
20-29.....	334	218	116	108	67	41	143	96	47	63	40	23	20	15	5
30-39.....	343	231	112	133	83	50	136	100	36	52	33	19	22	15	7
40-69.....	284	185	99	127	75	52	83	59	24	54	37	17	20	14	6
70 and over.....	2	1	1	1	0	1	0	0	0	0	0	0	1	1	0
Drug offenses.....	191,706	148,418	43,288	84,511	60,702	23,809	76,568	62,743	13,825	20,781	17,180	3,601	9,846	7,793	2,053
Under 10.....	3	0	3	0	0	0	3	0	3	0	0	0	0	0	0
10-17.....	2,486	1,829	657	647	445	202	1,506	1,138	368	188	129	39	165	117	48
18-19.....	3,835	2,933	902	1,229	844	385	2,090	1,694	396	286	222	64	230	173	57
20-29.....	60,254	45,946	14,308	24,448	16,844	7,604	27,693	22,717	4,976	5,521	4,403	1,118	2,592	1,982	610
30-39.....	62,276	47,836	14,440	27,087	19,239	7,848	25,478	20,784	4,694	6,283	5,081	1,202	3,428	2,732	696
40-69.....	62,577	49,648	12,929	30,951	23,209	7,742	19,750	16,369	3,381	8,472	7,301	1,171	3,404	2,769	635
70 and over.....	275	226	49	149	121	28	48	41	7	51	44	7	27	20	7
Marijuana.....	3,835	3,039	796	1,007	773	234	1,771	1,369	402	529	472	57	528	425	103
Under 10.....	3	0	3	0	0	0	3	0	3	0	0	0	0	0	0
10-17.....	1,386	1,052	334	368	262	106	818	639	179	100	77	23	100	74	26
18-19.....	455	387	68	115	99	16	238	196	42	63	58	5	39	34	5
20-29.....	1,006	756	250	214	150	64	465	320	145	207	188	19	120	98	22
30-39.....	505	442	63	139	119	20	162	138	24	98	94	4	106	91	15
40-69.....	470	397	73	169	142	27	85	76	9	60	54	6	156	125	31
70 and over.....	10	5	5	2	1	1	0	0	0	1	1	0	7	3	4
Other drug.....	187,871	145,379	42,492	83,504	59,929	23,575	74,797	61,374	13,423	20,252	16,708	3,544	9,318	7,368	1,950
Under 10.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-17.....	1,100	777	323	279	183	96	688	499	189	68	52	16	65	43	22
18-19.....	3,380	2,546	834	1,114	745	369	1,852	1,498	354	223	164	59	191	139	52
20-29.....	59,248	45,190	14,058	24,234	16,694	7,540	27,228	22,397	4,831	5,314	4,215	1,099	2,472	1,894	588
30-39.....	61,771	47,394	14,377	26,948	19,120	7,828	25,316	20,646	4,670	6,185	4,987	1,198	3,322	2,641	681
40-69.....	62,107	49,251	12,856	30,782	23,067	7,715	19,665	16,293	3,372	8,412	7,247	1,165	3,248	2,644	604
70 and over.....	265	221	44	147	120	27	48	41	7	50	43	7	20	17	3
Indecent exposure.....	1,626	1,490	136	608	551	57	549	509	40	362	333	29	107	97	10
Under 10.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-17.....	33	31	2	10	10	0	16	14	2	6	6	0	1	1	0
18-19.....	34	28	6	7	6	1	18	18	0	8	4	4	1	0	1
20-29.....	466	431	35	132	123	9	194	183	11	123	109	14	17	16	1
30-39.....	431	389	42	140	121	19	153	145	8	99	92	7	34	31	3
40-69.....	627	578	49	299	273	26	153	139	14	124	120	4	51	46	5
70 and over.....	35	33	2	20	18	2	10	10	0	2	2	0	3	3	0
Annoying children.....	502	455	47	118	108	10	265	240	25	74	65	9	45	42	3
Under 10.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-17.....	67	45	22	11	7	4	41	26	15	14	11	3	1	1	0
18-19.....	38	33	5	7	5	2	23	22	1	6	5	1	2	1	1
20-29.....	123	113	10	21	21	0	64	56	8	25	23	2	13	13	0
30-39.....	94	89	5	25	23	2	51	50	1	9	8	1	9	8	1
40-69.....	172	167	5	49	47	2	84	84	0	20	18	2	19	18	1
70 and over.....	8	8	0	5	5	0	2	2	0	0	0	0	1	1	0

(continued)

Table 36 - continued  
**MISDEMEANOR ARRESTS, 2018**  
 Offense by Gender, Race/Ethnic Group, and Age Group of Arrestee

Offense and age	Total		White		Hispanic		Black		Other	
	Total	Male	Total	Male	Total	Male	Total	Male	Total	Male
Obscene matter.....	82	69	13	Female	4	33	27	3	0	11
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	35	23	12	5	4	20	15	1	1	5
18-19.....	2	2	0	1	1	1	0	0	0	0
20-29.....	12	12	0	3	0	5	0	1	0	3
30-39.....	6	5	1	3	0	2	1	0	0	0
40-69.....	25	25	0	17	0	4	4	1	0	3
70 and over.....	2	2	0	2	0	0	0	0	0	0
Lewd conduct.....	1,141	916	225	348	280	68	397	163	84	92
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	64	50	14	14	11	3	25	18	7	8
18-19.....	46	31	15	10	8	2	17	13	4	2
20-29.....	374	266	108	99	70	29	148	128	20	16
30-39.....	247	213	34	63	53	10	112	102	10	22
40-69.....	402	349	53	159	136	23	148	132	16	37
70 and over.....	8	7	1	3	2	1	4	0	0	1
Prostitution.....	6,079	1,948	4,131	880	270	610	1,159	252	2,506	725
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	8	0	8	1	0	1	0	0	6	1
18-19.....	618	42	576	98	3	95	28	6	367	5
20-29.....	3,196	635	2,561	374	43	331	727	402	325	189
30-39.....	1,126	615	511	171	69	102	482	396	86	165
40-69.....	1,114	640	474	230	149	81	378	327	51	342
70 and over.....	17	16	1	6	6	0	6	1	0	4
Drunk.....	58,697	47,275	11,422	26,895	20,682	6,213	22,601	19,066	3,535	5,726
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	524	347	177	146	98	48	322	213	109	14
18-19.....	1,513	1,203	310	510	379	131	819	683	136	89
20-29.....	17,553	14,060	3,493	6,082	4,661	1,421	8,716	7,226	1,490	1,648
30-39.....	15,127	12,346	2,781	6,280	4,816	1,464	6,110	5,245	865	1,724
40-69.....	23,638	19,011	4,627	13,669	10,542	3,127	6,553	5,626	927	2,210
70 and over.....	342	308	34	208	186	22	81	73	8	29
Liquor laws.....	5,986	4,427	1,559	2,035	1,418	617	2,477	1,909	568	928
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	934	594	340	303	175	128	537	362	175	33
18-19.....	1,411	1,017	394	652	451	201	547	420	127	65
20-29.....	1,519	1,096	423	558	377	181	633	490	143	141
30-39.....	526	425	101	141	111	30	246	201	45	100
40-69.....	1,559	1,268	291	374	298	76	503	425	78	576
70 and over.....	37	27	10	7	6	1	11	11	0	13
Disorderly conduct.....	7,294	5,126	2,168	4,073	2,782	1,291	1,744	1,278	466	1,143
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	88	77	11	21	20	1	41	38	3	15
18-19.....	113	83	30	40	29	11	38	29	9	21
20-29.....	1,316	908	408	614	430	184	377	275	102	284
30-39.....	1,833	1,276	557	986	637	349	494	376	118	266
40-69.....	3,883	2,727	1,156	2,381	1,638	743	784	551	233	546
70 and over.....	61	55	6	31	28	3	10	9	1	11

(continued)



Table 36 - continued  
**MISDEMEANOR ARRESTS, 2018**  
 Offense by Gender, Race/Ethnic Group, and Age Group of Arrestee

Offense and age	Total		White		Hispanic		Black		Other	
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Disturbing the peace.....	3,476	2,504	972	1,190	867	323	1,267	927	340	764
Under 10.....	3	3	0	0	0	0	1	1	0	1
10-17.....	1,004	659	345	185	126	59	474	332	142	284
18-19.....	113	84	29	20	18	2	39	29	10	44
20-29.....	785	641	144	213	172	41	345	286	59	162
30-39.....	585	455	130	208	167	41	198	143	55	129
40-69.....	929	637	292	513	363	150	207	133	74	144
70 and over.....	57	25	32	51	21	30	3	3	0	0
Vandalism.....	8,140	6,445	1,695	2,664	2,068	596	3,603	3,011	592	1,418
Under 10.....	3	3	0	0	0	0	3	3	0	0
10-17.....	1,163	952	211	278	220	58	650	555	95	183
18-19.....	471	395	76	91	73	18	284	259	25	67
20-29.....	2,744	2,214	530	735	597	138	1,400	1,189	211	476
30-39.....	1,917	1,480	437	679	511	168	759	609	150	361
40-69.....	1,804	1,375	429	858	651	207	501	392	109	325
70 and over.....	38	26	12	23	16	7	6	4	2	6
Trespassing.....	28,559	20,624	7,935	11,649	7,924	3,725	9,620	7,175	2,445	5,768
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	705	555	150	149	120	29	377	296	81	136
18-19.....	745	527	218	211	138	73	358	257	101	149
20-29.....	7,339	5,417	1,922	2,374	1,697	677	3,012	2,255	757	1,632
30-39.....	8,159	5,757	2,402	3,152	2,034	1,118	2,857	2,082	775	1,719
40-69.....	11,378	8,194	3,184	5,632	3,837	1,795	2,966	2,245	721	2,109
70 and over.....	233	174	59	131	98	33	50	40	10	23
Weapons.....	5,842	5,127	715	1,888	1,615	273	2,649	2,372	277	913
Under 10.....	3	2	1	0	0	0	1	0	1	2
10-17.....	1,135	1,001	134	242	210	32	667	594	73	146
18-19.....	369	326	43	71	59	12	203	184	19	67
20-29.....	1,933	1,717	216	515	440	75	962	874	88	342
30-39.....	1,238	1,068	170	512	435	77	474	419	55	167
40-69.....	1,147	996	151	544	467	77	341	300	41	182
70 and over.....	17	17	0	4	4	0	1	1	0	7
Driving under the influence.....	123,253	95,132	28,121	39,620	27,507	12,113	61,873	51,156	10,717	11,282
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	446	345	101	124	87	37	265	216	49	16
18-19.....	3,275	2,587	688	841	604	237	2,037	1,697	340	152
20-29.....	51,186	38,960	12,226	13,546	9,406	4,140	28,981	23,271	5,710	4,085
30-39.....	32,490	25,435	7,055	9,618	6,754	2,864	16,717	14,023	2,694	3,230
40-69.....	34,726	26,929	7,797	14,706	10,084	4,622	13,687	11,779	1,908	3,702
70 and over.....	1,130	876	254	785	572	213	186	170	16	97
Glue sniffing.....	1,474	1,191	283	325	217	108	960	829	131	127
Under 10.....	0	0	0	0	0	0	0	0	0	0
10-17.....	38	30	8	2	2	0	35	27	8	1
18-19.....	162	135	27	6	6	0	141	118	23	5
20-29.....	578	460	118	98	66	32	340	240	67	46
30-39.....	344	260	84	104	51	53	194	170	32	39
40-69.....	349	304	45	114	92	22	181	172	9	36
70 and over.....	3	2	1	1	0	1	2	2	0	0

(continued)

Table 36 - continued

Offense and age	Total			White		Hispanic		Black		Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Hit-and-run.....	5,496	4,129	1,367	1,706	1,217	489	2,694	2,130	564	543	372	171
Under 10.....	1	0	1	0	0	0	0	0	0	1	0	1
10-17.....	224	170	54	45	31	14	135	107	28	24	19	5
18-19.....	385	294	91	80	63	17	231	183	48	41	25	16
20-29.....	2,094	1,582	512	499	356	143	1,158	924	234	245	161	84
30-39.....	1,150	853	297	387	274	113	569	437	132	89	62	27
40-69.....	1,485	1,114	371	597	425	172	569	452	117	141	103	38
70 and over.....	157	116	41	98	68	30	32	27	5	2	2	0
Selected traffic violations.....	7,841	6,792	1,049	2,052	1,736	316	4,055	3,586	469	942	776	166
Under 10.....	0	0	0	0	0	0	0	0	0	0	0	0
10-17.....	239	219	20	86	79	7	110	102	8	12	8	4
18-19.....	923	883	40	229	215	14	530	514	16	46	41	5
20-29.....	3,337	3,006	331	723	649	74	1,923	1,762	161	369	304	65
30-39.....	1,682	1,372	310	437	358	79	834	681	153	258	210	48
40-69.....	1,634	1,287	347	568	426	142	648	517	131	254	211	43
70 and over.....	26	25	1	9	9	0	10	10	0	3	2	1
Gambling.....	349	237	112	66	36	30	110	69	41	77	65	12
Under 10.....	0	0	0	0	0	0	0	0	0	0	0	0
10-17.....	8	8	0	0	0	0	1	1	0	6	6	0
18-19.....	10	7	3	3	1	2	3	3	0	3	2	1
20-29.....	81	52	29	18	7	11	23	17	6	27	20	7
30-39.....	91	63	28	21	14	7	32	17	15	16	15	1
40-69.....	158	106	52	24	14	10	50	30	20	25	22	3
70 and over.....	1	1	0	0	0	0	1	1	0	0	0	0
Cruelty to animals.....	51	37	14	26	19	7	13	10	3	5	3	2
Under 10.....	0	0	0	0	0	0	0	0	0	0	0	0
10-17.....	5	5	0	2	2	0	2	2	0	0	0	1
18-19.....	2	2	0	1	1	0	1	1	0	0	0	0
20-29.....	11	5	6	7	4	3	1	0	1	2	1	1
30-39.....	10	6	4	2	1	1	3	2	1	2	1	1
40-69.....	21	17	4	12	9	3	6	5	1	1	1	0
70 and over.....	2	2	0	2	2	0	0	0	0	0	0	0
Nonsupport.....	60	21	39	12	4	8	30	10	20	17	7	10
Under 10.....	0	0	0	0	0	0	0	0	0	0	0	0
10-17.....	1	1	0	0	0	0	0	0	0	1	1	0
18-19.....	0	0	0	0	0	0	0	0	0	0	0	0
20-29.....	13	0	13	2	0	2	8	0	8	3	0	3
30-39.....	25	8	17	7	1	6	12	4	8	6	3	3
40-69.....	21	12	9	3	3	0	10	6	4	7	3	4
70 and over.....	0	0	0	0	0	0	0	0	0	0	0	0
All other.....	198,727	150,744	47,983	77,150	54,983	22,167	79,340	63,495	15,845	32,062	24,580	7,482
Under 10.....	9	8	1	2	2	0	5	4	1	0	0	0
10-17.....	3,458	2,582	876	693	492	201	1,814	1,381	433	631	463	168
18-19.....	4,280	3,196	1,084	1,047	714	333	2,261	1,815	446	698	458	240
20-29.....	55,925	42,279	13,646	17,222	12,085	5,137	26,774	21,529	5,245	9,335	6,705	2,630
30-39.....	56,126	41,839	14,287	21,360	14,773	6,587	23,502	18,503	4,997	8,390	6,418	1,972
40-69.....	77,619	59,739	17,880	36,137	26,357	9,780	24,661	19,972	4,689	12,813	10,369	2,444
70 and over.....	1,310	1,101	209	689	560	129	323	289	34	195	167	28

Table 37  
**DISPOSITIONS OF ADULT FELONY ARRESTS, 1982-2018**  
 By Type of Disposition

Year(s)	Total		Law enforcement releases		Prosecution rejections and resolutions <sup>1</sup>		Court dispositions			
							Dismissed, acquitted <sup>2</sup>		Convicted	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2018.....	215,283	100.0	6,524	3.0	40,099	18.6	27,154	12.6	141,506	65.7
2017.....	218,933	100.0	7,910	3.6	39,815	18.2	26,678	12.2	144,530	66.0
2016.....	207,022	100.0	7,058	3.4	36,588	17.7	25,961	12.5	137,415	66.4
2015.....	242,460	100.0	7,537	3.1	38,733	16.0	33,908	14.0	162,282	66.9
2014 <sup>a</sup> .....	315,782	100.0	10,227	3.2	48,235	15.3	39,632	12.6	217,688	68.9
2013.....	305,503	100.0	10,525	3.4	45,273	14.8	36,315	11.9	213,390	69.8
2012.....	295,465	100.0	9,572	3.2	48,029	16.3	35,451	12.0	202,413	68.5
2011.....	292,231	100.0	9,780	3.3	45,988	15.7	40,642	13.9	195,821	67.0
2010.....	298,647	100.0	9,980	3.3	46,054	15.4	40,793	13.7	201,820	67.6
2009.....	306,170	100.0	9,894	3.2	43,317	14.1	45,000	14.7	207,959	67.9
2008.....	325,241	100.0	9,435	2.9	41,610	12.8	46,485	14.3	227,711	70.0
2007.....	332,647	100.0	10,273	3.1	42,632	12.8	48,728	14.6	231,014	69.4
2006.....	319,818	100.0	9,107	2.8	42,506	13.3	46,456	14.5	221,749	69.3
2005.....	319,587	100.0	10,114	3.2	39,034	12.2	43,638	13.7	226,801	71.0
2004.....	345,415	100.0	10,721	3.1	43,179	12.5	48,150	13.9	243,365	70.5
2003.....	316,377	100.0	10,352	3.3	42,922	13.6	45,775	14.5	217,328	68.7
2002.....	287,499	100.0	11,195	3.9	39,833	13.9	41,020	14.3	195,451	68.0
2001.....	271,992	100.0	11,248	4.1	39,414	14.5	37,703	13.9	183,627	67.5
2000.....	267,512	100.0	7,698	2.9	37,152	13.9	36,576	13.7	186,086	69.6
1999.....	278,715	100.0	9,616	3.5	40,217	14.4	36,004	12.9	192,878	69.2
1998.....	314,483	100.0	13,880	4.4	42,763	13.6	39,866	12.7	217,974	69.3
1997.....	326,768	100.0	14,289	4.4	47,829	14.6	42,842	13.1	221,808	67.9
1996.....	328,168	100.0	12,802	3.9	47,941	14.6	43,566	13.3	223,859	68.2
1995.....	345,125	100.0	15,100	4.4	45,877	13.3	45,838	13.3	238,310	69.1
1994.....	342,321	100.0	16,713	4.9	44,791	13.1	45,108	13.2	235,709	68.9
1993.....	345,469	100.0	16,464	4.8	44,512	12.9	43,157	12.5	241,336	69.9
1992.....	284,810	100.0	12,273	4.3	32,284	11.3	40,134	14.1	200,119	70.3
1991.....	303,707	100.0	20,222	6.7	45,756	15.1	42,002	13.8	195,727	64.4
1990.....	258,734	100.0	15,444	6.0	33,503	12.9	40,444	15.6	169,343	65.5
1989.....	275,151	100.0	20,773	7.5	45,682	16.6	41,069	14.9	167,627	60.9
1988.....	265,990	100.0	19,230	7.2	51,222	19.3	41,867	15.7	153,671	57.8
1987.....	270,496	100.0	21,019	7.8	52,464	19.4	43,413	16.0	153,600	56.8
1986.....	258,832	100.0	22,773	8.8	47,807	18.5	39,962	15.4	148,290	57.3
1985.....	240,978	100.0	23,003	9.5	39,732	16.5	37,710	15.6	140,533	58.3
1984.....	210,398	100.0	20,180	9.6	35,498	16.9	34,453	16.4	120,267	57.2
1983.....	201,158	100.0	19,006	9.4	37,215	18.5	33,284	16.5	111,653	55.5
1982.....	203,805	100.0	20,895	10.3	37,010	18.2	34,457	16.9	111,443	54.7

Source: Data extracted from the California Department of Justice Criminal History System. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

Notes: This table presents the number and type of final dispositions and sentences for felony arrests reported to the California Department of Justice by law enforcement agencies, district attorneys, and courts. Caution should be used when interpreting this information because arrests and dispositions are underreported. It should also be noted that approximately 1.3% of the adult felony convictions contained in this data represent a disposition that the California Department of Justice was unable to positively link to a criminal record; accordingly, an arrest event was created based solely upon the disposition information provided. There is no way for the California Department of Justice to estimate the exact percentage of underreported dispositions. The nature, extent, and reasons for this underreporting vary from agency to agency and from year to year.

Percentages may not add to subtotals or 100.0 because of rounding.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. Caution should be used when comparing felony arrest disposition data to prior years.

<sup>1</sup> The "prosecution rejections and resolutions" category includes single complaints, combined cases, and petitions to revoke probation.

<sup>2</sup> The "dismissed, acquitted" category includes diversions that have been dismissed.

Table 38A  
**DISPOSITIONS OF ADULT FELONY ARRESTS, 2013-2018**  
 By Type of Disposition and Sentence

Type of disposition and sentence	2013		2014 <sup>a</sup>		2015		2016		2017		2018	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	305,503	100.0	315,782	100.0	242,460	100.0	207,022	100.0	218,933	100.0	215,283	100.0
Law enforcement releases (PC 849(b)).....	10,525	3.4	10,227	3.2	7,537	3.1	7,058	3.4	7,910	3.6	6,524	3.0
Complainant refuses to prosecute.....	37	0.0	53	0.0	50	0.0	42	0.0	57	0.0	36	0.0
Arrestee exonerated.....	65	0.0	79	0.0	62	0.0	31	0.0	44	0.0	38	0.0
Further investigation.....	483	0.2	354	0.1	179	0.1	335	0.2	328	0.1	303	0.1
Admissible evidence insufficient.....	497	0.2	602	0.2	524	0.2	561	0.3	648	0.3	534	0.2
Ascertained evidence insufficient.....	282	0.1	264	0.1	283	0.1	607	0.3	665	0.3	270	0.1
Other <sup>1</sup> .....	9,150	3.0	8,865	2.8	6,420	2.6	5,472	2.6	6,156	2.8	5,334	2.5
Unspecified.....	11	0.0	10	0.0	19	0.0	10	0.0	12	0.0	9	0.0
Prosecution rejections and resolutions.....	45,273	14.8	48,235	15.3	38,733	16.0	36,588	17.7	39,815	18.2	40,099	18.6
Lack of corpus.....	775	0.3	881	0.3	698	0.3	471	0.2	490	0.2	421	0.2
Lack of sufficient evidence.....	26,093	8.5	27,475	8.7	22,742	9.4	21,973	10.6	24,140	11.0	24,200	11.2
Inadmissible search and seizure.....	1,231	0.4	1,426	0.5	612	0.3	542	0.3	474	0.2	632	0.3
Victim unavailable/ decline to testify.....	1,909	0.6	1,894	0.6	1,662	0.7	1,468	0.7	1,718	0.8	1,640	0.8
Witness unavailable/ decline to testify.....	182	0.1	218	0.1	161	0.1	197	0.1	184	0.1	115	0.1
Combined with other courts/cases.....	385	0.1	463	0.1	623	0.3	417	0.2	491	0.2	389	0.2
Interest of justice.....	3,035	1.0	3,254	1.0	2,508	1.0	2,424	1.2	2,811	1.3	3,299	1.5
Deferred to revocation of parole.....	809	0.3	395	0.1	204	0.1	175	0.1	164	0.1	153	0.1
Prosecutor preflight deferral/diversion.....	960	0.3	710	0.2	451	0.2	542	0.3	644	0.3	578	0.3
Probation revocation in lieu of filing.....	1,385	0.5	1,573	0.5	773	0.3	557	0.3	366	0.2	266	0.1
Other <sup>2</sup> .....	8,509	2.8	9,946	3.1	8,299	3.4	7,822	3.8	8,333	3.8	8,406	3.9
Court dispositions.....	249,705	81.7	257,320	81.5	196,190	80.9	163,376	78.9	171,208	78.2	168,660	78.3
Dismissed.....	33,344	10.9	36,953	11.7	30,657	12.6	24,165	11.7	25,381	11.6	26,143	12.1
Divisions dismissed.....	2,460	0.8	2,294	0.7	2,686	1.1	1,309	0.6	806	0.4	500	0.2
Acquitted.....	511	0.2	385	0.1	565	0.2	487	0.2	491	0.2	511	0.2
Convicted.....	213,390	69.8	217,688	68.9	162,282	66.9	137,415	66.4	144,530	66.0	141,506	65.7
Sentence												
Death.....	24	0.0	13	0.0	14	0.0	9	0.0	11	0.0	5	0.0
State institutions <sup>3</sup> .....	31,962	10.5	32,212	10.2	27,711	11.4	25,434	12.3	28,333	12.9	28,414	13.2
Probation.....	32,998	10.8	31,812	10.1	15,616	6.4	11,848	5.7	11,465	5.2	10,656	4.9
Probation with jail.....	117,864	38.6	121,171	38.4	95,314	39.3	78,273	37.8	80,995	37.0	80,929	37.6
Jail.....	23,577	7.7	26,196	8.3	19,306	8.0	17,413	8.4	18,633	8.5	17,931	8.3
Fine.....	2,221	0.7	2,382	0.8	1,720	0.7	1,410	0.7	1,421	0.6	1,320	0.6
Other <sup>4</sup> .....	4,744	1.6	3,902	1.2	2,601	1.1	3,028	1.5	3,672	1.7	2,251	1.0

Source: Data extracted from the California Department of Justice Criminal History System. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

Notes: This table presents the number and type of final dispositions and sentences for felony arrests reported to the California Department of Justice by law enforcement agencies, district attorneys, and courts. Caution should be used when interpreting this information because arrests and dispositions are underreported. It should also be noted that approximately 1.3% of the adult felony convictions contained in this data represent a disposition that the California Department of Justice was unable to positively link to a criminal record; accordingly, an arrest event was created based solely upon the disposition information provided. There is no way for the California Department of Justice to estimate the exact percentage of underreported dispositions. The nature, extent, and reasons for this underreporting vary from agency to agency and from year to year.

Percentages may not add to subtotals or 100.0 because of rounding.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. Caution should be used when comparing felony arrest disposition data to prior years.

<sup>1</sup> The "other" category includes release due to delay, subject reported deceased, handled administratively, Penal Code section 849(b)(2) - intoxication only, and Penal Code section 849(b)(3) - under the influence of a controlled substance and delivered to a treatment facility.

<sup>2</sup> The "other" category includes rejection due to continuing investigations and due process or jurisdictional considerations.

<sup>3</sup> The "state institutions" category includes sentences to prison, California Rehabilitation Center, and the Division of Juvenile Justice (youth authority).

<sup>4</sup> The "other" category includes no sentence given, sentence suspended, and sentence stayed.

Table 38B  
**DISPOSITIONS OF ADULT FELONY ARRESTS, 2013-2018**  
 By Type of Disposition and Sentence  
 Percent Distribution of Court Dispositions

Type of disposition and sentence	2013		2014 <sup>a</sup>		2015		2016		2017		2018	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	305,503		315,782		242,460		207,022		218,933		215,283	
Law enforcement releases (PC 849(b)).....	10,525		10,227		7,537		7,058		7,910		6,524	
Complainant refuses to prosecute.....	37		53		50		42		57		36	
Arrestee exonerated.....	65		79		62		31		44		38	
Further investigation.....	483		354		179		335		328		303	
Admissible evidence insufficient.....	497		602		524		561		648		534	
Ascertained evidence insufficient.....	282		264		283		607		665		270	
Other <sup>1</sup> .....	9,150		8,865		6,420		5,472		6,156		5,334	
Unspecified.....	11		10		19		10		12		9	
Prosecution rejections and resolutions.....	45,273		48,235		38,733		36,588		39,815		40,099	
Lack of corpus.....	775		881		698		471		490		421	
Lack of sufficient evidence.....	26,093		27,475		22,742		21,973		24,140		24,200	
Inadmissible search and seizure.....	1,231		1,426		612		542		474		632	
Victim unavailable/ decline to testify.....	1,909		1,894		1,662		1,468		1,718		1,640	
Witness unavailable/ decline to testify.....	182		218		161		197		184		115	
Combined with other counts/cases.....	385		463		623		417		491		389	
Interest of justice.....	3,035		3,254		2,508		2,424		2,811		3,299	
Deferred to revocation of parole.....	809		395		204		175		164		153	
Prosecutor prefiles deferral/diversion.....	960		710		451		542		644		578	
Probation revocation in lieu of filing.....	1,385		1,573		773		557		366		266	
Other <sup>2</sup> .....	8,509		9,946		8,299		7,822		8,333		8,406	
Court dispositions.....	249,705	100.0	257,320	100.0	196,190	100.0	163,376	100.0	171,208	100.0	168,660	100.0
Dismissed.....	33,344	13.4	36,953	14.4	30,657	15.6	24,165	14.8	25,381	14.8	26,143	15.5
Diversions dismissed.....	2,460	1.0	2,294	0.9	2,686	1.4	1,309	0.8	806	0.5	500	0.3
Acquitted.....	511	0.2	385	0.1	565	0.3	487	0.3	491	0.3	511	0.3
Convicted.....	213,390	85.5	217,688	84.6	162,282	82.7	137,415	84.1	144,530	84.4	141,506	83.9
Sentence												
Death.....	24	0.0	13	0.0	14	0.0	9	0.0	11	0.0	5	0.0
State institutions <sup>3</sup> .....	31,962	12.8	32,212	12.5	27,711	14.1	25,434	15.6	28,333	16.5	28,414	16.8
Probation.....	32,998	13.2	31,812	12.4	15,616	8.0	11,848	7.3	11,465	6.7	10,656	6.3
Probation with jail.....	117,864	47.2	121,171	47.1	95,314	48.6	78,273	47.9	80,995	47.3	80,929	48.0
Jail.....	23,577	9.4	26,196	10.2	19,306	9.8	17,413	10.7	18,633	10.9	17,931	10.6
Fine.....	2,221	0.9	2,382	0.9	1,720	0.9	1,410	0.9	1,421	0.8	1,320	0.8
Other <sup>4</sup> .....	4,744	1.9	3,902	1.5	2,601	1.3	3,028	1.9	3,672	2.1	2,251	1.3

Source: Data extracted from the California Department of Justice Criminal History System. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

Notes: This table presents the number and type of final dispositions and sentences for felony arrests reported to the California Department of Justice by law enforcement agencies, district attorneys, and courts. Caution should be used when interpreting this information because arrests and dispositions are underreported. It should also be noted that approximately 1.3% of the adult felony convictions contained in this data represent a disposition that the California Department of Justice was unable to positively link to a criminal record; accordingly, an arrest event was created solely upon the disposition information provided. There is no way for the California Department of Justice to estimate the exact percentage of underreported dispositions. The nature, extent, and reasons for this underreporting vary from agency to agency and from year to year.

Percentages may not add to subtotals or 100.0 because of rounding.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. Caution should be used when comparing felony arrest disposition data to prior years.

<sup>1</sup> The "other" category includes release due to delay, subject reported deceased, handled administratively, Penal Code section 849(b)(2) - intoxication only, and Penal Code section 849(b)(3) - under the influence of a controlled substance and delivered to a treatment facility.

<sup>2</sup> The "other" category includes rejection due to continuing investigations and due process or jurisdictional considerations.

<sup>3</sup> The "state institutions" category includes sentences to prison, California Rehabilitation Center, and the Division of Juvenile Justice (youth authority).

<sup>4</sup> The "other" category includes no sentence given, sentence suspended, and sentence stayed.

Table 39  
**DISPOSITIONS OF ADULT FELONY ARRESTS, 2018**  
 Arrest Offense Category by Type of Disposition

Type of disposition	Total		Violent offenses <sup>1</sup>		Property offenses <sup>2</sup>		Drug offenses		All other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	215,283	100.0	81,294	100.0	58,104	100.0	26,436	100.0	49,449	100.0
Law enforcement releases.....	6,524	3.0	3,007	3.7	1,673	2.9	895	3.4	949	1.9
Prosecution rejections and resolutions <sup>3</sup> .....	40,099	18.6	23,179	28.5	7,225	12.4	2,489	9.4	7,206	14.6
Dismissed, acquitted <sup>4</sup> .....	27,154	12.6	8,909	11.0	6,508	11.2	5,185	19.6	6,552	13.3
Convicted.....	141,506	65.7	46,199	56.8	42,698	73.5	17,867	67.6	34,742	70.3

Source: Data extracted from the California Department of Justice Criminal History System. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

Notes: This table presents the number and type of final dispositions and sentences for felony arrests reported to the California Department of Justice by law enforcement agencies, district attorneys, and courts. Caution should be used when interpreting this information because arrests and dispositions are underreported.

It should also be noted that approximately 1.3% of the adult felony convictions contained in this data represent a disposition that the California Department of Justice was unable to positively link to a criminal record; accordingly, an arrest event was created based solely upon the disposition information provided. There is no way for the California Department of Justice to estimate the exact percentage of underreported dispositions. The nature, extent, and reasons for this underreporting vary from agency to agency and from year to year.

Percentages may not add to subtotals or 100.0 because of rounding.

<sup>1</sup> Violent offenses include homicide, rape, robbery, assault, and kidnapping.

<sup>2</sup> Property offenses include burglary; theft; motor vehicle theft; forgery, check, and access card offenses; and arson.

<sup>3</sup> The "prosecution rejections and resolutions" category includes single complaints, combined cases, and petitions to revoke probation.

<sup>4</sup> The "dismissed, acquitted" category includes diversions that have been dismissed.



Table 40  
**ADULT FELONY ARRESTEES CONVICTED, 2013-2018**  
By Convicted Offense Category and Type of Sentence

Convicted offense category and type of sentence	2013		2014 <sup>a</sup>		2015		2016		2017		2018	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total convictions.....	213,390	100.0	217,688	100.0	Total		162,282		100.0		144,530	
	Type of sentence											
State institutions <sup>1</sup> .....	31,986	15.0	32,225	14.8	27,725	17.1	25,443	18.5	28,344	19.6	28,419	20.1
Probation <sup>2</sup> .....	39,963	18.7	38,096	17.5	19,937	12.3	16,286	11.9	16,558	11.5	14,227	10.1
Probation with jail.....	117,864	55.2	121,171	55.7	95,314	58.7	78,273	57.0	80,995	56.0	80,929	57.2
Jail.....	23,577	11.0	26,196	12.0	19,306	11.9	17,413	12.7	18,633	12.9	17,931	12.7
	Convicted offense category and type of sentence											
Violent offenses <sup>3</sup> .....	38,034	100.0	38,943	100.0	39,470	100.0	34,721	100.0	37,020	100.0	37,647	100.0
State institutions <sup>1</sup> .....	9,237	24.3	9,576	24.6	9,728	24.6	8,847	25.5	9,560	25.8	9,770	26.0
Probation <sup>2</sup> .....	3,087	8.1	2,717	7.0	3,004	7.6	2,974	8.6	3,127	8.4	2,906	7.7
Probation with jail.....	23,555	61.9	24,031	61.7	24,354	61.7	20,539	59.2	21,800	58.9	22,436	59.6
Jail.....	2,155	5.7	2,619	6.7	2,384	6.0	2,361	6.8	2,533	6.8	2,535	6.7
Property offenses <sup>4</sup> .....	55,342	100.0	53,337	100.0	37,154	100.0	33,095	100.0	35,011	100.0	34,087	100.0
State institutions <sup>1</sup> .....	7,312	13.2	7,008	13.1	5,459	14.7	5,231	15.8	5,825	16.6	5,566	16.3
Probation <sup>2</sup> .....	5,500	9.9	4,598	8.6	3,437	9.3	3,150	9.5	3,494	10.0	3,000	8.8
Probation with jail.....	34,583	62.5	33,663	63.1	23,021	62.0	19,922	60.2	20,717	59.2	20,542	60.3
Jail.....	7,947	14.4	8,068	15.1	5,237	14.1	4,792	14.5	4,975	14.2	4,979	14.6
Drug offenses.....	64,249	100.0	67,699	100.0	32,121	100.0	22,518	100.0	21,053	100.0	17,923	100.0
State institutions <sup>1</sup> .....	5,641	8.8	5,596	8.3	2,680	8.3	2,304	10.2	2,419	11.5	2,329	13.0
Probation <sup>2</sup> .....	22,713	35.4	22,443	33.2	5,882	18.3	3,658	16.2	3,253	15.5	2,396	13.4
Probation with jail.....	28,111	43.8	30,647	45.3	17,278	53.8	11,558	51.3	10,019	47.6	8,577	47.9
Jail.....	7,784	12.1	9,013	13.3	6,281	19.6	4,998	22.2	5,362	25.5	4,621	25.8
All other offenses.....	55,765	100.0	57,709	100.0	53,537	100.0	47,081	100.0	51,446	100.0	51,849	100.0
State institutions <sup>1</sup> .....	9,796	17.6	10,045	17.4	9,858	18.4	9,061	19.2	10,540	20.5	10,754	20.7
Probation <sup>2</sup> .....	8,663	15.5	8,338	14.4	7,614	14.2	6,504	13.8	6,684	13.0	5,925	11.4
Probation with jail.....	31,615	56.7	32,830	56.9	30,661	57.3	26,254	55.8	28,459	55.3	29,374	56.7
Jail.....	5,691	10.2	6,496	11.3	5,404	10.1	5,262	11.2	5,763	11.2	5,796	11.2

Source: Data extracted from the California Department of Justice Criminal History System. For additional information, see Appendix 1, Data Characteristics and Known Limitations.

Notes: This table presents the number and type of final dispositions and sentences for felony arrests reported to the California Department of Justice by law enforcement agencies, district attorneys, and courts. Caution should be used when interpreting this information because arrests and dispositions are underreported. It should also be noted that approximately 1.3% of the adult felony convictions contained in this data represent a disposition that the California Department of Justice was unable to positively link to a criminal record; accordingly, an arrest event was created based solely upon the disposition information provided. There is no way for the California Department of Justice to estimate the exact percentage of underreported dispositions. The nature, extent, and reasons for this underreporting vary from agency to agency and from year to year.

Data include convictions for both misdemeanors and felonies.

Percentages may not add to subtotals or 100.0 because of rounding.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced some felony offenses to misdemeanors. Caution should be used when comparing felony arrest disposition data to prior years.

<sup>1</sup> The "state institutions" category includes sentences to death, prison, California Rehabilitation Center (civil addict), and the Division of Juvenile Justice (youth authority).

<sup>2</sup> The "probation" category includes straight probation, fine, and other (no sentence given, sentence suspended, and sentence stayed).

<sup>3</sup> Violent offenses include homicide, rape, robbery, assault, and kidnapping.

<sup>4</sup> Property offenses include burglary, theft, motor vehicle theft, forgery, check, and access card offenses; and arson.

Table 41  
**ADULTS ON ACTIVE PROBATION AS OF DECEMBER 31, 1966-2018**  
 By Level of Offense

Year(s)	Total		Felony offense		Misdemeanor offense	
	Number	Percent	Number	Percent	Number	Percent
2018 <sup>a</sup> .....	209,763	100.0	166,745	79.5	43,018	20.5
2017.....	233,046	100.0	183,623	78.8	49,423	21.2
2016 <sup>b</sup> .....	239,735	100.0	190,686	79.5	49,049	20.5
2015.....	263,531	100.0	221,243	84.0	42,288	16.0
2014 <sup>c,d</sup> .....	285,681	100.0	244,122	85.5	41,559	14.5
2013.....	296,964	100.0	254,106	85.6	42,858	14.4
2012.....	294,993	100.0	249,173	84.5	45,820	15.5
2011.....	297,917	100.0	247,770	83.2	50,147	16.8
2010.....	311,692	100.0	255,006	81.8	56,686	18.2
2009.....	331,270	100.0	266,249	80.4	65,021	19.6
2008.....	341,584	100.0	269,023	78.8	72,561	21.2
2007.....	347,199	100.0	269,384	77.6	77,815	22.4
2006.....	346,495	100.0	268,828	77.6	77,667	22.4
2005.....	344,442	100.0	263,911	76.6	80,531	23.4
2004.....	341,214	100.0	257,043	75.3	84,171	24.7
2003.....	352,449	100.0	252,530	71.7	99,919	28.3
2002.....	336,740	100.0	239,618	71.2	97,122	28.8
2001.....	328,540	100.0	235,951	71.8	92,589	28.2
2000.....	333,288	100.0	238,520	71.6	94,768	28.4
1999.....	338,785	100.0	244,460	72.2	94,325	27.8
1998.....	330,945	100.0	233,625	70.6	97,320	29.4
1997.....	302,236	100.0	210,960	69.8	91,276	30.2
1996.....	289,503	100.0	197,862	68.3	91,641	31.7
1995.....	286,986	100.0	193,389	67.4	93,597	32.6
1994.....	285,105	100.0	186,701	65.5	98,404	34.5
1993.....	280,749	100.0	153,278	54.6	127,471	45.4
1992.....	302,754	100.0	148,989	49.2	153,765	50.8
1991.....	315,421	100.0	141,923	45.0	173,498	55.0
1990.....	305,700	100.0	131,277	42.9	174,423	57.1
1989.....	285,018	100.0	117,189	41.1	167,829	58.9
1988.....	265,643	100.0	104,149	39.2	161,494	60.8
1987.....	242,529	100.0	93,699	38.6	148,830	61.4
1986.....	220,614	100.0	87,194	39.5	133,420	60.5
1985.....	210,449	100.0	81,921	38.9	128,528	61.1
1984.....	197,413	100.0	75,562	38.3	121,851	61.7
1983.....	176,555	100.0	72,152	40.9	104,403	59.1
1982.....	157,009	100.0	67,300	42.9	89,709	57.1
1981.....	152,563	100.0	64,632	42.4	87,931	57.6
1980.....	151,382	100.0	61,648	40.7	89,734	59.3
1979.....	150,566	100.0	59,207	39.3	91,359	60.7
1978.....	153,113	100.0	61,371	40.1	91,742	59.9
1977.....	149,587	100.0	61,303	41.0	88,284	59.0
1976.....	152,242	100.0	63,458	41.7	88,784	58.3
1975.....	153,140	100.0	63,753	41.6	89,387	58.4
1974.....	158,887	100.0	71,599	45.1	87,288	54.9
1973.....	150,292	100.0	72,539	48.3	77,753	51.7
1972.....	143,183	100.0	72,757	50.8	70,426	49.2
1971.....	132,078	100.0	68,379	51.8	63,699	48.2
1970.....	117,095	100.0	62,141	53.1	54,954	46.9
1969.....	102,042	100.0	55,124	54.0	46,918	46.0
1968.....	93,282	100.0	46,263	49.6	47,019	50.4
1967.....	83,517	100.0	39,474	47.3	44,043	52.7
1966.....	80,645	100.0	36,053	44.7	44,592	55.3

Note: These data include adults placed on supervised probation only. Data are limited to original grants of probation and do not include subsequent grants of probation to persons already under supervised probation in the same county.

<sup>a</sup> In 2018, San Joaquin County Probation discovered inaccurate reporting of caseload counts resulting in corrected felony and misdemeanor caseload counts for October.

<sup>b</sup> In 2016, Sacramento County Probation discovered inaccurate reporting of caseload counts from 2013-2015 resulting in a corrected beginning felony caseload count for 2016.

<sup>c</sup> In November 2014, California voters passed Proposition 47 which reduced numerous state statutes from felonies to misdemeanors. Caution should be used when comparing felony and misdemeanor data to prior years.

<sup>d</sup> San Bernardino County Probation revised their beginning caseload counts for 2014. The revision resulted in a decrease of almost 9,000 felony cases and an increase of almost 400 misdemeanor cases.

Table 42  
**ADULTS PLACED ON AND REMOVED FROM PROBATION, 2013-2018**  
 By Level of Offense, Type of Removal, and Rate per 100,000 Population at Risk

Placement and removal by level of offense	2013		2014 <sup>a</sup>		2015		2016		2017		2018		Percent change 2013-2018	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	2018	2018
Placed on probation														
Total.....	171,215	100.0	169,501	100.0	153,050	100.0	138,876	100.0	137,412	100.0	119,646	100.0	-30.1	-12.9
Felony offense.....	142,904	83.5	140,890	83.1	111,689	73.0	104,045	74.9	104,146	75.8	90,836	75.9	-36.4	-12.8
Misdemeanor offense.....	28,311	16.5	28,611	16.9	41,361	27.0	34,831	25.1	33,266	24.2	28,810	24.1	1.8	-13.4
Rate per 100,000 population at risk <sup>1</sup> - Placed on probation														
Total.....	663.0		648.7		580.4		524.3		517.2		447.8		-32.5	-13.4
Felony offense.....	553.3		539.2		423.6		392.8		392.0		340.0		-38.6	-13.3
Misdemeanor offense.....	109.6		109.5		156.9		131.5		125.2		107.8		-1.6	-13.9
Removed from probation														
Total.....	164,760	100.0	163,075	100.0	161,166	100.0	136,166	100.0	133,943	100.0	136,638	100.0	-17.1	2.0
Felony offense.....	134,849	81.8	134,970	82.8	119,320	74.0	103,172	75.8	100,745	75.2	102,212	74.8	-24.2	1.5
Misdemeanor offense.....	29,911	18.2	28,105	17.2	41,846	26.0	32,994	24.2	33,198	24.8	34,426	25.2	15.1	3.7
Terminated.....	73,994	44.9	70,397	43.2	75,165	46.6	58,090	42.7	57,496	42.9	71,869	52.6	-2.9	25.0
Felony offense.....	61,819	37.5	58,865	36.1	53,855	33.4	44,860	32.9	44,151	33.0	52,594	38.5	-14.9	19.1
Misdemeanor offense.....	12,175	7.4	11,532	7.1	21,310	13.2	13,230	9.7	13,345	10.0	19,275	14.1	58.3	44.4
Revoked.....	64,897	39.4	62,942	38.6	60,351	37.4	53,388	39.2	52,475	39.2	46,484	34.0	-28.4	-11.4
Felony offense.....	54,126	32.9	53,060	32.5	46,226	28.7	39,804	29.2	38,759	28.9	35,757	26.2	-33.9	-7.7
Misdemeanor offense.....	10,771	6.5	9,882	6.1	14,125	8.8	13,584	10.0	13,716	10.2	10,727	7.9	-0.4	-21.8
Other <sup>2</sup> .....	25,869	15.7	29,736	18.2	25,650	15.9	24,688	18.1	23,972	17.9	18,285	13.4	-29.3	-23.7
Felony offense.....	18,904	11.5	23,045	14.1	19,239	11.9	18,508	13.6	17,835	13.3	13,861	10.1	-26.7	-22.3
Misdemeanor offense.....	6,965	4.2	6,691	4.1	6,411	4.0	6,180	4.5	6,137	4.6	4,424	3.2	-36.5	-27.9
Rate per 100,000 population at risk <sup>1</sup> - Removed from probation														
Total.....	638.0		624.1		611.2		514.1		504.2		511.4		-19.8	1.4
Terminated.....	286.5		269.4		285.1		219.3		216.4		269.0		-6.1	24.3
Revoked.....	251.3		240.9		228.9		201.6		197.5		174.0		-30.8	-11.9
Other.....	100.2		113.8		97.3		93.2		90.2		68.4		-31.7	-24.2

Notes: Rates and percentages may not add to subtotals, total, or 100.0 because of rounding.

These data include adults placed on supervised probation only. Data are limited to original grants of probation and do not include subsequent grants of probation to persons already under supervised probation in the same county.

Rates per 100,000 population at risk for 2015 and 2017 will not match previously published data.

<sup>a</sup> In November 2014, California voters passed Proposition 47 which reduced numerous state statutes from felonies to misdemeanors. Caution should be used when comparing felony and misdemeanor data to prior years.

<sup>1</sup> Rates are based on the adult population at risk (18-69 years of age) for each year (see Table 52).

<sup>2</sup> "Other" includes transfer of jurisdiction from one county to another, death, sentence vacated, successful appeal, deportation, etc.

Table 43  
**CRIMINAL JUSTICE FULL-TIME PERSONNEL, 1969-2018**  
 By Type of Agency

Year(s)	Total personnel	Law enforcement	Prosecution <sup>1</sup>	Public defense	Probation
2018.....	153,549	120,005	10,366	4,222	18,956
2017.....	153,431	119,648	10,199	4,200	19,384
2016.....	152,427	119,148	9,918	4,101	19,260
2015.....	151,439	118,309	9,776	4,006	19,348
2014.....	151,178	118,393	9,639	3,977	19,169
2013.....	149,798	117,340	9,429	3,926	19,103
2012.....	149,353	117,238	9,367	3,938	18,810
2011.....	148,772	116,794	9,479	3,914	18,585
2010.....	152,379	118,981	9,852	4,131	19,415
2009.....	157,704	122,042	10,199	4,091	21,372
2008.....	159,156	123,680	10,429	4,320	20,727
2007.....	155,503	121,305	10,179	4,137	19,882
2006.....	149,237	116,128	9,619	3,924	19,566
2005.....	145,435	113,604	9,297	3,791	18,743
2004.....	143,936	112,826	9,166	3,733	18,211
2003.....	147,790	114,945	9,480	3,788	19,577
2002.....	148,208	115,552	10,069	3,773	18,814
2001.....	147,650	108,208	17,296	3,686	18,460
2000.....	142,132	103,579	18,481	3,950	16,122
1999.....	139,304	102,769	16,476	3,857	16,202
1998.....	133,841	98,495	15,876	3,651	15,819
1997.....	129,332	96,322	14,826	3,622	14,562
1996.....	124,090	94,207	12,548	3,533	13,802
1995.....	119,850	91,198	11,998	3,246	13,408
1994.....	115,244	86,933	11,461	3,224	13,626
1993.....	113,287	85,989	10,324	3,278	13,696
1992.....	113,256	87,020	10,272	3,220	12,744
1991.....	115,554	88,628	10,027	3,255	13,644
1990.....	113,440	86,814	9,984	3,104	13,538
1989.....	108,905	83,807	8,955	3,040	13,103
1988.....	96,341	72,586	8,251	2,822	12,682
1987.....	100,117	77,015	8,334	2,390	12,378
1986.....	98,282	75,437	8,470	2,270	12,105
1985.....	95,611	73,582	8,072	2,163	11,794
1984.....	93,912	74,536	7,686	2,013	9,677
1983.....	91,090	72,618	7,460	1,987	9,025
1982.....	89,762	71,352	7,407	1,972	9,031
1981.....	87,993	69,420	7,184	1,929	9,460
1980.....	87,425	67,321	7,272	1,893	10,939
1979.....	83,675	65,120	6,916	1,766	9,873
1978.....	83,715	64,928	6,806	1,782	10,199
1977.....	85,195	65,971	6,809	1,784	10,631
1976.....	82,873	64,060	6,183	1,680	10,950
1975.....	81,105	64,177	4,875	1,574	10,479
1974.....	77,757	62,020	4,352	1,559	9,826
1973.....	74,693	59,697	4,439	1,385	9,172
1972.....	71,483	58,028	3,428	1,236	8,791
1971.....	69,991	57,099	3,227	1,120	8,545
1970.....	66,482	55,320	2,506	929	7,727
1969.....	61,553	51,104	2,786	914	6,749

Note: Personnel in the Department of Justice and state regulatory agencies are not included.

<sup>1</sup> The passage of Assembly Bill 196 required that county-level child support programs, previously administered by district attorneys, be operated by local child support agencies. This accounts for the large decrease in prosecution personnel since 2001.

Table 44  
**CRIMINAL JUSTICE FULL-TIME PERSONNEL, 2013-2018**  
 By Type of Agency and Personnel Classification

Type of agency and personnel classification	2013	2014	2015	2016	2017	2018	Percent change	
							2013- 2018	2017- 2018
Total.....	149,798	151,178	151,439	152,427	153,431	153,549	2.5	0.1
Law enforcement.....	117,340	118,393	118,309	119,148	119,648	120,005	2.3	0.3
Prosecution.....	9,429	9,639	9,776	9,918	10,199	10,366	9.9	1.6
Attorneys.....	3,915	3,954	3,995	4,014	4,113	4,100	4.7	-0.3
Investigators.....	1,523	1,571	1,650	1,652	1,741	1,676	10.0	-3.7
Clerical and all other.....	3,991	4,114	4,131	4,252	4,345	4,590	15.0	5.6
Public defense.....	3,926	3,977	4,006	4,101	4,200	4,222	7.5	0.5
Attorneys.....	2,418	2,423	2,438	2,483	2,514	2,523	4.3	0.4
Investigators.....	466	476	482	486	517	529	13.5	2.3
Clerical and all other.....	1,042	1,078	1,086	1,132	1,169	1,170	12.3	0.1
Probation.....	19,103	19,169	19,348	19,260	19,384	18,956	-0.8	-2.2
Probation officers.....	13,602	13,722	13,388	13,412	13,920	12,842	-5.6	-7.7
All other.....	5,501	5,447	5,960	5,848	5,464	6,114	11.1	11.9

Sources: Law enforcement, district attorney, public defender, and probation personnel surveys conducted by the Criminal Justice Statistics Center. Law enforcement personnel counts are obtained from a one-day survey taken on October 31st. All other personnel survey counts are taken on June 30th.

Note: Personnel in the Department of Justice and state regulatory agencies are not included.

Table 45  
**LAW ENFORCEMENT FULL-TIME PERSONNEL, 2013-2018**  
 By Type of Agency

Type of agency	2013	2014	2015	2016	2017	2018	Percent change	
							2013-2018	2017-2018
Total								
Total.....	117,340	118,393	118,309	119,148	119,648	120,005	2.3	0.3
Sworn and civilian								
Sworn.....	76,925	77,139	77,351	77,824	78,715	79,113	2.8	0.5
Civilian.....	40,415	41,254	40,958	41,324	40,933	40,892	1.2	-0.1
Agency								
Police departments.....	50,956	51,500	51,634	52,218	52,530	53,065	4.1	1.0
Sworn.....	37,024	37,214	37,472	37,676	37,964	38,151	3.0	0.5
Civilian.....	13,932	14,286	14,162	14,542	14,566	14,914	7.0	2.4
Sheriffs' departments.....	52,115	52,668	52,593	52,672	52,542	52,310	0.4	-0.4
Sworn.....	30,120	30,098	30,080	30,386	30,690	30,796	2.2	0.3
Civilian.....	21,995	22,570	22,513	22,286	21,852	21,514	-2.2	-1.5
California Highway Patrol.....	10,623	10,551	10,414	10,591	10,737	10,529	-0.9	-1.9
Sworn.....	7,236	7,275	7,226	7,197	7,401	7,286	0.7	-1.6
Civilian.....	3,387	3,276	3,188	3,394	3,336	3,243	-4.3	-2.8
Other law enforcement agencies <sup>1</sup> .....	3,646	3,674	3,668	3,667	3,839	4,101	12.5	6.8
Sworn.....	2,545	2,552	2,573	2,565	2,660	2,880	13.2	8.3
Civilian.....	1,101	1,122	1,095	1,102	1,179	1,221	10.9	3.6

Source: Law Enforcement Personnel Survey conducted by the Criminal Justice Statistics Center. The one-day survey is taken October 31<sup>st</sup>.

Note: Personnel in the Department of Justice and state regulatory agencies are not included.

<sup>1</sup> The "other law enforcement agencies" category includes personnel from University of California, State Parks and Recreation, California State University, and Bay Area Rapid Transit.



Year(s)	Total		Non-crimal		Criminal					
	Reported <sup>1</sup>	Sustained	Reported	Sustained	Total		Felony		Misdemeanor	
					Reported	Sustained	Reported	Sustained	Reported	Sustained
2018.....	16,525	1,241	15,635	1,168	890	73	314	13	576	60
2017.....	16,841	1,169	15,946	1,084	895	85	342	22	553	63
2016.....	15,406	1,227	14,360	1,141	1,046	86	379	26	667	60
2015.....	14,402	1,325	13,080	1,195	1,322	130	428	41	894	89
2014.....	15,693	1,288	14,407	1,179	1,286	109	487	40	799	69
2013.....	17,032	1,646	15,815	1,531	1,217	115	461	32	756	83
2012.....	20,363	1,612	18,984	1,456	1,379	156	537	51	842	105
2011.....	18,590	1,724	17,112	1,554	1,478	170	589	58	889	112
2010.....	22,458	2,178	20,715	2,023	1,743	155	573	62	1,170	93
2009.....	22,614	1,844	21,181	1,692	1,433	152	600	51	833	101
2008.....	23,470	1,687	22,330	1,499	1,140	188	621	46	519	142
2007.....	24,358	1,735	23,460	1,638	898	97	401	27	497	70
2006.....	21,620	1,688	19,957	1,572	1,663	116	1,122	46	541	70
2005.....	21,653	2,143	19,851	2,020	1,802	123	1,283	37	519	86
2004.....	20,609	2,053	18,782	1,932	1,827	121	1,154	41	673	80
2003.....	20,937	1,992	19,267	1,841	1,670	151	1,035	47	635	104
2002.....	21,970	2,574	20,259	2,405	1,711	169	1,015	61	696	108
2001.....	22,455	2,688	20,377	2,523	2,078	165	1,373	52	705	113
2000.....	23,395	2,395	21,470	2,166	1,925	229	1,217	54	708	175
1999.....	19,034	2,549	17,802	2,307	1,232	242	604	94	628	148
1998.....	17,483	2,706	15,902	2,433	1,581	273	890	115	591	158
1997.....	16,966	2,458	15,702	2,240	1,264	218	601	75	663	143
1996.....	19,376	2,728	17,865	2,439	1,511	289	646	93	865	196
1995.....	19,233	3,340	17,470	2,968	1,763	372	798	152	965	220
1994.....	19,629	2,860	18,291	2,576	1,338	284	490	101	848	183
1993.....	18,931	2,555	17,070	2,315	1,861	240	739	97	1,122	143
1992.....	17,468	2,769	15,723	2,459	1,745	310	782	110	963	200
1991.....	16,467	2,632	15,063	2,377	1,404	255	544	89	860	166
1990.....	14,755	2,754	13,343	2,459	1,412	295	493	86	919	209
1989.....	14,855	2,759	13,388	2,491	1,467	268	603	98	864	170
1988.....	13,817	2,438	12,363	2,148	1,454	290	605	115	849	175
1987.....	14,180	2,244	13,334	2,077	846	167	251	57	595	110
1986.....	12,811	2,412	12,083	2,252	728	160	245	49	483	111
1985.....	13,999	2,839	13,172	2,593	827	246	290	97	537	149
1984.....	12,875	2,357	12,137	2,204	738	153	223	49	515	104
1983.....	12,008	2,353	11,321	2,194	687	159	228	75	459	84
1982.....	11,599	2,092	10,156	1,854	1,443	238	322	40	1,121	198
1981.....	8,686	1,552	8,081							

Notes: Data collection began in 1981.

The data collected under Penal Code section 13012(e) are accurate and complete to the extent that the contributing agencies met reporting obligations.

Based on a survey conducted in 2004, it is estimated that complaints from inmates in prisons and jails may constitute approximately one-third of all complaints.

Based on a survey conducted in 2004, reported by law enforcement agencies.

The increase in the number of reported non-criminal complaints and the decrease in the number of reported felony complaints result from reporting-policy changes made by two law enforcement agencies.

Table 47  
**CIVILIANS' COMPLAINTS AGAINST PEACE OFFICERS, 2018**  
 By Type of Complaint by Finding

Type of complaint	Reported	Sustained	Exonerated	Not sustained	Unfounded	Pending
Local detention facility complaints						
Total complaints.....	16,525	1,241	2,991	4,597	5,756	4,752
Non criminal.....	15,635	1,168	2,830	4,494	5,135	4,320
Misdemeanor.....	576	60	112	56	413	293
Felony.....	314	13	49	47	208	139
Profiling complaints						
Total profiling complaints.....	1,193	22	115	262	633	442
Race/ethnicity.....	1,042	16	87	164	566	392
Nationality.....	40	0	5	5	22	11
Gender.....	58	2	7	7	24	19
Age.....	22	0	3	4	12	5
Religion.....	48	2	2	23	19	5
Gender identity/expression.....	55	3	4	20	24	10
Sexual orientation.....	60	1	6	24	28	7
Mental disability.....	40	1	6	9	20	8
Physical disability.....	67	2	9	23	30	6

Source: Civilians' Complaints Against Peace Officer counts are obtained from an annual survey conducted in January of the following statistical year.

Notes: Expanded categories of complaint findings and profiling data collection began in 2016 as a result of the passage of Assembly Bill 953 (2015).

Reporting agencies may use more findings than those captured on the annual survey. Complaints reported in previous years may be finalized and their findings reported in subsequent years. Consequently, the sum of the findings may not add up to the total reported.

More than one type of profiling complaint can be reported per citizen complaint. Consequently, the total number of profiling complaints is less than the sum of the types of complaints.

Because of the individual nature of the requirements of Penal Code section 832.5(a), reporting definitions and procedures vary among reporting agencies.

The data collected under Penal Code section 13012(e) are accurate and complete to the extent that the contributing agencies met reporting obligations.

Table 48  
**DOMESTIC VIOLENCE-RELATED CALLS FOR ASSISTANCE, 1986-2018**  
By Type of Call and Weapon

Year(s)	Total calls			Type of weapon <sup>1</sup>						Total strangulation and suffocation <sup>4</sup>		
	Total	Cases without a weapon	Cases involving a weapon	Firearm	Knife or cutting instrument	Other dangerous weapon	Personal weapon <sup>2</sup>	Not reported <sup>3</sup>	Total	Cases with strangulation	Cases with suffocation	
2018.....	166,890	90,183	76,707	1,383	3,370	11,481	60,473	0	7,531	7,029	502	
2017.....	169,362	94,260	75,102	1,429	3,418	11,762	58,493	0	-	-	-	
2016.....	164,569	93,783	70,786	1,281	3,357	11,059	55,089	0	-	-	-	
2015.....	162,302	93,717	68,585	905	3,122	9,916	54,642	0	-	-	-	
2014.....	155,965	89,320	66,645	813	2,911	9,910	53,011	0	-	-	-	
2013.....	151,325	89,121	62,204	754	2,901	9,090	49,459	0	-	-	-	
2012.....	157,634	94,085	63,549	804	3,009	9,303	50,433	0	-	-	-	
2011.....	158,548	96,615	61,933	975	3,061	9,014	48,879	4	-	-	-	
2010.....	166,361	100,496	65,865	867	2,991	9,895	52,112	0	-	-	-	
2009.....	167,087	99,385	67,702	819	3,219	10,172	53,492	0	-	-	-	
2008.....	166,343	101,124	65,219	940	3,258	10,006	51,015	0	-	-	-	
2007.....	174,649	105,227	69,422	1,027	3,442	10,940	54,013	0	-	-	-	
2006.....	176,299	95,353	80,946	1,277	3,662	11,953	64,054	0	-	-	-	
2005.....	181,362	88,335	93,027	1,233	3,700	12,867	75,227	0	-	-	-	
2004.....	186,439	88,703	97,736	1,193	4,028	13,054	79,461	0	-	-	-	
2003.....	194,288	87,557	106,731	1,380	4,027	14,194	87,130	0	-	-	-	
2002 <sup>a</sup> .....	196,569	76,710	119,859	1,528	4,091	15,295	98,945	0	-	-	-	
2001.....	198,031	61,665	136,366	1,325	4,213	15,557	115,271	0	-	-	-	
2000.....	196,880	61,724	135,156	1,441	4,363	15,048	114,304	0	-	-	-	
1999 <sup>b</sup> .....	186,406	58,611	127,795	1,520	4,237	13,929	108,109	0	-	-	-	
1998 <sup>b</sup> .....	196,832	60,174	136,658	1,921	4,422	15,535	114,780	0	-	-	-	
1997 <sup>b</sup> .....	220,156	64,506	155,650	2,073	5,462	17,502	130,613	0	-	-	-	
1996.....	227,899	68,824	159,075	2,327	5,868	16,474	134,406	0	-	-	-	
1995 <sup>c</sup> .....	246,315	72,016	174,299	2,838	6,370	16,385	148,706	0	-	-	-	
1994.....	250,439	68,199	182,240	3,089	6,491	16,716	155,944	0	-	-	-	
1993.....	238,895	65,635	173,260	2,951	6,273	15,366	148,670	0	-	-	-	
1992.....	240,826	65,473	175,353	3,053	6,507	14,518	151,275	0	-	-	-	
1991.....	203,638	55,083	148,555	3,129	5,423	12,008	127,958	37	-	-	-	
1990.....	195,019	54,079	140,940	2,610	5,417	10,879	117,693	4,341	-	-	-	
1989.....	188,581	52,512	136,069	2,730	5,276	9,935	113,907	4,221	-	-	-	
1988.....	182,540	54,345	128,195	2,532	5,048	9,634	110,068	913	-	-	-	
1987.....	181,112	57,232	123,880	2,704	4,865	8,228	107,055	1,028	-	-	-	
1986 <sup>d</sup> .....	83,661	27,818	55,843	1,255	2,293	4,062	47,778	455	-	-	-	

<sup>1</sup> Penal Code section 13730 does not require that the type of weapon involved in a domestic violence-related call be reported.

<sup>2</sup> Hands, feet, etc.

<sup>3</sup> Prior to 1989, the "personal weapon" category was not recognized by all reporting agencies as a type of weapon. When those agencies began reporting personal weapon calls as cases involving weapons, they did not provide the type of weapon designation. This accounts for the large increase in "not reported" weapons in 1989 and 1990.

<sup>4</sup> Data for cases with strangulation or suffocation are not available prior to 2018. For additional information, See Appendix 1, Data Characteristics and Known Limitations.

<sup>a</sup> In April 2002, law enforcement agencies were instructed to report personal weapons only if the assault resulted in an injury (aggravated assault).

<sup>b</sup> The San Francisco Police Department was unable to provide complete data for 1997, and did not report data for 1998 and 1999 because of computer problems.

<sup>c</sup> In 1996, this department reported 6,422 domestic violence-related calls for assistance.

<sup>d</sup> The Oakland Police Department was unable to provide 1995 data. In 1994, this department reported 5,237 domestic violence-related calls for assistance.

<sup>e</sup> Data collection began in July 1986; therefore, only six months of data are available and displayed for 1986.

Table 49  
**LAW ENFORCEMENT OFFICERS KILLED OR ASSAULTED, 1990-2018**  
Deaths and Assaults in the Line of Duty By Type of Activity

Year(s)	Law enforcement officers killed		Law enforcement officers assaulted								
			Total	Type of activity							
	Felonious	Accidental		Responding to disturbance	Crimes in progress <sup>1</sup>	Attempting other arrests	Handling prisoners	Investigating suspicious persons	Mentally deranged	Traffic pursuits and stops	All other <sup>2</sup>
2018.....	4	3	11,148	3,578	289	1,617	1,542	1,087	340	852	1,843
2017.....	2	4	10,770	3,468	313	1,495	1,363	1,133	388	926	1,684
2016.....	6	4	9,933	3,331	239	1,312	1,333	1,173	316	770	1,459
2015.....	2	2	9,924	3,154	308	1,345	1,265	1,225	353	704	1,570
2014.....	5	9	8,998	2,652	198	1,291	1,378	981	276	678	1,544
2013.....	5	2	8,388	2,680	265	1,177	1,181	924	180	722	1,259
2012.....	2	0	8,087	2,585	229	1,092	1,112	998	180	674	1,217
2011.....	2	4	8,424	2,847	227	938	1,138	975	173	738	1,388
2010.....	4	6	8,426	2,823	220	849	1,380	940	155	766	1,293
2009.....	4	2	8,996	2,929	211	881	1,594	1,050	183	901	1,247
2008.....	3	7	8,730	2,658	208	981	1,437	965	185	816	1,480
2007.....	4	5	8,480	2,492	176	910	1,504	845	246	932	1,375
2006.....	5	6	7,973	2,394	186	898	1,323	956	184	836	1,196
2005.....	5	9	8,372	2,399	159	961	1,532	948	178	900	1,295
2004.....	4	7	8,423	2,491	202	879	1,463	1,092	199	874	1,223
2003.....	6	11	8,218	2,517	195	755	1,307	1,033	168	919	1,324
2002.....	4	4	7,768	2,407	189	702	1,214	969	150	856	1,281
2001.....	6	5	7,748	2,555	180	675	1,171	979	179	933	1,076
2000.....	2	8	7,921	2,640	233	671	1,043	1,090	152	934	1,158
1999.....	4	3	6,857	2,253	171	656	979	1,022	133	809	834
1998.....	7	8	6,823	2,416	153	608	948	1,005	106	784	803
1997.....	7	6	6,874	2,439	192	783	654	1,017	160	796	833
1996.....	4	7	6,601	2,265	189	813	715	1,112	98	648	761
1995.....	10	3	7,088	2,486	175	885	809	1,091	141	760	741
1994.....	9	4	7,547	2,591	235	1,018	833	965	192	778	935
1993.....	8	5	7,492	2,514	270	950	868	1,031	105	725	1,029
1992.....	5	1	8,269	2,637	211	1,326	1,028	997	115	778	1,177
1991.....	3	1	7,570	2,280	211	1,291	1,038	1,003	70	793	884
1990.....	5	1	8,806	2,846	207	1,355	1,149	1,206	97	1,001	945

<sup>1</sup>"Crimes in progress" includes burglaries and robberies.

<sup>2</sup>"All other" includes "civil disorder", "ambush", and other miscellaneous types of activity.

Table 50  
**LAW ENFORCEMENT OFFICERS ASSAULTED, 2013-2018**  
 By Type of Weapon and Injury

Type of weapon and injury	2013		2014		2015		2016		2017		2018		Percent change	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	2013-2018	2017-2018
Total.....	8,388	100.0	8,998	100.0	9,924	100.0	9,933	100.0	10,770	100.0	11,148	100.0	32.9	3.5
Firearm.....	353	4.2	326	3.6	339	3.4	343	3.5	429	4.0	282	2.5	-20.1	-34.3
With injury.....	34	0.4	22	0.2	25	0.3	37	0.4	32	0.3	22	0.2	-	-
Without injury.....	319	3.8	304	3.4	314	3.2	306	3.1	397	3.7	260	2.3	-18.5	-34.5
Knife/other cutting inst.....	134	1.6	168	1.9	155	1.6	223	2.2	201	1.9	199	1.8	48.5	-1.0
With injury.....	15	0.2	27	0.3	12	0.1	23	0.2	18	0.2	14	0.1	-	-
Without injury.....	119	1.4	141	1.6	143	1.4	200	2.0	183	1.7	185	1.7	55.5	1.1
Other dangerous weapon.....	1,290	15.4	1,396	15.5	1,565	15.8	1,504	15.1	1,578	14.7	1,496	13.4	16.0	-5.2
With injury.....	283	3.4	239	2.7	266	2.7	256	2.6	248	2.3	235	2.1	-17.0	-5.2
Without injury.....	1,007	12.0	1,157	12.9	1,299	13.1	1,248	12.6	1,330	12.3	1,261	11.3	25.2	-5.2
Hands, fists, feet.....	6,611	78.8	7,108	79.0	7,865	79.3	7,863	79.2	8,562	79.5	9,171	82.3	38.7	7.1
With injury.....	2,035	24.3	2,347	26.1	2,515	25.3	2,514	25.3	2,556	23.7	2,800	25.1	37.6	9.5
Without injury.....	4,576	54.6	4,761	52.9	5,350	53.9	5,349	53.9	6,006	55.8	6,371	57.1	39.2	6.1

Notes: Percentages may not add to subtotals or 100.0 because of rounding.

Dash indicates that a percent change is not calculated when the base number is less than 50.

Table 51  
**ANTI-REPRODUCTIVE-RIGHTS CRIMES, 2013-2018**  
 By Type of Offense, Type of Weapon, Location, and Type of Victim

	2013	2014	2015	2016	2017	2018
Events <sup>1</sup> .....	0	2	4	2	10	11
Offenses.....	0	2	5	2	10	11
Victims <sup>2</sup> .....	0	2	5	2	10	11
Suspects <sup>3</sup> .....	0	2	3	1	4	6
Type of offense						
Total.....	0	2	5	2	10	11
Arson.....	0	0	0	1	0	0
Assault.....	0	1	2	0	3	3
Burglary.....	0	0	0	0	0	2
Disturbing the peace.....	0	0	0	0	0	0
Vandalism.....	0	1	2	0	6	5
Trespass.....	0	0	0	1	0	1
Malicious mischief.....	0	0	1	0	0	0
Theft.....	0	0	0	0	1	0
Type of weapon						
Total.....	0	2	4	2	10	11
Handgun.....	0	0	0	0	0	0
Blunt object.....	0	0	0	0	0	2
Personal weapons <sup>4</sup> .....	0	0	0	0	2	1
Other.....	0	0	0	1	1	0
Not applicable <sup>5</sup> .....	0	2	4	1	7	8
Location						
Total.....	0	2	4	2	10	11
Residence/home/driveway.....	0	0	0	0	3	0
Public health facility.....	0	2	1	1	3	9
Private health facility.....	0	0	3	1	2	1
Other.....	0	0	0	0	2	1
Type of victim						
Total.....	0	2	5	2	10	11
Individual.....	0	1	2	0	6	4
Client.....	0	0	0	0	2	0
Employee.....	0	1	0	0	3	1
Other.....	0	0	2	0	1	3
Property.....	0	1	3	2	4	7
Business.....	0	0	2	0	0	3
Government.....	0	0	1	0	0	0
Health facility.....	0	1	0	2	4	4

<sup>1</sup> An "event" is an occurrence of one or more criminal offenses committed against one or more victims by one or more suspects/perpetrators.

<sup>2</sup> A "victim" may be an individual, a reproductive health facility, a religious facility, a residence, etc. A victim can have more than one offense committed against them.

<sup>3</sup> Suspect counts only reflect when certain demographics are reported.

<sup>4</sup> Hands, feet, etc.

<sup>5</sup> The type of weapon only applies to crimes against persons or in cases involving incendiary devices.



Table 52  
**POPULATION ESTIMATES, 1966-2018**

Year(s)	Total population	Population at risk		
		Total <sup>1</sup>	Adult <sup>2</sup>	Juvenile <sup>3</sup>
2018.....	39,825,181	30,947,933	26,718,187	4,229,746
2017.....	39,613,045	30,771,994	26,566,180	4,205,814
2016.....	39,354,432	30,662,726	26,486,720	4,176,006
2015.....	39,071,323	30,426,258	26,369,040	4,057,218
2014.....	38,499,378	30,190,364	26,129,967	4,060,397
2013.....	38,204,597	29,923,597	25,825,829	4,097,768
2012.....	37,826,160	29,735,335	25,593,235	4,142,100
2011.....	37,578,616	29,556,094	25,352,813	4,203,281
2010.....	37,318,481	29,432,329	25,166,828	4,265,501
2009.....	37,077,204	29,092,061	24,846,056	4,246,005
2008.....	36,856,222	28,869,786	24,483,271	4,386,515
2007.....	36,552,529	28,597,658	24,193,795	4,403,863
2006.....	36,246,822	28,317,290	23,915,923	4,401,367
2005.....	35,985,582	28,066,451	23,678,907	4,387,544
2004.....	35,752,765	27,835,492	23,461,739	4,373,753
2003.....	35,388,928	27,496,472	23,162,159	4,334,313
2002.....	34,938,290	27,091,683	22,826,738	4,264,945
2001.....	34,512,742	26,707,152	22,524,040	4,183,112
2000.....	34,000,835	26,252,783	22,175,874	4,076,909
1999.....	34,036,000	25,711,892	21,855,190	3,856,702
1998.....	33,494,000	25,263,064	21,498,170	3,764,894
1997.....	32,957,000	25,760,375	21,934,916	3,825,459
1996.....	32,383,000	25,554,242	21,825,735	3,728,507
1995.....	32,063,000	25,122,782	21,505,839	3,616,943
1994.....	32,140,000	24,703,379	21,193,571	3,509,808
1993.....	31,742,000	24,334,534	20,923,632	3,410,902
1992.....	31,300,000	23,975,578	20,661,120	3,314,458
1991.....	30,646,000	23,585,168	20,356,984	3,228,184
1990.....	29,557,836	23,178,961	20,027,633	3,151,328
1989.....	28,771,207	22,524,392	19,451,763	3,072,629
1988.....	28,060,746	21,969,953	18,885,349	3,084,604
1987.....	27,388,477	21,483,563	18,378,758	3,104,805
1986.....	26,741,621	21,009,362	17,903,122	3,106,240
1985.....	26,112,632	20,563,314	17,468,941	3,094,373
1984.....	25,587,254	20,167,923	17,083,479	3,084,444
1983.....	25,075,581	19,860,746	16,763,095	3,097,651
1982.....	24,546,566	19,510,945	16,415,571	3,095,374
1981.....	24,038,711	19,172,812	16,082,355	3,090,457
1980.....	23,668,145	18,824,197	15,778,999	3,045,198
1979.....	23,255,000	18,371,691	15,323,376	3,048,315
1978.....	22,839,000	18,012,901	14,916,032	3,096,869
1977.....	22,350,000	17,619,453	14,470,680	3,148,773
1976.....	21,935,000	17,269,884	14,080,872	3,189,012
1975.....	21,537,000	16,914,556	13,694,793	3,219,763
1974.....	21,173,000	16,563,671	13,339,906	3,223,765
1973.....	20,868,000	16,237,031	13,031,007	3,206,024
1972.....	20,585,000	15,926,249	12,758,809	3,167,440
1971.....	20,346,000	15,657,238	12,542,795	3,114,443
1970.....	20,039,000	15,378,312	12,339,580	3,038,732
1969.....	19,856,000	14,697,200	11,657,600	3,039,600
1968.....	19,554,000	14,379,400	11,403,700	2,975,700
1967.....	19,478,000	14,065,700	11,159,800	2,905,900
1966.....	19,132,000	13,696,700	10,872,500	2,824,200

Source: Population estimates were provided by the Demographic Research Unit, California Department of Finance (March 2019).

<sup>1</sup> Total population at risk: 10-69 years of age.

<sup>2</sup> Adult population at risk: 18-69 years of age.

<sup>3</sup> Juvenile population at risk: 10-17 years of age.

# Appendix 1

## Data Characteristics and Known Limitations

### CRIMES

#### Uniform Crime Reporting (UCR) Program

- Crime data from the UCR Program are available from 1952 to 2018.
- The number of reported homicide, rape, and aggravated assault crimes represents known victims; while for robbery, burglary, larceny-theft, motor vehicle theft, and arson, the number represents known incidents.
- If multiple crimes occur during the same event, only the most serious (based upon a hierarchy) is counted. Arson is the exception.
- Law enforcement agencies began submitting arson crimes data in 1979; however, 1980 was the first year of complete reporting. Agencies must report as arson only fires determined through investigation to have been willfully or maliciously set. Attempts to burn are included in this offense, but fires of suspicious or unknown origins are not.
- In 2011, the lower limit of felony theft in California was raised from \$400 to \$950. It was not feasible to adjust the California Department of Justice's (DOJ) data collection process to collect the new lower limit of felony larceny-theft, and consequently, it is no longer possible to distinguish felony from misdemeanor larceny-theft. Therefore, it was decided to include total larceny-theft crime in the property crime category regardless of value.
- In 2013, the Federal Bureau of Investigation's UCR Program revised the definition of "forcible rape" (the carnal knowledge of a female forcibly and against her will) to "rape," which is now defined as "penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim."

The California DOJ implemented this definition change in January 2014. During 2014, agencies were encouraged to report using the new definition, but were allowed to report under the historical definition while transitioning their reporting systems.

All rape data is presented in this publication. Percent change in crime rates are not calculated when the base year rape data was submitted under the old definition of rape.

### ARRESTS

#### Monthly Arrest and Citation Register (MACR)

- Arrest data from the MACR reporting system are available from 1957 to 2018.
- If a person is arrested for multiple offenses on the same day, MACR selects only the most serious offense based on the severity of possible punishment.
- Felony arrest counts may include some misdemeanor warrants for felony offenses.
- The subjectivity of the classification and labeling process must be considered in analyses of race/ethnic group data.
- The Bakersfield Police Department was unable to provide arrest data for February through December 1995. The Oakland Police Department was unable to provide any arrest data for 1995. Estimates for both agencies were added to the 1995 statewide totals for publication trend tables.
- Beginning in 2004, the population category of "other" for race/ethnic group includes the Department of Finance's race/ethnic group of "multi-racial."

- In 2011, there were notable changes in California law that affected arrest data. First, the lower limit of felony theft was raised from \$400 to \$950, contributing to the decline in felony theft arrests and the increase in misdemeanor theft arrests. Second, some misdemeanor marijuana statutes were re-classified as infractions, leading to a significant decline in misdemeanor marijuana arrests.
- In 2014, the definition of rape changed. Refer to the Crimes section for more detailed explanation and Appendix 3 for a list of included offenses codes.
- In November 2014, California voters passed Proposition 47 which reduced numerous state statutes from felonies to misdemeanors. Caution should be used when comparing felony and misdemeanor arrest data to prior years.
- In November 2016, California voters passed Proposition 64 which legalized the possession and use of marijuana for individuals 21 years of age and older and reduced the offense degree for numerous state statutes. Caution should be used when comparing drug offense arrests to prior years.
- "Final disposition" refers to the last adult-level legal action that is reported prior to the close of the annual file. Final disposition can occur at the law enforcement, prosecutorial, or court level. Intermediate dispositions (diversion programs, suspended proceedings, or subsequent actions) are not included in the data.
- Dispositions that occur at the law enforcement or prosecutorial level involving releases, rejections, or resolutions can be reported in one calendar year file, proceed to adjudication at the court level, and then be reported again in a subsequent year file. The law enforcement release or prosecutorial rejection reported in the prior year's file is not retroactively updated or removed.
- If a person is arrested for multiple offenses, the extract selects only the most serious offense based on the severity of possible punishment. If there are multiple dispositions, the extract selects the most serious disposition and the associated offense.
- Disposition data on state institutional commitments may vary from information compiled and reported by other state agencies because of differences in the data collection systems and criteria.

#### **DISPOSITIONS OF ADULT FELONY ARRESTS**

- Adult felony arrest disposition data are extracted annually from the California Department of Justice Criminal History System. The data statistically captures the number of adult-level final dispositions that occur each year as a result of a felony arrest and are displayed by the year of disposition regardless of the year in which an arrest occurred.
- Disposition data do not reflect the actual number of final dispositions occurring each year. Fluctuations from year to year may not necessarily be the result of actual occurrences in the criminal justice system, but may reflect the degree to which reports of dispositions were reported and processed.
- The adult felony arrest disposition file includes some persons whose age at arrest was under 18. These minors received a final disposition in adult court under provisions of Welfare and Institutions Code sections 602, 707(a), 707(b), 707(c), and 707.1(a).

## ADULT PROBATION

- Probation data include adults placed on supervised probation only. Court probation, diversion, and summary probation data are not included.
- Adult probation data are limited to original grants of probation and do not include subsequent grants of probation to those already under supervised probation in the same county. Probationers are counted for each jurisdiction in which they are on probation.
- From 2001 to 2005, San Francisco did not report adult probation data. San Francisco resumed reporting in 2006.
- Counts for adults on active probation for felony offenses may also include adults on probation for misdemeanor offenses for the following counties and years: Contra Costa (2000–2018), Kern (2010–2018), Lake (2001–2012), Merced (2003–2016), Sacramento (2003–2015), Shasta (2016–2018), Siskiyou (2000–2012), Tulare (2000–2009), and Yolo (2000–2009).
- Some counties may have counted individuals on Post Release Community Supervision.
- In 2014, the San Bernardino County Probation Department discovered inaccurate probation statistics due to a flaw in their case management records system. Correcting the flaw resulted in a probation caseload decrease of 10,000 from previous years.
- In 2016, the Sacramento County Probation Department discovered that revoked and reinstated counts were not accurately reported in the data submitted for the reporting periods 2013–2015. Correcting the reporting practice resulted in a reduced beginning felony caseload for 2016.

- In October 2018, the San Joaquin County Probation Department discovered that probation caseload data had historically been inaccurately reported. An assessment of their records resulted in a decrease of both felony and misdemeanor caseloads by approximately 6,000.

## CRIMINAL JUSTICE PERSONNEL

- The UCR definition of law enforcement personnel specifies that law enforcement agencies report only personnel paid by funds designated for law enforcement.
- The 1996 data collection survey forms were revised in an attempt to collect counts on the number of criminal justice personnel employed by prosecutors, public defenders, and probation departments, regardless of the funding source. Prior to 1996, counts excluded state and federally funded positions.

## CIVILIANS' COMPLAINTS AGAINST PEACE OFFICERS

- Data on civilians' complaints against peace officers have been collected since 1981. Data are available as statewide totals only.
- Because of the nature of the requirements of Penal Code section 832.5, reporting definitions and procedures may vary among individual reporting agencies.
- Based on a survey conducted in 2004, it is estimated that approximately one-third of complaints against peace officers were made by inmates in prison and jails.
- In 2007, two law enforcement agencies adjusted their reporting policies, substantially affecting the number of reported non-criminal and felony complaints.
- In 2017, California Penal Code section 13012 was amended replacing the word citizens' with civilians'. This modification was applied to the 2018 data collection.

#### **DOMESTIC VIOLENCE-RELATED CALLS FOR ASSISTANCE**

- Reporting of domestic violence-related calls for assistance began in July 1986. The first full year of reporting was 1987.
- The definition of "domestic violence" is subject to varying interpretations by law enforcement agencies. As a result, different types of domestic relationships are included in the database.
- The San Francisco Police Department did not report domestic violence data from April 1997 to December 1999.
- Included in the data are any cases that resulted in a report being written by the responding law enforcement agencies. Therefore, data include both cases where an arrest was made and those where circumstances did not warrant an arrest.
- In April 2002, law enforcement agencies were instructed to report personal weapons (hands, fists, or feet) only if the assault resulted in an injury (aggravated assault). This instruction resulted in a notable decrease in the number of personal weapons reported.
- In 2017, California Penal Code section 13730 was amended. Beginning in 2018, law enforcement agencies were instructed to include whether there were indications that the incident involved strangulation or suffocation. This includes whether a witness or victim reported such an incident, or symptoms thereof, or whether an officer observed any other indications of strangulation or suffocation.

#### **LAW ENFORCEMENT OFFICERS KILLED OR ASSAULTED (LEOKA)**

- LEOKA data from the UCR Program are available from 1990 to 2018.
- State correctional officers and federal agents are not included in LEOKA data.

## Appendix 2

### Computational Formulas

#### CRIMES

**Crime rate** – A crime rate describes the number of crimes reported to law enforcement agencies for every 100,000 persons within a population. A crime rate is calculated by dividing the number of reported crimes by the total population. The result is then multiplied by 100,000. For example, in 2018 there were 54,312 robberies in California and the population was 39,825,181. This equals a robbery crime rate of 136.4 per 100,000.

$$\frac{54,312}{39,825,181} = 0.0013637 \times 100,000 = 136.4 \text{ per } 100,000$$

**Clearance rate** – A clearance rate describes the percentage of clearances reported to the number of crimes reported. A clearance rate is calculated by dividing the number of clearances by the number of crimes reported. The result is multiplied by 100. For example, in 2018 there were 1,116 clearances for homicide crimes and 1,739 homicides reported. This equals a homicide clearance rate of 64.2 percent.

$$\frac{1,116}{1,739} = 0.64174 \times 100 = 64.2 \text{ percent}$$

#### ARRESTS

**Arrest rate** – An arrest rate describes the number of arrests made by law enforcement agencies per 100,000 total population or per 100,000 population considered to be at risk for arrest. Regardless of the population used, both rates are calculated in the same manner. An arrest rate is calculated by dividing the number of reported arrests by the desired population. The result is multiplied by 100,000.

For example: 1) In 2018, there were 302,514 total felony arrests and the total population was 39,825,181, which equates to a 759.6 arrest rate; 2) In 2018, there were 302,514 total felony arrests and the population at risk (10-69 years of age) was 30,947,993, which equates to a 977.5 arrest rate.

$$1) \quad \frac{302,514}{39,825,181} = 0.0075960 \times 100,000 = 759.6 \text{ per } 100,000 \text{ population}$$

$$2) \quad \frac{302,514}{30,947,993} = 0.0097749 \times 100,000 = 977.5 \text{ per } 100,000 \text{ population at risk}$$



### ADDITIONAL INFORMATION

**Percent change** – A percent change describes the change in number or rate from one year to another. A percent change is calculated by subtracting the base-year data from the current-year data. The result is divided by the base-year data and multiplied by 100. For example, in 2018 the robbery crime rate was 136.4. In 2013, the robbery crime rate was 140.4. The percent change in rate from 2013 to 2018 is a 2.8 percent decrease.

$$\frac{136.4 - 140.4}{140.4} = -0.02849 \times 100 = -2.8 \text{ percent}$$

**Populations at risk** – The Arrest tables in this report (16, 17, 22, and 27) include three comparison populations: total (10–69 years of age), adult (18–69 years of age), and juvenile (10–17 years of age).

When a series of rates is calculated using different populations, the rate calculated for the total will not equal the sum of the rates for the parts. For example, the arrest rate calculated using the total at-risk population will not equal the sum of the juvenile arrest rate (based on the juvenile at-risk population) and the adult arrest rate (based on the adult at-risk population).

Also, the percent changes calculated for these at-risk rates cannot be added. This is because the percent change in the total arrest rate is the result of independent changes in both the number of arrests and the at-risk populations of adults and juveniles.

# Appendix 3

## Arrest Offense Codes

The following statutes and their offense groupings were valid at the time of the closeout of the 2018 arrest offense code file. All statutory codes listed are for Penal Code sections unless indicated as follows:

BP - Business and Professions Code  
CC - Corporations Code  
CI - Civil Code  
EC - Education Code  
FA - Food and Agriculture Code  
FC - Financial Code

FG - Fish and Game Code  
GC - Government Code  
HN - Harbors and Navigation Code  
HS - Health and Safety Code  
IC - Insurance Code  
LC - Labor Code

MV - Military and Veterans Code  
PR - Public Resources Code  
RT - Revenue and Taxation Code  
SH - Streets and Highways Code  
UI - Unemployment Insurance Code  
VC - Vehicle Code  
WI - Welfare and Institutions Code

### FELONY-LEVEL ARREST OFFENSES

**Homicide** - 128, 187(a), 192(a), 192(b), 273ab(a), 18755(a)

**Rape** - 220, 220(a)(1), 220(a)(2), 220(b), 261(a)(1), 261(a)(2), 261(a)(3), 261(a)(4), 261(a)(4)(a), 261(a)(4)(b), 261(a)(4)(c), 261(a)(4)(d), 261(a)(5), 261(a)(6), 261(a)(7), 262(a)(1), 262(a)(2), 262(a)(3), 262(a)(4), 262(a)(5), 264(c)(1), 264(c)(2), 264.1(a), 264.1(b)(1), 264.1(b)(2), 266c, 269(a)(1), 269(a)(2), 269(a)(3), 269(a)(4), 269(a)(5), 286(b)(1)\*, 286(b)(2), 286(c)(1), 286(c)(2)(a), 286(c)(2)(b), 286(c)(2)(c), 286(c)(3), 286(d)(1), 286(e), 286(f), 286(f)(1), 286(f)(2), 286(f)(3), 286(f)(4), 286(g), 286(h), 286(i), 286(j), 286(k), 288a(a), 288a(b)(1), 288a(b)(2), 288a(c)(1), 288a(c)(2)(a), 288a(c)(2)(b), 288a(c)(3), 288a(d), 288a(d)(1), 288a(d)(2), 288a(d)(3), 288a(e), 288a(f), 288a(f)(1), 288a(f)(2), 288a(f)(3), 288a(f)(4), 288a(g), 288a(h), 288a(i), 288a(j), 288a(k), 288.7(a), 288.7(b), 289(a)(1)(a), 289(a)(1)(b), 289(a)(1)(c), 289(a)(2), 289(b), 289(c), 289(d), 289(d)(1), 289(d)(2), 289(d)(3), 289(d)(4), 289(e), 289(f), 289(g), 289(h)\*, 289(i), 289(j)

**Robbery** - 211, 212.5(a), 212.5(b), 212.5(c), 213(a)(1)(a), 213(a)(2), 214, 215(a)

**Assault** - 69\*, 71, 76(a)\*, 95.1, 139(a), 140(a)\*, 146e(b), 148(b)\*, 148(c), 148(d)\*, 148(d)(1), 148.1(a), 148.1(b), 148.1(c), 148.1(d), 148.3(b), 148.4(b)(1), 148.4(b)(2), 148.10(a)\*, 149\*, 151(a)(2), 186.26(a), 186.26(c), 203, 205, 206, 217.1(a), 217.1(b), 218, 218.1\*, 219, 219.1, 219.2\*, 220, 222, 241.1, 241.4, 241.7, 242\*, 243(c)(1)\*, 243(c)(2)\*, 243(d), 243.1, 243.3\*, 243.6\*, 243.7, 243.9(a)\*, 244, 244.5(b)\*, 244.5(c)\*, 245(a)(1)\*, 245(a)(2)\*, 245(a)(3), 245(a)(4)\*, 245(b), 245(c), 245(d)(1), 245(d)(2), 245(d)(3), 245.2, 245.3, 245.5(a), 245.5(b), 245.5(c), 246\*, 246.3(a)\*, 247(a), 247(b), 247.5\*, 273a(a)\*, 273ab(b), 273d(a), 273.5(a)\*, 273.5(f)(1)\*, 273.5(f)(2)\*, 347(a)(1), 347(b), 368(b)(1)\*, 375(a)\*, 375(d), 401, 405a, 417(b)\*, 417(c)\*, 417.3, 417.6(a), 417.8, 422(a)\*, 422.7(a), 588a\*, 601(a)(1), 601(a)(2), 625c, 664/187(a), 664/192(a), 1768.8(b) WI, 1768.85(a) WI\*, 1808.4(d) VC, 4131.5, 4500, 4501, 4501.1(a), 4501.5, 11412, 11413(a), 11418(a)(1), 11418(a)(2), 11418(b)(1), 11418(b)(2), 11418(b)(3), 11418(b)(4), 11418(c), 11418(d)(1), 11418(d)(2), 11418.1\*, 11418.5(a)\*, 11419(a)\*, 12308, 12309, 15656(a) WI, 18715(a)(1), 18715(a)(2), 18715(a)(3), 18715(a)(5), 18725(a), 18725(b), 18725(c), 18740, 18755(b), 20110(a), 20110(b), 21464(c) VC, 23110(b) VC, 38318(b) VC, 38318.5(b) VC

**Kidnapping** - 157, 207(a), 207(b), 207(c), 207(d), 208(b), 209(a), 209(b)(1), 209.5(a), 209.5(b), 210, 278, 278.5(a), 280(b), 4503

**Burglary** - 459\*, 460, 460(a), 460(b)\*, 461, 461.1, 461.2, 463(a), 464, 664/459, 664/460, 664/460(a), 664/460(b)

**Theft** - 72, 115(a), 115.5(b), 116, 117, 134, 154(b), 155(b), 155.5(b), 156, 182(a)(4), 304 HN, 305 HN, 332(a)\*, 334(a)\*, 337.7, 350(a)\*, 350(a)(2)\*, 350(b), 368(d)\*, 368(e)\*, 424(a)1, 424(a)2, 424(a)3, 424(a)4, 424(a)5, 424(a)6, 424(a)7, 463(b), 474, 481, 481.1(a), 483.5(a), 484(a)\*, 484(b)\*, 484b\*, 484c, 484.1(a)\*, 485\*, 487(a)\*, 487(b)(1)(a), 487(b)(2)\*, 487(b)(3)\*, 487(c)\*, 487(d)(2), 487a(a)\*, 487a(b)\*, 487a(c)\*, 487b, 487d, 487e, 487g, 487h(a), 487i\*, 487j\*, 490.2\*, 495, 496(a), 496(b), 496(d)\*, 496a(a), 496c\*, 496d(a), 497, 498(d), 499c(b)(1), 499c(b)(2), 499c(b)(3), 499c(b)(4), 499d, 500\*, 500(a)(1)\*, 500(a)(2)\*, 500(a)(3)\*, 502(c)(1)(a), 502(c)(1)(b), 502(c)(2), 502(c)(4), 502(c)(5), 502(c)(6)\*, 502(c)(7)\*, 502.5\*, 502.7(a)(1)\*, 502.7(a)(2)\*, 502.7(a)(3)\*, 502.7(a)(4)\*, 502.7(a)(5)\*, 502.7(b)(1)\*, 502.7(b)(2), 502.7(c)\*, 502.7(d)\*, 502.7(g), 502.8(b)\*, 502.8(d), 502.8(e), 502.8(f), 503\*, 504\*, 504a\*, 504b\*, 505\*, 506\*, 506b, 507\*, 508\*, 514\*, 528, 529(a)\*, 529(a)(1)\*, 529(a)(2)\*, 529(a)(3)\*, 529a\*, 530\*, 530.5(a)\*, 530.5(c)(2)\*, 530.5(c)(3)\*, 530.5(d)(1)\*, 530.5(d)(2)\*, 532(a)\*, 532a(1)\*, 532a(2)\*, 532a(3)\*, 532a(4)\*, 532f(a)(1)\*, 533, 534, 535, 537(a)(2), 537(c)(2)\*, 537e(a)(3), 538\*, 538.5, 548(a), 549, 550(a)(1), 550(a)(2), 550(a)(3), 550(a)(4), 550(a)(5), 550(a)(6), 550(a)(7), 550(a)(8), 550(b)(1), 550(b)(2), 550(b)(3), 560, 560.4, 566, 571(b), 577, 578, 580, 581, 593d(b), 620, 642\*, 648\*, 650 BP, 666(a)\*, 666(b)\*, 750(a) IC, 892(a) CI, 1695.6(b)(1) CI, 1733 IC, 1778 LC, 1823 FC, 1871.4(a)(1) IC, 1871.4(a)(2) IC, 1871.4(a)(3) IC, 1871.4(a)(4) IC, 2101(a)(1) UI, 2102(a) UI, 2107 UI, 2108 UI, 2109 UI, 2110 UI, 2110.5 UI, 2114 UI, 2116(a) UI, 2116(b) UI, 2121 UI, 2255(b) CC, 2945.4(a) CI, 2945.4(g) CI\*, 3215 LC, 3352 FC, 3361 FC, 3531 FC, 4463(a)(1) VC, 4463(a)(2) VC, 7027.3 BP, 7028.16 BP\*, 7051 HS, 10238.6(c) BP, 10250.52 BP, 10752(a) VC, 10752(b) VC, 10801 VC, 10802 VC, 10803(a) VC, 10803(b) VC, 10855 VC\*, 10980(b) WI, 10980(c)(2) WI, 10980(d) WI, 10980(g)(2) WI, 11010(a) BP, 11019(a) BP, 11022(a) BP, 11320 BP, 11482.5 WI, 11483 WI\*, 11483.5 WI, 11760(a) IC, 11880(a) IC, 14014(a) WI\*, 14025(a) WI, 14107(b)(1) WI, 14591(b)(1)(f)(2) PR\*, 17410 WI, 17414(b) FC, 17511.12(a) BP, 17551(a) FA, 17551(b) FA, 18848 FA\*, 22430(a) BP, 22753(a) BP\*, 25110 CC, 25401 CC, 25540 CC, 25541 CC, 27443(a) GC, 27443(b) GC, 30475(b) RT, 30480 RT, 31110 CC, 31201 CC, 31410 CC, 31411 CC, 44209 HS, 94319.14(b) EC, 94320(f) EC, 94320(g) EC, 103800 HS

**Motor Vehicle Theft** – 487(d)(1)\*, 666.5(a), 10851(a) VC\*, 10851(b) VC, 10851(e) VC

**Forgery, Check, and Access Cards** - 113, 114, 470(a)\*, 470(b)\*, 470(c), 470(d)\*, 470a\*, 470b, 471, 472, 475(a)\*, 475(b)\*, 475(c)\*, 476\*, 476a(a)\*, 476a(b)\*, 477, 478, 479, 480(a), 484e(a), 484e(b), 484e(d)\*, 484f(a), 484f(b)\*, 484g\*, 484g(a)\*, 484g(b)\*, 484h(a)\*, 484h(b)\*, 484i(b), 484i(c)\*, 617, 10980(e) WI

**Arson** - 451(a), 451(b), 451(c), 451(d), 451.5(a), 451.5(a)(1), 451.5(a)(2)(a), 451.5(a)(3), 452(a), 452(b), 452(c), 453(a), 454(a)(1), 454(a)(2), 455

#### **Drug Offenses**

**Narcotic** - 11350(a) HS, 11350(b) HS\*, 11351 HS, 11351.5 HS, 11352(a) HS, 11352(b) HS, 11353(a) HS, 11353(b) HS, 11353(c) HS, 11354(a) HS

**Marijuana** - 11358(d) HS, 11359(c) HS, 11359(d) HS 11360(a) HS\*, 11361(a) HS, 11361(b) HS, 11362.4(d) HS

**Dangerous Drug** - 4060 BP\*, 11353.5 HS, 11353.7 HS, 11370.1(a) HS, 11375(b)(1) HS\*, 11377(a) HS\*, 11378 HS, 11378.5 HS, 11379(a) HS, 11379(b) HS, 11379.2 HS, 11379.5(a) HS, 11379.5(b) HS, 11380(a) HS, 11550(e) HS

**All Other** - 4324(a) BP\*, 4324(b) BP\*, 4336(a) BP, 11104(a) HS, 11106(j) HS\*, 11152 HS, 11153(a)(1) HS, 11154(a) HS, 11154(b) HS, 11155 HS, 11156 HS, 11157 HS, 11162.5(a) HS, 11166 HS\*, 11173(a) HS\*, 11173(b) HS, 11173(c) HS, 11173(d) HS, 11174 HS, 11355 HS\*, 11363 HS, 11364.7(b) HS, 11366 HS\*, 11366.5(a) HS, 11366.5(b) HS, 11366.6 HS, 11366.7(b) HS, 11366.8(a) HS, 11366.8(b) HS, 11368 HS\*, 11370.6(a) HS, 11370.9(a) HS, 11370.9(b) HS, 11370.9(c) HS, 11371 HS, 11371.1 HS, 11379.6(a) HS, 11379.6(b) HS, 11382 HS\*, 11383(a) HS, 11383(b) HS, 11383(c)(1) HS, 11383(c)(2) HS, 11383(f) HS, 11383(g) HS, 11383.5(b)(1) HS, 11383.5(e) HS, 11383.7(a) HS, 11383.7(b)(1) HS, 11390 HS, 11391 HS

#### **Sex Offenses**

**Lewd or Lascivious** - 220, 266j, 288(a), 288(b)(1), 288(b)(2), 288(c)(1)\*, 288(c)(2)\*, 288.5(a)

**All Other** - 243.4(a), 243.4(b), 243.4(c)\*, 243.4(d)\*, 243.4(j), 261.5(a), 261.5(c), 261.5(d), 265, 266\*, 266a, 266b, 266d, 266e, 266f, 266g, 266h(a), 266h(b)(1), 266h(b)(2), 266i(a), 266i(a)(1), 266i(a)(2), 266i(a)(3), 266i(b)(1), 266i(b)(2), 267, 285, 288.2(a)(1)\*, 288.2(a)(2)\*, 288.2(b), 288.3, 288.3(a), 288.4(a)(2), 288.4(b), 289.6(a)\*, 289.6(a)(2), 290(b)\*, 290.002\*, 290.006\*, 290.010\*, 290.011(a)\*, 290.011(b)\*, 290.011(c)\*, 290.011(d)\*, 290.011(f)\*, 290.012(a)\*, 290.012(b)\*, 290.012(c)\*, 290.013(a)\*, 290.013(b), 290.014\*, 290.015\*, 290.018(b), 290.018(d)\*, 290.018(f)\*, 290.018(g)\*, 311.1(a), 311.10(a)\*, 311.11(a)\*, 311.11(b), 311.11(c)(1)\*, 311.11(c)(2)\*, 311.2(a)\*, 311.2(b), 311.2(c)\*, 311.2(d), 311.3(a)\*, 311.3(b)(1)\*, 311.3(b)(2)\*, 311.3(b)(3)\*, 311.3(b)(4)\*, 311.3(b)(5)\*, 311.3(b)(6)\*, 311.4(a)\*, 311.4(b), 311.4(c), 311.5\*, 311.7\*, 313.1(a)\*, 313.1(b)\*, 313.1(c)(1)\*, 313.1(c)(2)\*, 314.1\*, 647f, 647.6(a)(1)\*, 647.6(a)(2)\*, 647.6(b), 647.6(c)(1), 647.6(c)(2), 729(a)\*

**Driving Under the Influence** - 655(f) HN, 23153(a) VC\*, 23153(b) VC\*, 23153(d) VC, 23153(f) VC\*, 23153(g) VC\*, 23550(a) VC\*, 23550.5(a) VC\*

**Hit-and-Run** - 20001(a) VC, 20001(b)(1) VC\*, 20001(b)(2) VC\*

**Weapons** - 171b(a)(1), 171b(a)(2)\*, 171b(a)(3), 171b(a)(4)\*, 171b(a)(5)\*, 171b(a)(6)\*, 171c, 171d(a)\*, 171d(b)\*, 186.28(a)\*, 626.9(b)\*, 626.9(d), 626.9(h), 626.9(i), 626.95(a)\*, 626.10(a)(1)\*, 626.10(b)\*, 4502(a), 4574(a), 4574(b), 4502(b), 8101(a) WI, 8101(b) WI, 8103(a)(1) WI, 8103(f)(1) WI, 8103(i) WI\*, 12761 HS\*, 18710(a)\*, 18720, 18730, 18745, 19100\*, 19200(a)\*, 20310\*, 20410\*, 20510\*, 20610\*, 20710\*, 20910\*, 21110\*, 21310\*, 21810\*, 22011\*, 22210\*, 22410\*, 22810(a)\*, 22810(c)\*, 22810(d)\*, 22810(e)(1)\*, 22810(g)(1)\*, 22810(g)(2), 23900, 24310\*, 24410\*, 24510\*, 24610\*, 24710\*, 25100(a)\*, 25300(a), 25400(a)(1)\*, 25400(a)(2)\*, 25400(a)(3)\*, 25400(c)(1), 25400(c)(2), 25400(c)(3), 25400(c)(4), 25400(c)(5)\*, 25400(c)(6)\*, 25400(c)(6)(b)\*, 25800(a)\*, 25850(a), 25850(c)(1), 25850(c)(2), 25850(c)(3), 25850(c)(4), 25850(c)(5)\*, 25850(c)(6)\*, 26100(b)\*, 26100(c), 26100(d)\*, 27500(a), 27500(b)\*, 27505(a)\*, 27515\*, 27520\*, 27545\*, 28210(a)(1)\*, 29610\*, 29650\*, 29800(a)(1), 29800(b), 29805\*, 29815(a)\*, 29820(b)\*, 29825(a)\*, 29900(a)(1), 29900(b)(1), 30210(a)\*, 30210(b)\*, 30305(a)(1)\*, 30315\*, 30320, 30600(a), 30605(a)\*, 30725(b), 31500\*, 32310\*, 32625(a), 32625(b), 32900\*, 33210, 33215\*, 33410, 33600\*

**Escape** - 107, 109, 110, 836.6(a)\*, 836.6(b)\*, 871(b) WI, 1026.4(a), 1152(b) WI, 1768.7(a) WI, 1768.7(b) WI, 2042, 3002 WI, 4011.7\*, 4530(a), 4530(b), 4530(c), 4532(a)(1), 4532(a)(2), 4532(b)(1), 4532(b)(2), 4533, 4534, 4535, 4536(a), 4550.1, 4550.2, 7326 WI

**Bookmaking** - 337a.1, 337a.2, 337a.3, 337a.4, 337a.5, 337a.6, 337i

#### **All Other Felony Offenses**

**MISDEMEANOR-LEVEL ARREST OFFENSES**

**Manslaughter–Misd.** - 191.5(b)\*, 192(c)(1)\*, 192(c)(2), 192.5(b), 192.5(c)\*, 192.5(d)

**Assault and Battery** – 69\*, 71\*, 76(a)\*, 140(a)\*, 147, 148(a)(1), 148(b)\*, 148(d)\*, 148.1(a)\*, 148.10(a)\*, 148.2.1, 148.2.2, 148.2.3, 148.2.4, 148.3(a), 148.4(a)(1), 148.4(a)(2), 149\*, 151(a)(1), 218.1\*, 219.2\*, 219.3, 240, 241(a), 241(b), 241(c), 241.1\*, 241.2(a), 241.3(a), 241.4, 241.5(a), 241.6, 242\*, 243(a), 243(b), 243(c)(1)\*, 243(c)(2)\*, 243(d)\*, 243(e)(1), 243.10(a), 243.2(a)(1), 243.25, 243.3\*, 243.35(a), 243.6\*, 243.65(a), 243.8(a), 243.9(a)\*, 244.5(b)\*, 244.5(c)\*, 245(a)(1)\*, 245(a)(2)\*, 245(a)(4)\*, 246\*, 246.3(a)\*, 246.3(b), 247.5\*, 248, 273a(a)\*, 273a(b), 273d(a), 273.5(a)\*, 273.5(f)(1)\*, 273.5(f)(2)\*, 368(b)(1)\*, 368(c), 374c, 375(a)\*, 375(b), 383, 402a, 417(a)(1), 417(a)(2), 417(b)\*, 417(c)\*, 417.25(a), 417.26(a), 417.4, 422(a)\*, 422.6(a), 423.2(a), 423.2(b), 423.2(c), 423.2(d), 1768.85(a) WI\*, 2652, 11414(a), 11414(c), 11418.1\*, 11418.5(a)\*, 12680 HS, 15656(b) WI, 20170(a)

**Burglary–Misd.** - 459\*, 459.5\*, 460(b)\*

**Petty Theft** - 368(d)\*, 368(e)\*, 463(c), 484(a)\*, 484(b)\*, 484b\*, 484.1(a)\*, 485\*, 487(a)\*, 487(b)(2)\*, 487(b)(3)\*, 487(c)\*, 487a(a)\*, 487a(b)\*, 487a(c)\*, 487c, 487f, 487i\*, 487j\*, 488, 490, 490.1(a), 490.2\*, 490.5(a), 490.7(b)(1), 490.7(b)(2), 490.7(b)(3), 490.7(b)(4), 496c\*, 499b(b), 502.5\*, 530\*, 530.5(a)\*, 530.5(c)(1)\*, 530.5(c)(2)\*, 530.5(c)(3)\*, 530.5(d)(1)\*, 530.5(d)(2)\*, 530.5(e), 532(a)\*, 538\*, 565, 642\*, 666(a)\*, 666(b)\*, 8726 HS, 22435.1 BP, 22435.2 BP, 22435.2(a) BP, 22435.2(b) BP, 22435.2(c), 22435.2(e) BP, 22435.2(f) BP, 22435.11(a) BP, 22435.12 BP, 22753(a) BP\*, 41950(a) PR

**Other Theft** - Includes approximately 200 statute codes that can be identified upon request.

**Checks and Access Cards** - 112(a), 470(a)\*, 470(b)\*, 470(d)\*, 470a\*, 472, 475(a)\*, 475(b)\*, 475(c)\*, 476\*, 476a(a)\*, 476a(b)\*, 484e(a), 484e(c), 484e(d)\*, 484f(b)\*, 484g, 484g(a)\*, 484g(b)\*, 484h(a)\*, 484h(b)\*, 484i(a), 484i(c)\*, 484j

**Drug Offenses**

**Marijuana** - 11357(b) HS, 11357(c) HS, 11357.5(a) HS, 11358(c) HS, 11359(b) HS, 11360(a) HS\*, 11362.4(c) HS, 11362.77(a) HS, 34014(a) BP, 34016(b) BP, 34016(d) BP, 34016(e) BP

**Other Drugs** - 377, 379, 647(f), 2241 BP, 2242.1(a) BP, 2762(e) BP, 2878.5(a) BP, 4051 BP, 4059(a) BP, 4060 BP\*, 4077(a) BP, 4141 BP, 4142 BP, 4148 BP, 4149 BP, 4163 BP, 4323 BP, 4324(a) BP\*, 4324(b) BP\*, 4325(a) BP, 4326(a) BP, 4326(b) BP, 4331(a) BP, 4332 BP, 11100(g)(1) HS, 11100(g)(2) HS, 11100(g)(3) HS, 11100.1(a) HS, 11104(c) HS, 11104.5 HS, 11106(j) HS\*, 11150 HS, 11151 HS, 11157 HS\*, 11159 HS, 11161(a) HS, 11162.5(b), 11162.6(c) HS, 11166 HS\*, 11170 HS, 11171 HS, 11172 HS, 11173(a) HS\*, 11175 HS, 11180 HS, 11190 HS, 11207 HS, 11217 HS, 11350(a) HS\*, 11350(b) HS\*, 11352.1(b) HS, 11355 HS\*, 11364(a) HS, 11364.5(a) HS, 11364.5(b) HS, 11364.7(a) HS, 11364.7(c) HS, 11365(a) HS, 11366 HS\*, 11366.5 (a) HS, 11368 HS\*, 11375(b)(l) HS\*, 11375(b)(2) HS, 11375.5(a) HS, 11377(a) HS\*, 11382 HS\*, 11391 HS, 11473.5 HS, 11532(a) HS, 11550(a) HS, 11594 HS, 109575 HS, 109580 HS

**Indecent Exposure** - 314.1\*, 314.2

**Annoying Children** - 261.5(b), 261.5(c), 261.5(d), 286(b)(1)\*, 288(c)(1)\*, 288a(b)(1), 288.4(a)(1), 289(h)\*, 647.6(a)(1), 647.6(a)(2)

**Obscene Matter** – 288.2(a)(1)\*, 288.2(a)(2)\*, 311.1(a)\*, 311.10(a)\*, 311.11(a), 311.11(c)(1)\*, 311.11(c)(2)\*, 311.2(a)\*, 311.2(c)\*, 311.3(a)\*, 311.3(b), 311.3(b)(1)\*, 311.3(b)(2)\*, 311.3(b)(3)\*, 311.3(b)(4)\*, 311.3(b)(5)\*, 311.3(b)(6)\*, 311.4(a)\*, 311.5\*, 311.6, 311.7\*, 313.1(a)\*, 313.1(b)\*, 313.1(c)(1)\*, 313.1(c)(2), 313.1(e)

**Lewd Conduct** - 288(c)(2)\*, 647(a), 647(d), 647(i), 647(j)(1), 647(j)(2), 647(j)(3)(a), 647(j)(4)(a), 647(j)(4)(b), 647(l)(1), 647(l)(2), 653b(a)

**Prostitution** - 266\*, 315, 316, 647(b), 653.22(a), 653.23(a)(1), 653.23(a)(2), 25601 BP

**Contribute to Delinquency of Minor** - 272, 272(a)(1), 272(b)(1), 273i(a)

**Drunk** - 647(f)

**Liquor Laws** - 172a, 172b.1, 172d.1, 172g.1, 172l, 303, 303a, 307, 347b, 397, 11200, 23224(a) VC, 23224(b) VC, 23300 BP, 23301 BP, 25177 BP, 25351 BP, 25602(a) BP, 25604 BP, 25606 BP, 25607(a) BP, 25608 BP, 25609 BP, 25612.5(c)(3) BP, 25631 BP, 25632 BP, 25657(a) BP, 25657(b) BP, 25658(a) BP, 25658(b) BP, 25658(c) BP, 25659.5(a) BP, 25659.5(c) BP, 25659.5(d) BP, 25660.5 BP, 25661(a) BP, 25662(a) BP, 25663(a) BP, 25663(b) BP, 25664 BP, 25665 BP, 120305 HS

**Disorderly Conduct** - 647(c), 647(e), 647(h), 647b, 653b(a)

**Disturbing the Peace** - 171f.2, 302(a), 403, 404(a), 404.6(a), 404.6(c)\*, 405, 406, 407, 408, 409, 415(1), 415(2), 415(3), 415.5(a)(1), 415.5(a)(2), 415.5(a)(3), 416(a), 602.10, 602.11(a), 626.2, 626.4(d), 626.6(a), 626.7(a), 626.8(a)(1), 626.8(a)(2), 626.8(a)(3), 626.81(a), 626.85(a)(1), 640(d)(1), 653c(a), 653c(b), 653m(a), 653m(b), 653x(a), 727, 9051 GC, 11460(a)

**Malicious Mischief** - 625b(a), 10750(a) VC, 10851.5 VC, 10852 VC, 10853 VC, 10854 VC, 28051 VC, 28051.5 VC

**Vandalism** - 422.6(b), 423.2(e), 423.2(f), 555.1, 587a, 587.1(a), 588b, 590, 591.5, 592(a), 594(a)(1)\*, 594(a)(2)\*, 594(a)(3)\*, 594(b)(1)\*, 594(b)(2)(a), 594(b)(2)(b), 594.3(a)\*, 594.35(a)\*, 594.4(a)\*, 603, 604, 605.1, 605.2, 605.3, 607, 615, 616, 618, 621\*, 622, 622 1/2, 623(a), 623(a)(1), 640(d)(5), 640.5(b)(1), 640.5(c)(1), 640.7, 640.8, 11411(a), 11411(b), 11411(c)\*, 11411(d)\*, 23110(a) VC, 27491.3 GC, 38318(a) VC, 38319 VC

**Trespassing** - 171f.1, 369g(a), 369i(a), 369i(b), 398 MV, 409.5(c), 554(a), 554(b), 554(c), 554(d), 554(e), 554(f), 554(g), 554(h), 554(i), 555, 558, 587b, 593b, 602, 602(a), 602(b), 602(c), 602(d), 602(e), 602(f), 602(g), 602(h)(1), 602(i), 602(j), 602(k), 602(l)(1), 602(l)(2), 602(l)(3), 602(l)(4), 602(m), 602(n), 602(o), 602(o)(1), 602(o)(2), 602(p), 602(q), 602(r), 602(s), 602(t)(1), 602(u)(1), 602(v)(1), 602.1(a), 602.1(b), 602.4, 602.5, 602.5(a), 602.5(b), 602.6, 602.8(a), 602.9(a), 602.9(b), 627.2, 627.7(a)(1), 627.8, 634\*, 1583 FG, 27174.2 SH, 32210 EC, 32211 EC

**Weapons** - 136.2(a)(7)(b)2, 171b(a)(2)\*, 171b(a)(4)\*, 171b(a)(5)\*, 171b(a)(6)\*, 171d(a)\*, 171d(b)\*, 171.5(c)(1), 171.5(c)(2), 171.5(c)(3), 171.5(c)(4), 171.5(c)(5), 171.5(c)(6), 171.5(c)(7), 171.5(c)(8), 171.5(c)(9), 171.5(c)(10), 171.5(c)(11), 171.5(c)(12), 186.28(a)\*, 468, 626.10(a)(1)\*, 626.10(a)(2), 626.10(b)\*, 626.10(i), 626.9(b)\*, 626.95(a)\*, 4574(c), 8103(i) WI\*, 12761 HS\*, 17500, 17505, 17510(a)(1), 17510(a)(2), 17510(a)(3), 17512, 18205, 18710(a)\*, 19100\*, 19200(a)\*, 19910, 19915, 20010, 20160(a), 20165, 20310\*, 20410\*, 20510\*, 20610\*, 20710\*, 20810(a), 20910\*, 21110\*, 21310\*, 21510(a), 21510(b), 21510(c), 21710, 21810\*, 22011\*, 22210\*, 22410\*, 22610(a), 22610(b), 22610(c)(1), 22610(d), 22615(a), 22615(b), 22810(a)\*, 22810(b), 22810(c)\*, 22810(d)\*, 22810(e)(1)\*, 22810(e)(3), 22810(g)(1)\*, 22815(a), 22900, 22910(a), 23920, 24310\*, 24410\*, 24510\*, 24610\*, 24710\*, 25100(a)\*, 25100(b), 25100(c), 25135, 25200(a), 25200(b), 25400(a)(1)\*, 25400(a)(2)\*, 25400(a)(3)\*, 25400(c)(5)\*, 25400(c)(6)\*, 25400(c)(6)(b)\*, 25400(f), 25800(a)\*, 25850(a), 25850(c)(5)\*, 25850(c)(6)\*, 26100(a), 26100(b)\*, 26100(d)\*, 26180(a), 26350(a)(2), 26400(a), 26500(a), 27500(b)\*, 27505(a)\*, 27515\*, 27520\*, 27545\*, 28050, 28210(a)(1)\*, 29010(a), 29610\*, 29650\*, 29805\*, 29815(a)\*, 29820(b)\*, 29825(a)\*, 29825(b), 30210(a)\*, 30210(b)\*, 30300(a)(1), 30300(a)(3), 30305(a)(1)\*, 30305(b)(1), 30306(a), 30310(a), 30315\*, 30342, 30605(a)\*, 30610(a), 31500\*, 31615(a)(1), 31620, 32310\*, 32900\*, 33215\*, 33600\*

**Driving Under the Influence** - 655(b) HN, 655(c) HN, 655(d) HN, 655(e) HN, 655(f) HN, 23152(a) VC, 23152(b) VC, 23152(c) VC, 23152(d) VC, 23152(e) VC, 23152(f) VC, 23152(g) VC, 23153(a) VC\*, 23153(b) VC\*, 23153(f) VC\*, 23153(g) VC\*, 23247(a) VC, 23247(b) VC, 23247(c) VC, 23247(d) VC, 23247(e) VS, 23546(a) VC, 23550(a) VC\*, 23550.5(a) VC\*, 23573(i) VC

**Glue Sniffing** - 380(a), 381(a), 381(b), 381b, 381c(b), 647(f)

**Hit-and-Run** - 20001(b)(1) VC\*, 20001(b)(2) VC\*, 20002(a)(1) VC, 20002(a)(2) VC, 20002(b) VC

**Joy Riding** - 487(d)(1)\*, 499b(a), 10851(a) VC\*

**Selected Traffic Violations** - 23103(a) VC, 23103(b) VC, 23104(a) VC, 23105(a) VC\*, 23109(a) VC\*, 23109(b) VC, 23109(c) VC, 23109(d) VC, 23109.1 VC\*, 38316 VC, 38317 VC, 40508(a) VC, 40508(b) VC, 40508(c) VC, 40519 VC, 42005(e) VC

**Gambling** - 318, 319, 320, 321, 322, 323, 324, 326, 326.5(b), 326.5(n), 330, 330a, 330b(a), 330b(1), 330c, 330.1, 330.4, 331, 335, 336, 337s(b), 337.1, 337.2, 337.5, 11300, 19921(a) BP, 19940 BP, 19941(a)(1) BP

**Nonsupport** - 270\*, 270a, 270c, 270.5(a), 270.6, 271a

#### All Other Misdemeanor Offenses

Notes: These codes are valid for 2018 data and may not be applicable for prior years.

"All Other Felony Offenses" also includes sections in the Election Code and Water Code.

"All Other Misdemeanor Offenses" also includes sections in the California Code of Regulations, City or County Ordinances, Civil Procedure Code, Election Code, Public Utilities Code, Uniform Fire Code, and Water Code.

Arrests for attempted offenses are reported in their respective categories with the exception of homicide and manslaughter, which are captured in the felony assault category.

\*These code sections can be either a felony or a misdemeanor.

## Acknowledgments

The California Department of Justice is mandated by statute to submit an annual *Crime in California* report to the Legislature. The department extends its appreciation to all the law enforcement agencies that provided complete and timely data. This report would not have been possible without their cooperation.

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California Department of Justice  
California Justice Information Services Division  
Bureau of Criminal Identification and Investigative Services  
Criminal Justice Statistics Center  
P.O. Box 903427 • Sacramento, CA 94203-4270  
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# EXHIBIT 3

# Maturation of the adolescent brain

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→ Video abstract



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<http://dvpr.es/W6umNa>

**Abstract:** Adolescence is the developmental epoch during which children become adults – intellectually, physically, hormonally, and socially. Adolescence is a tumultuous time, full of changes and transformations. The pubertal transition to adulthood involves both gonadal and behavioral maturation. Magnetic resonance imaging studies have discovered that myelinogenesis, required for proper insulation and efficient neurocybernetics, continues from childhood and the brain's region-specific neurocircuitry remains structurally and functionally vulnerable to impulsive sex, food, and sleep habits. The maturation of the adolescent brain is also influenced by heredity, environment, and sex hormones (estrogen, progesterone, and testosterone), which play a crucial role in myelination. Furthermore, glutamatergic neurotransmission predominates, whereas gamma-aminobutyric acid neurotransmission remains under construction, and this might be responsible for immature and impulsive behavior and neurobehavioral excitement during adolescent life. The adolescent population is highly vulnerable to driving under the influence of alcohol and social maladjustments due to an immature limbic system and prefrontal cortex. Synaptic plasticity and the release of neurotransmitters may also be influenced by environmental neurotoxins and drugs of abuse including cigarettes, caffeine, and alcohol during adolescence. Adolescents may become involved with offensive crimes, irresponsible behavior, unprotected sex, juvenile courts, or even prison. According to a report by the Centers for Disease Control and Prevention, the major cause of death among the teenage population is due to injury and violence related to sex and substance abuse. Prenatal neglect, cigarette smoking, and alcohol consumption may also significantly impact maturation of the adolescent brain. Pharmacological interventions to regulate adolescent behavior have been attempted with limited success. Since several factors, including age, sex, disease, nutritional status, and substance abuse have a significant impact on the maturation of the adolescent brain, we have highlighted the influence of these clinically significant and socially important aspects in this report.

**Keywords:** myelinogenesis, neurocircuitry, molecular imaging, drug addiction, behavior, social adjustment

## Introduction

Significant progress has been made over the last 25 years in understanding the brain's regional morphology and function during adolescence. It is now realized that several major morphological and functional changes occur in the human brain during adolescence.<sup>1</sup> Molecular imaging and functional genomics studies have indicated that the brain remains in an active state of development during adolescence.<sup>1</sup> In particular, magnetic resonance imaging (MRI) studies have discovered that myelinogenesis continues and the neurocircuitry remains structurally and functionally vulnerable to significant increases in sex hormones (estrogen, progesterone, and testosterone) during

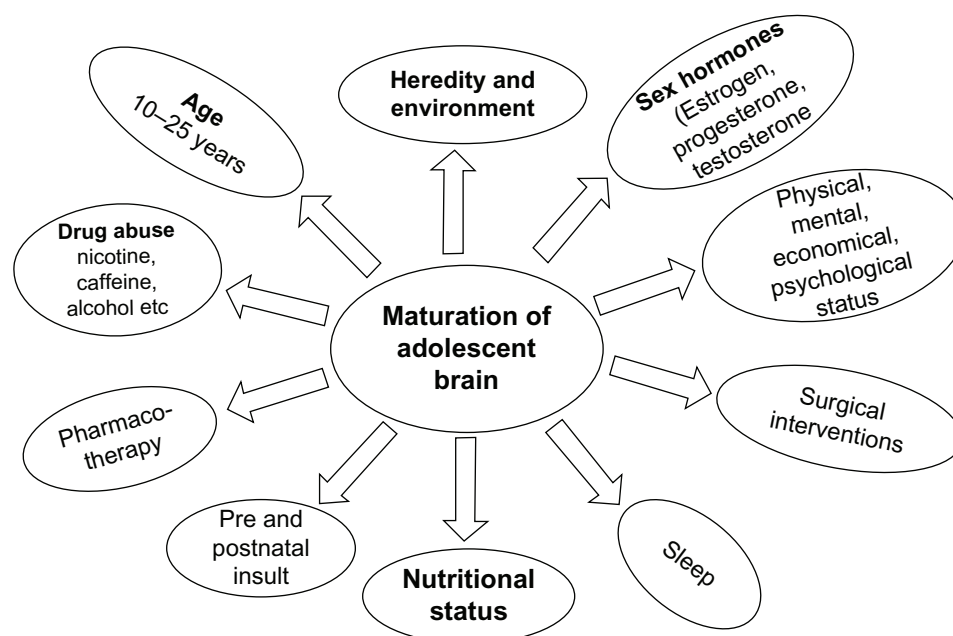
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puberty which, along with environmental input, influences sex, eating, and sleeping habits. Particularly significant changes occur in the limbic system, which may impact self-control, decision making, emotions, and risk-taking behaviors. The brain also experiences a surge of myelin synthesis in the frontal lobe, which is implicated in cognitive processes during adolescence.<sup>1</sup>

Brain maturation during adolescence (ages 10–24 years) could be governed by several factors, as illustrated in Figure 1. It may be influenced by heredity and environment, prenatal and postnatal insult, nutritional status, sleep patterns, pharmacotherapy, and surgical interventions during early childhood. Furthermore, physical, mental, economical, and psychological stress; drug abuse (caffeine, nicotine, and alcohol); and sex hormones including estrogen, progesterone, and testosterone can influence the development and maturation of the adolescent brain. MRI studies have suggested that neurocircuitry and myelinogenesis remain under construction during adolescence because these events in the central nervous system (CNS) are transcriptionally regulated by sex hormones that are specifically increased during puberty.

Neurobehavioral, morphological, neurochemical, and pharmacological evidence suggests that the brain remains under construction during adolescence,<sup>1,2,3,7,12,21,22,23,27,49</sup> as illustrated in Figure 2. Thus, the consolidation of neurocybernetics

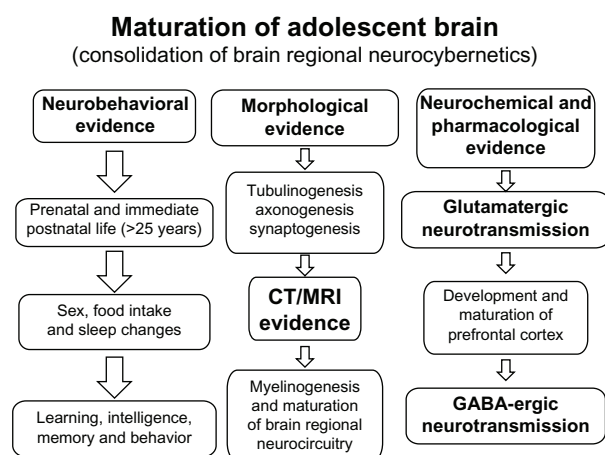
occurs during adolescence by the maturation of neurocircuitry and myelination. Although tubulinogenesis, axonogenesis, and synaptogenesis may be accomplished during prenatal and immediate postnatal life, myelinogenesis remains active during adolescent life. Neurochemical evidence suggests that glutamatergic neurotransmission is accomplished during prenatal and immediate postnatal life while gamma-aminobutyric acid (GABA)ergic neurotransmission, particularly in the prefrontal cortex, remains under construction during adolescence.<sup>2</sup> Hence, delayed development of GABAergic neurotransmission is held responsible for neurobehavioral excitement including euphoria and risk-taking behavior, whereas dopaminergic (DA)ergic neurotransmission, particularly in the prefrontal area, is developmentally regulated by sex hormones and is implicated in drug-seeking behavior during adolescence;<sup>3</sup> thus, brain development in critical areas is an ongoing process during adolescence. Indeed, adolescents are risk-taking and novelty-seeking individuals and they are more likely to weigh positive experiences more heavily and negative experiences less so than adults. This behavioral bias can lead to engagement in risky activities like reckless driving, unprotected sex, and drug abuse.<sup>1–3</sup> In fact, most drug addictions initiate during adolescence, and early drug abuse is usually associated with an increased incidence of physical tolerance and dependence. The hormonal changes



**Figure 1** Factors influencing adolescent brain maturation.

**Notes:** Brain maturation is influenced by heredity and environment, prenatal and postnatal insult, nutritional status, sleep patterns, pharmacotherapy, and surgical interventions during early childhood. Furthermore, physical, mental, economical, and psychological stress; drug abuse (caffeine, nicotine, and ethanol); and sex hormones, including estrogen, progesterone, and testosterone influence the development and maturation of the adolescent brain. MRI studies have suggested that neurocircuitry and myelinogenesis remain under construction during adolescence because these events in the CNS depend on sex hormones that are specifically increased during puberty.

**Abbreviations:** CNS, central nervous system; MRI, magnetic resonance imaging.



**Figure 2** A diagram illustrating various stages of human brain development.

**Notes:** Several neurobehavioral, morphological, neurochemical, and pharmacological evidences suggest that the brain remains under construction during adolescence.<sup>1,2,3,7,12,21,22,23,25,42</sup> Tubulinogenesis, axonogenesis, and synaptogenesis may be accomplished during prenatal and immediate postnatal life, yet myelinogenesis remains active during adolescent life. Furthermore, glutamatergic neurotransmission is accomplished during prenatal and immediate postnatal life, while GABAergic neurotransmission in the prefrontal cortex remains under construction. Delayed development of GABAergic neurotransmission among adolescents is implicated in neurobehavioral excitement and risk-taking behavior.

**Abbreviations:** CT, computed tomography; GABAergic, gamma amino butyric acid ergic; MRI, magnetic resonance imaging.

in puberty contribute to physical, emotional, intellectual, and social changes during adolescence. These changes do not just induce maturation of reproductive function and the emergence of secondary sex characteristics, but they also contribute to the appearance of sex differences in nonreproductive behaviors. Physical changes, including accelerated body growth, sexual maturation, and development of secondary sexual characteristics occur simultaneously along with social, emotional, and cognitive development during adolescence. Furthermore, the adolescent brain evolves its capability to organize, regulate impulses, and weigh risks and rewards; however, these changes can make adolescents highly vulnerable to risk-taking behavior. Thus, brain maturation is an extremely important aspect of overall adolescent development, and a basic understanding of the process might aid in the understanding of adolescent sexual behavior, pregnancy, and intellectual performance issues.

There are several other crucial developmental aspects of adolescence that are associated with changes in physical, cognitive, and psychosocial characteristics, as well as with attitudes toward intimacy and independence, and these may also influence brain maturation; these will also be discussed in the present report. Furthermore, we emphasize the deleterious effects of drug abuse and the clinical significance of nutrition from fish oils and fatty acids in adolescent brain maturation.

## Neuronal plasticity and neurocircuitry

The term “plasticity” refers to the possible significant neuronal changes that occur in the acquisition of new skills.<sup>1–3</sup> These skills initiate the process of elaboration and stabilization of synaptic circuitry as part of the learning process. Plasticity permits adolescents to learn and adapt in order to acquire independence; however, plasticity also increases an individual’s vulnerability toward making improper decisions because the brain’s region-specific neurocircuitry remains under construction, thus making it difficult to think critically and rationally before making complex decisions. Moreover, the neurocircuitry may be forged, refined or weakened, and damaged during plasticity. Thus, neuronal proliferation, rewiring, dendritic pruning, and environmental exposure are important components of brain plasticity during adolescence. A significant portion of brain growth and development occurring in adolescence is the construction and strengthening of regional neurocircuitry and pathways; in particular, the brain stem, cerebellum, occipital lobe, parietal lobe, frontal lobe, and temporal lobe actively mature during adolescence. The frontal lobes are involved in movement control, problem solving, spontaneity, memory, language, initiation, judgment, impulse control, and social and sexual behavior. Furthermore, the prefrontal cortex, which is implicated in drug-seeking behavior, remains in a process of continuous reconstruction, consolidation, and maturation during adolescence.

## The adolescent brain

It is well established that various morphological and physiological changes occur in the human brain during adolescence. The term “adolescence” is generally used to describe a transition stage between childhood and adulthood. “Adolescence” also denotes both teenage years and puberty, as these terms are not mutually exclusive. The second surge of synaptogenesis occurs in the brain during the adolescent years. Hence, adolescence is one of the most dynamic events of human growth and development, second only to infancy in terms of the rate of developmental changes that can occur within the brain. Although there is no single definition of adolescence or a set age boundary, Kaplan<sup>4</sup> has pointed out that puberty refers to the hormonal changes that occur in early youth, and adolescence may extend well beyond the teenage years. In fact, there are characteristic developmental changes that almost all adolescents experience during their transition from childhood to adulthood. It is well established that the brain undergoes a “rewiring” process that is not complete until approximately 25 years of age.<sup>5</sup> This discovery

has enhanced our basic understanding regarding adolescent brain maturation and it has provided support for behaviors experienced in late adolescence and early adulthood. Several investigators consider the age span 10–24 years as adolescence, which can be further divided into substages specific to physical, cognitive, and social–emotional development.<sup>5,6</sup> Hence, understanding neurological development in conjunction with physical, cognitive, and social–emotional adolescent development may facilitate the better understanding of adolescent brain maturation, which can subsequently inform proper guidance to adolescents.<sup>7</sup>

Longitudinal MRI studies have confirmed that a second surge of neuronal growth occurs just before puberty.<sup>1,7</sup> This surge is similar to that noticed during infancy and consists of a thickening of the grey matter. Following neuronal proliferation, the brain rewires itself from the onset of puberty up until 24 years old, especially in the prefrontal cortex. The rewiring is accomplished by dendritic pruning and myelination. Dendritic pruning eradicates unused synapses and is generally considered a beneficial process, whereas myelination increases the speed of impulse conduction across the brain's region-specific neurocircuitry. The myelination also optimizes the communication of information throughout the CNS and augments the speed of information processing. Thus, dendritic pruning and myelination are functionally very important for accomplishing efficient neurocybernetics in the adolescent brain.

During adolescence, the neurocircuitry strengthens and allows for multitasking, enhanced ability to solve problems, and the capability to process complex information. Furthermore, adolescent brain plasticity provides an opportunity to develop talents and lifelong interests; however, neurotoxic insult, trauma, chronic stress, drug abuse, and sedentary lifestyles may have a negative impact during this sensitive period of brain maturation.<sup>8,9</sup>

Out of several neurotransmitters in the CNS, three play a significant role in the maturation of adolescent behavior: dopamine, serotonin, and melatonin.<sup>3,8,9</sup> Dopamine influences brain events that control movement, emotional response, and the ability to experience pleasure and pain. Its levels decrease during adolescence, resulting in mood swings and difficulties regulating emotions. Serotonin plays a significant role in mood alterations, anxiety, impulse control, and arousal. Its levels also decrease during adolescence, and this is associated with decreased impulse control. Lastly, melatonin regulates circadian rhythms and the sleep–wake cycle. The body's daily production of melatonin increases the requirement for sleep during adolescence.<sup>8,9</sup>

## Behavioral problems and puberty

It is now known that hormones are not the only explanation for erratic adolescent behavior; hence, investigators are now trying to establish the exact nature of the interrelationship between pubertal processes and adolescent brain maturation. Dahl has explained three main categories of brain changes related to puberty: (1) changes that precede puberty; (2) changes that are the consequence of puberty; and (3) changes that occur after puberty is over.<sup>9</sup> The timing of these changes may underlie many aspects of risk-taking behavior. These changes, which are the consequence of puberty, occur primarily in the brain regions closely linked to emotions, arousal, motivation, as well as to appetite and sleep patterns. Brain changes independent of puberty are those related to the development of advanced cognitive functioning.

Animal studies have shown that sex hormones (estrogen, progesterone, and testosterone) are critically involved in myelination.<sup>12</sup> These studies have provided a relationship between sex hormones, white matter, and functional connectivity in the human brain, measured using neuroimaging. The results suggest that sex hormones organize structural connections and activate the brain areas they connect. These processes could underlie a better integration of structural and functional communication between brain regions with age. Specifically, ovarian hormones (estradiol and progesterone) may enhance both corticocortical and subcortical functional connectivity, whereas androgens (testosterone) may decrease subcortical functional connectivity but increase the functional connectivity between subcortical brain areas. Therefore, when examining brain development and aging, or when investigating the possible biological mechanisms of neurological diseases, the contribution of sex hormones should not be ignored.<sup>10</sup>

A recent study has described how the social brain develops during adolescence.<sup>10</sup> Adolescence is a time characterized by change – hormonally, physically, psychologically, and socially. Functional MRI studies have demonstrated the developmental changes that occur during adolescence among white matter and grey matter volumes in regions within the “social brain.”<sup>1,7,12</sup> Activity in the mesolimbic brain regions also showed changes between adolescence and adulthood during social cognition tasks. A developmental clock – along with the signals that provide information on somatic growth, energy balance, and season of the year – times the awakening of gonadotropin-releasing hormone (GnRH) neurons at the onset of puberty. High-frequency GnRH release results in the disinhibition and activation of GnRH neurons at the onset



of puberty, leading to gametogenesis and an increase in sex hormone secretion. Sex hormones and adrenocorticotrophic hormones both remodel and activate neurocircuits during adolescent brain development, leading to the development of sexual salience of sensory stimuli, sexual motivation, and expression of copulatory behavior. These influences of hormones on reproductive behavior depend on changes in the adolescent brain that occur independently of gonadal maturation. Reproductive maturity is therefore the product of developmentally timed, brain-driven, and recurrent interactions between steroid hormones and the adolescent nervous system.<sup>11,12</sup>

## Limbic system

The limbic system is a group of structures located deep within the cerebrum. It is composed of the amygdala, the hippocampus, and the hypothalamus. These brain regions are involved in the expression of emotions and motivation, which are related to survival. The emotions include fear, anger, and the fight or flight response. The limbic system is also involved in feelings of pleasure that reward behaviors related to species survival, such as eating and sex. In addition, the limbic system regulates functions related to memory storage and retrieval of events that invoke a strong emotional response. Neuroimaging studies have revealed that when interacting with others and making decisions, adolescents are more likely than adults to be swayed by their emotions.<sup>12-16</sup> In addition, adolescents often read others' emotions incorrectly. These studies involved comparing a teen brain to an adult brain determined that adolescents' prefrontal cortices are used less often during interpersonal interactions and decision making than their adult counterparts. In fact, adolescents relied more on the emotional region of their brains when reading others' emotions, which is more impulsive when compared to a logical or measured interpretation. Thus, an understanding of how the limbic system and the prefrontal cortex are used has provided a partial explanation for certain characteristics of adolescents and adolescent behaviors, such as quickness to anger, intense mood swings, and making decisions on the basis of "gut" feelings. Because adolescents rely heavily on the emotional regions of their brains, it can be challenging to make what adults consider logical and appropriate decisions, as illustrated in Figure 3.

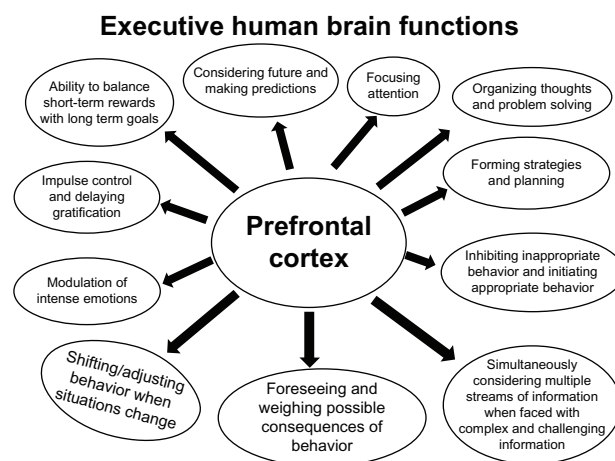
## Prefrontal cortex

Recently, investigators have studied various aspects of the maturation process of the prefrontal cortex of adolescents.<sup>17,18</sup> The prefrontal cortex offers an individual the capacity to

exercise good judgment when presented with difficult life situations. The prefrontal cortex, the part of the frontal lobes lying just behind the forehead, is responsible for cognitive analysis, abstract thought, and the moderation of correct behavior in social situations. The prefrontal cortex acquires information from all of the senses and orchestrates thoughts and actions in order to achieve specific goals.

The prefrontal cortex is one of the last regions of the brain to reach maturation, which explains why some adolescents exhibit behavioral immaturity. There are several executive functions of the human prefrontal cortex that remain under construction during adolescence, as illustrated in Figures 3 and 4. The fact that brain development is not complete until near the age of 25 years refers specifically to the development of the prefrontal cortex.<sup>19</sup>

MRI studies have discovered that developmental processes tend to occur in the brain in a back-to-front pattern, explaining why the prefrontal cortex develops last. These studies have also shown that teens have less white matter (myelin) in the frontal lobes compared to adults, and that myelin in the frontal lobes increases throughout adolescence.<sup>1,7,21</sup> With more myelin comes the growth of important neurocircuitry, allowing for better flow of information between brain regions.<sup>20,21</sup> These findings have led to the concept of frontalization, whereby the prefrontal cortex develops in order to regulate the behavioral responses initiated by the limbic structures. During adolescence, white matter increases in the corpus callosum, the bundle of

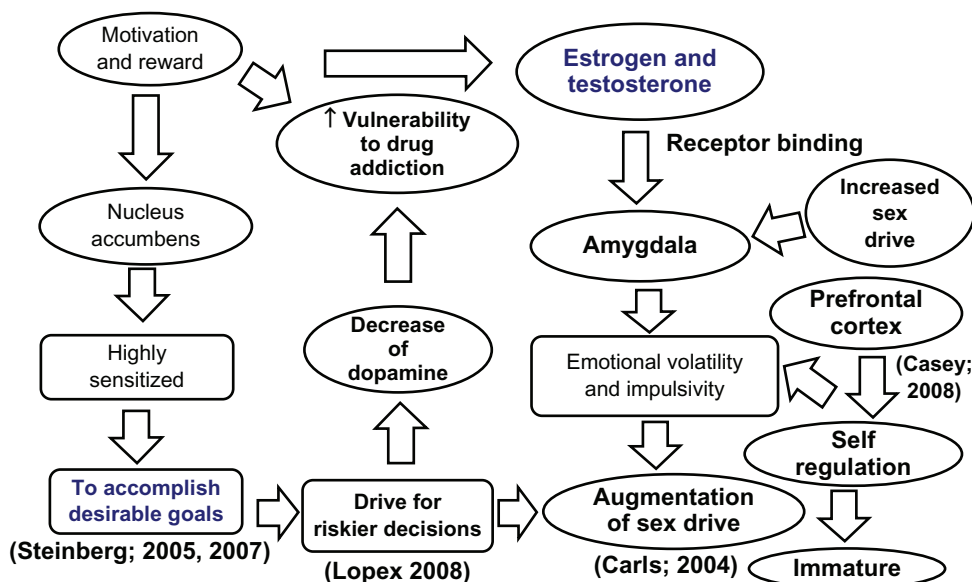


**Figure 3** A diagram illustrating the developmental regulation of executive functions by the prefrontal cortex, which remains under construction during adolescence.

**Notes:** Several executive brain functions are governed by the prefrontal cortex, which remains in a state of active maturation during adolescence. These complex brain functions are regulated by the prefrontal cortex as illustrated in this figure (based on the original discoveries by Giedd and Steinberg).<sup>1,21-23,25</sup> Due to immature functional areas in the prefrontal cortex, adolescent teens may take part in risk seeking behavior including unprotected sex, impaired driving, and drug addiction.



(management of emotions and motivation)

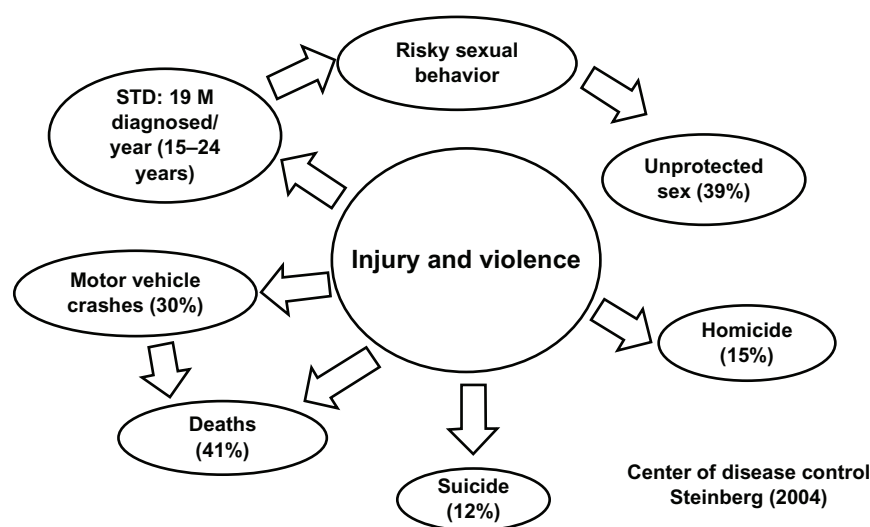


**Notes:** The nucleus accumbens and amygdala are the two most prominent parts of the central nervous system involved in riskier behavior and increased sex drive among teenage adolescents. The nucleus accumbens is highly sensitized to accomplish desirable goals. A decrease in dopamine in the nucleus accumbens is involved in increased vulnerability to drug addiction and risky decisions. Sex hormones (estrogen and testosterone) bind with their receptors to induce increased sex drive and emotional volatility and impulsivity. Due to an immature prefrontal cortex, adolescents also have an increased sex drive and problems in self-regulation as illustrated in this flow diagram.<sup>19,23,26,27,54</sup>

risks to test and define themselves, as risk-taking can be both beneficial and harmful. It can lead to situations where new skills are learned and new experiences can prepare them for future challenges in their lives. Risk-taking serves as a means of discovery about oneself, others, and the world at large. The proclivity for risk-taking behavior plays a significant role in adolescent development, rendering this a period of time for both accomplishing their full potential and vulnerability. Hence, acquiring knowledge regarding adolescent brain maturation can help understand why teens take risks, while keeping in mind that risk-taking behavior is a normal and necessary component of adolescence. This knowledge may help in developing physiologically and pharmacologically effective interventions that focus on reducing the negative consequences associated with risk-taking behavior among the adolescent population.<sup>22</sup>

## Risk perception

It has been established that, around the age of 12 years, adolescents decrease their reliance on concrete thinking and begin to show the capacity for abstract thinking, visualization of potential outcomes, and a logical understanding of cause and effect.<sup>23</sup> Teens begin looking at situations and deciding whether they are safe, risky, or dangerous. These aspects of



**Figure 5** Leading cause of death among adolescents (10–24 years).

**Notes:** Injury and violence are the two most common leading causes of death during adolescence. Out of 19 million adolescents (15–24 years) in the US that were diagnosed with HIV/AIDs, 39% admitted that they had unprotected sex. In addition to risky sex behavior, 30% of adolescents had been involved in motor vehicle accidents, with 41% of these linked to deaths; 12% committed suicide; and 15% were victims of homicide as illustrated in this figure (Steinberg 2004, Centers for Disease Control and Prevention).<sup>18</sup>

**Abbreviations:** AIDs, acquired immune deficiency syndrome; HIV, human immunodeficiency virus; M, million; STD, sexually transmitted disease.

development correlate with the maturation of the frontal lobe, and is marked by a shift from the development of additional neural connections to synaptic pruning, as well as by an increase in the release of hormones, all of which drive an adolescent's mood and impulsive behavior.

By the age of 15 years, there is little difference in adolescents' and adults' decision-making patterns pertaining to hypothetical situations. Teens were found to be capable of reasoning about the possible harm or benefits of different courses of action; however, in the real world, teens still engaged in dangerous behaviors, despite understanding the risks involved.<sup>22,23,59</sup> Hence, both the role of emotions and the connection between feeling and thinking need to be considered while studying the way teens make decisions.

Investigators have differentiated between "hot" cognition and "cold" cognition.<sup>24</sup> Hot cognition is described as thinking under conditions of high arousal and intense emotion. Under these conditions, teens tend to make poorer decisions. The opposite of hot cognition is cold cognition, which is critical and over-analyzing.<sup>25</sup> In cold cognition, circumstances are less intense and teens tend to make better decisions. Then, with the addition of complex feelings – such as fear of rejection, wanting to look cool, the excitement of risk, or anxiety of being caught – it is more difficult for teens to think through potential outcomes, understand the consequences of their decisions, or even use common sense.<sup>26</sup> The apparent immaturity of the connections between the limbic system,

prefrontal cortex, and the amygdala provides further support for this concept.

## Sensation seeking

The nucleus accumbens, a part of the brain's reward system located within the limbic system, is the area that processes information related to motivation and reward. Brain imaging has shown that the nucleus accumbens is highly sensitive in adolescents, sending out impulses to act when faced with the opportunity to obtain something desirable.<sup>27</sup> For instance, adolescents are more vulnerable to nicotine, alcohol, and other drug addictions because the limbic brain regions that govern impulse and motivation are not yet fully developed.<sup>28</sup> During puberty, the increases in estrogen and testosterone bind receptors in the limbic system, which not only stimulates sex drive, but also increases adolescents' emotional volatility and impulsivity. Changes in the brain's reward sensitivity that occur during puberty have also been explored. These changes are related to decreases in DA, a neurotransmitter that produces feelings of pleasure.<sup>29</sup> Due to these changes, adolescents may require higher levels of DAergic stimulation to achieve the same levels of pleasure/reward, driving them to make riskier decisions.

## Self-regulation

Self-regulation has been broadly classified as the management of emotions and motivation.<sup>30</sup> It also involves directing and controlling behavior in order to meet the challenges of

the environment and to work toward a conscious purpose. Self-regulation also entails controlling the expression of intense emotions, impulse control, and delayed gratification. As adolescents progress toward adulthood with a body that is almost mature, the self-regulatory parts of their brains are still maturing. An earlier onset of puberty increases the window of vulnerability for teens, making them more susceptible to taking risks that affect their health and development over a prolonged period.<sup>31</sup>

Behavioral control requires a great involvement of cognitive and executive functions. These functions are localized in the prefrontal cortex, which matures independent of puberty and continues to evolve up until 24 years of age. It has been suggested that, during this period, adolescents should not be overprotected, but be allowed to make mistakes, learn from their own experiences, and practice self-regulation. Parents and teachers can help adolescents through this period by listening and offering support and guidance.

Recently, Steinberg studied risk-taking behavior in teens and how this was influenced by their peers.<sup>32</sup> He used a driving simulation game in which he studied teens deciding on whether or not to run a yellow light, and found that when teens were playing alone they made safer decisions, but in the presence of friends they made riskier decisions. When teens find themselves in emotionally arousing situations, with their immature prefrontal cortices, hot cognitive thinking comes into play, and these adolescents are more likely to take riskier actions and make impulsive decisions.

## Societal influences

Mass media, community, and adult role models can also influence adolescent risk-taking behaviors. Teens are constantly exposed to emotionally arousing stimuli through multimedia, which encourages unprotected sex, substance abuse, alcohol abuse, and life-threatening activities.<sup>32,33</sup> Even neighborhoods, friends, and communities provide teens with opportunities to engage in risky behaviors, although local law enforcement authorities regulate the purchase of cigarettes, access to and acceptability of guns, and the ability to drive cars. Even adults can have trouble resisting engaging in some of these risky behaviors; however, the temptation must be much harder for teens, whose judgment and decision-making skills are still developing.<sup>34</sup>

Recent functional MRI studies have demonstrated the extent of development during adolescence in the white matter and grey matter regions within the social brain. Activity in some of these regions showed changes

between adolescence and adulthood during social cognition tasks. These studies have provided evidence that the concept of mind usage remains developing late in adolescence.<sup>1,21,33</sup>

## Substance abuse

The mechanisms underlying the long-term effects of prenatal substance abuse and its consequent elevated impulsivity during adolescence are poorly understood. Liu and Lester<sup>34</sup> have reported on developmentally-programmed neural maturation and highlighted adolescence as a critical period of brain maturation. These investigators have studied impairments in the DAergic system, the hypothalamic–pituitary–adrenal axis, and the pathological interactions between these two systems that originate from previous fetal programming in order to explain insufficient behavioral inhibition in affected adolescents. In addition, Burke<sup>35</sup> has examined the development of brain functions and the cognitive capabilities of teenagers. Specifically, these two sets of investigators have explored the effect of alcohol abuse on brain development, and the fundamental cognitive differences between adolescents and adults, and have suggested that the adultification of youth is harsh for those whose brains have not fully matured.

## Cannabis

Cannabis is the most commonly consumed drug among adolescents, and its chronic use may affect maturational refinement by disrupting the regulatory role of the endocannabinoid system.<sup>36</sup> Adolescence represents a critical period for brain development and the endocannabinoid system plays a critical role in the regulation of neuronal refinement during this period. In animals, adolescent cannabinoid exposure caused long-term impairment in specific components of learning and memory, and differentially affected emotional reactivity with milder effects on anxiety behavior and more pronounced effects on depressive behavior.<sup>37</sup> Epidemiological studies have suggested that adolescent cannabis abuse may increase their risk of developing cognitive abnormalities, psychotic illness, mood disorders, and other illicit substance abuse later in life.<sup>36,38–40</sup> Cannabis abuse in adolescence could increase the risk of developing psychiatric disorders, especially in people who are vulnerable to developing psychiatric syndromes. So far, only a few studies have investigated the neurobiological substrates of this vulnerability;<sup>56</sup> hence, further investigation is required to clarify the molecular mechanisms underlying the effect of cannabis on the adolescent brain.

## Nicotine

Recent studies have provided a neural framework to explain the developmental differences that occur within the mesolimbic pathway based on the established role of DA in addiction.<sup>41,42</sup> During adolescence, excitatory glutamatergic systems that facilitate DAergic neurotransmission are overdeveloped, whereas inhibitory GABAergic systems remain underdeveloped. DAergic pathways originate in the ventral tegmental area and terminate in the nucleus accumbens, where dopamine is increased by nicotine, but decreased during withdrawal. Thus, it has been hypothesized that adolescents display enhanced nicotine reward and reduced withdrawal via enhanced excitation and reduced inhibition of ventral tegmental area cell bodies that release DA in the nucleus accumbens.<sup>44,45</sup> Although this framework focuses on both adolescents and adults, it may also apply to the enhanced vulnerability to nicotine in adults that were previously exposed to nicotine during adolescence, suggesting that the diagnostic criteria developed for nicotine dependence in adults (based primarily on withdrawal) may be inappropriate during adolescence, when nicotine withdrawal does not appear to play a major role in nicotine use.<sup>39</sup> Furthermore, treatment strategies involving nicotine replacement may be harmful for adolescents because it may cause enhanced vulnerability to nicotine dependence later in adulthood. Adolescents that initiate tobacco abuse are more vulnerable to long-term nicotine dependence. A unifying hypothesis has been proposed based on animal studies, and it suggests that adolescents (as compared to adults) experience enhanced short-term positive effects and reduced adverse effects toward nicotine, and they also experience fewer negative effects during nicotine withdrawal.<sup>39</sup> Thus, during adolescence, the strong positive effects associated with nicotine are inadequately balanced by the negative effects that contribute to nicotine dependence in adults.

## Alcohol

Recently, the development of brain functions, the cognitive capabilities of adolescents, and the effect of alcohol abuse on brain maturation have been examined.<sup>49,50</sup> Cognitive differences between adolescents and adults suggest that the adultification of youths is deleterious for youths whose brains have not fully matured. Adolescence is the time during which most individuals first experience alcohol exposure, and binge drinking is very common during this period.<sup>29,50,43</sup> There is increasing evidence for long-lasting neurophysiological changes that may occur following exposure to ethanol during adolescence in animal models.<sup>50</sup> If alcohol exposure is

neurotoxic to the developing brain during adolescence, then understanding how ethanol affects the developing adolescent brain becomes a major public health issue. Adolescence is a critical time period when cognitive, emotional, and social maturation occurs and it is likely that ethanol exposure may affect these complex processes. During a period that corresponds to adolescence in rats, the relatively brief exposure to high levels of alcohol via ethanol vapors caused long-lasting changes in functional brain activity.<sup>51</sup> The following observations were recorded: disturbances in waking electroencephalography; a reduction in the P3 wave (P3a and P3b) component of event-related potential measurements; reductions in the mean duration of slow-wave sleep; and the total amount of time spent in slow-wave sleep – findings that are consistent with the premature sleep patterns observed during aging.<sup>50</sup>

## Sex differences

Sex differences in many behaviors, including drug abuse, have been attributed to social and cultural factors.<sup>43,46</sup> A narrowing gap in drug abuse between adolescent boys and girls supports this hypothesis;<sup>52</sup> however, some sex differences in addiction vulnerability reflect biologic differences in the neurocircuits involved in addiction. A male predominance in overall drug abuse appears by the end of adolescence, while girls develop a rapid progression from the time of the first abuse to dependence, and this represents female-based vulnerability. Recent studies have emphasized the contribution of sex differences in the function of the ascending DAergic systems, which are critical in reinforcement.<sup>3,43</sup> These studies highlight the behavioral, neurochemical, and anatomical changes that occur in the DAergic functions that are related to the addictions that occur during adolescence. In addition, these studies have presented novel findings about the emergence of sex differences in DAergic function during adolescence.<sup>43,46–48</sup> Sex differences in drinking patterns and the rates of alcohol abuse and dependence begin to emerge during the transition from late puberty to young adulthood. Increases in pubertal hormones, including gonadal and stress hormones, are a prominent developmental feature of adolescence and could contribute to the progression of sex differences in alcohol drinking behavior during puberty. Witt<sup>46</sup> reviewed experimental and correlational studies of gonadal and stress-related hormone changes, as well as their effects on alcohol consumption and the associated neurobehavioral actions of alcohol on the mesolimbic dopaminergic system. Mechanisms have been suggested by which reproductive and stress-related hormones may modulate neural circuits within the brain reward system, and these hormones may produce sex differences in terms of



alcohol consumption patterns and adolescents' vulnerability to alcohol abuse and dependence, which become apparent during the late pubertal period.

## Chemotherapy

Recently, Vázquez et al<sup>53</sup> emphasized the need for the early and accurate diagnosis of CNS complications during and after pediatric cancer treatment because of the improvement in overall survival rates related to innovative and aggressive oncologic therapies. A major concern in this issue is recognizing the radiologic features of these CNS complications. Radiologists are supposed to be familiar with the early and late effects of cancer therapy in the pediatric CNS (toxic effects, infection, endocrine or sensory dysfunction, neuropsychological impairment, and secondary malignancies) in order to provide an accurate diagnosis and to minimize morbidity. The acquisition of further knowledge about these complications will enable the development of more appropriate therapeutic decisions, effective patient surveillance, and an improved quality of life by decreasing the long-term consequences in survivors. Certain chemotherapeutic compounds and environmental agents, such as anesthetics, antiepileptics, sleep-inducing and anxiolytic compounds, nicotine, alcohol, and stress, as well as agents of infection have also been investigated quite extensively and have been shown to contribute to the etiopathogenesis of serious neuropsychiatric disorders.<sup>54</sup> All of these agents have a deleterious influence on developmental processes during the time when the brain experiences major changes in early childhood and during adulthood. Several of these agents have contributed to the structural and functional brain abnormalities that have been observed in the biomarker profiles of schizophrenia and fetal alcohol syndrome. The effects of these agents are generally permanent and irreversible.<sup>54</sup>

## Nutrition

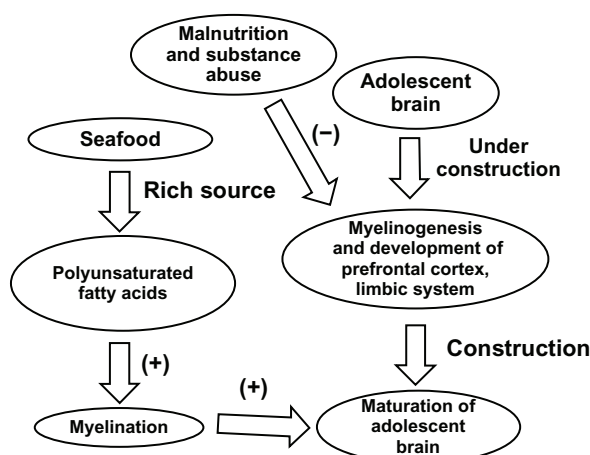
The rapid expansion of knowledge in this field, from basic science to clinical and community-based research, is expected to lead to urgently needed research in support of effective, evidence-based medicine and treatment strategies for undernutrition, overnutrition, and eating disorders in early childhood. Eating is necessary for survival and provides a sense of pleasure, but may be perturbed, leading to undernutrition, overnutrition, and eating disorders. The development of feeding in humans relies on the complex interplay between homeostatic mechanisms; neural reward systems; and adolescents' motor, sensory, and emotional capabilities. Furthermore, parenting, social factors, and food influence the development of eating behavior.

Recently, the neural development of eating behavior in children has been investigated.<sup>55</sup> Furthermore, developmentally programmed neural maturation has been discussed in order to highlight adolescence as the second most critical period of brain maturation.<sup>56</sup> These studies used impairments of the DAergic system, the hypothalamic–pituitary–adrenal axis, and pathological interactions between these two systems originating from fetal programming in a dual-system model to explain insufficient behavioral inhibition in affected adolescents.

The range of exogenous agents, such as alcohol and cocaine, which are generally likely to detrimentally affect the development of the brain and CNS defies estimation, although the accumulated evidence is substantial.<sup>57–60</sup> Pubertal age affects the fundamental property of nervous tissue excitability; excessive excitatory drive is seen in early puberty and a deficiency is seen in late puberty. It has been postulated that, with adequate fish oils and fatty acids, the risk of psychopathology can be minimized, whereas a deficiency could lead to subcortical dysfunction in early puberty, and a breakdown of cortical circuitry and cognitive dysfunctions in late puberty.<sup>61</sup> Thus, postpubertal psychoses, schizophrenia, and manic–depressive psychosis during the pubertal age, along with excitability, may be the result of continuous dietary deficiency, which may inhibit the expression of the oligodendrocyte-related genes responsible for myelogenesis. The beneficial effect of fish oils and fatty acids in schizophrenia, fetal alcohol syndrome, developmental dyslexia, attention deficit hyperactivity disorder, and in other CNS disorders supports the hypothesis that the typical diet might be persistently deficient in the affected individuals, as illustrated in Figure 6. However, the amount of fish oils and fatty acids needed to secure normal brain development and function is not known. It seems conjectural to postulate that a dietary deficiency in fish oils and fatty acids is causing brain dysfunction and death; however, all of these observations tend to suggest that a diet focusing on mainly protein is deficient, and the deficiency is most pronounced in maternal nutrition and in infancy, which might have a deleterious impact on the maturation of the adolescent brain.

## Conclusion

Neuromorphological, neurochemical, neurophysiological, neurobehavioral, and neuropharmacological evidence suggests that the brain remains in its active state of maturation during adolescence.<sup>1,7,19,21</sup> Such evidence supports the hypothesis that the adolescent brain is structurally and functionally vulnerable to environmental stress, risky behavior, drug



**Figure 6** Effect of seafood on the maturation of the adolescent brain.

**Notes:** MRI studies have provided evidence that in addition to the prefrontal cortex and limbic system, myelinogenesis and neurocircuitry remains under construction during adolescence.<sup>1,7,19,21</sup> Myelinogenesis requires precursors such as polyunsaturated fatty acids, of which many seafoods are a rich source. Hence, consuming seafood may accelerate brain maturation in adolescents. However, malnutrition and substance abuse may inhibit maturation of the adolescent brain. (+) induction; (-) inhibition.

addiction, impaired driving, and unprotected sex. Computed tomography and MRI studies also provide evidence in support of this hypothesis.<sup>19</sup>

Brain maturation occurs during adolescence due to a surge in the synthesis of sex hormones implicated in puberty including estrogen, progesterone, and testosterone. These sex hormones augment myelinogenesis and the development of the neurocircuitry involved in efficient neurocybernetics. Although tubulinogenesis, axonogenesis, and synaptogenesis can occur during the prenatal and early postnatal periods, myelinogenesis involved in the insulation of axons remains under construction in adolescence. Sex hormones also significantly influence food intake and sleep requirements during puberty. In addition to dramatic changes in secondary sex characteristics, sex hormones may also influence the learning, intelligence, memory, and behavior of adolescents.

Furthermore, it can be observed that the development of excitatory glutamatergic neurotransmission occurs earlier in the developing brain as compared to GABAergic neurotransmission, which makes the pediatric population susceptible to seizures.

The development and maturation of the prefrontal cortex occurs primarily during adolescence and is fully accomplished at the age of 25 years. The development of the prefrontal cortex is very important for complex behavioral performance, as this region of the brain helps accomplish executive brain functions.

A detailed study is required in order to determine the exact biomarkers involved, as well as the intricate influence of

diet, drugs, sex, and sleep on the maturation of the adolescent brain as discussed briefly in this report.

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## Disclosure

The authors report no conflicts of interest in this report.

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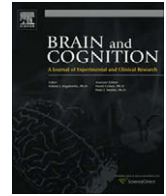
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# EXHIBIT 4



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## Brain and Cognition

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## Review Article

## A time of change: Behavioral and neural correlates of adolescent sensitivity to appetitive and aversive environmental cues

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## ABSTRACT

Adolescence is a developmental period that entails substantial changes in affective and incentive-seeking behavior relative to both childhood and adulthood, including a heightened propensity to engage in risky behaviors and experience persistent negative and labile mood states. This review discusses the emotional and incentive-driven behavioral changes in adolescents and their associated neural mechanisms, focusing on the dynamic interactions between the amygdala, ventral striatum, and prefrontal cortex. Common behavioral changes during adolescence may be associated with a heightened responsiveness to incentives and emotional cues while the capacity to effectively engage in cognitive and emotion regulation is still relatively immature. We highlight empirical work in humans and animals that addresses the interactions between these neural systems in adolescents relative to children and adults, and propose a neurobiological model that may account for the nonlinear changes in adolescent behavior. Finally, we discuss other influences that may contribute to exaggerated reward and emotion processing associated with adolescence, including hormonal fluctuations and the role of the social environment.

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## 1. Introduction

The description of adolescence as “a developmental period rife with change” may be an understatement for those of us who think back to our own experiences during this time of life, or who observe teens today (Hall, 1904). Adolescence can be defined as the phase of gradual transition between childhood and adulthood, which is overlapping yet conceptually distinct from the physical changes marking puberty and physical maturation (Ernst, Pine, & Hardin, 2006; Spear, 2000). In recent years, researchers from a broad spectrum of scientific disciplines have shown significant interest in this period of the lifespan due to its intense physical, behavioral, social, and neurological changes, and the alarming health statistics associated with this time of life.

Beyond the intellectual interest in this period as a psychological snapshot in time, research examining adolescent behavior and its associated neural changes is particularly relevant to adolescent health. In adolescence, there is a heightened propensity to engage in risky behaviors that can lead to negative outcomes, including

substance abuse, unprotected sex, inflicting harm on others, injuries, and death. According to the 2007 Youth Risk Behavior Survey (YRBS, Eaton et al., 2008) the four leading causes of death that account for 72% of adolescent mortality – motor vehicle accidents, unintentional injuries, homicide, and suicide – are preventable. Such statistics suggest that these fatalities may be attributed, in part, to poor choices or risky actions (e.g., accidents, injuries) and/or heightened emotionality (e.g., suicide) underscoring the importance of understanding the biological basis of emotional and incentive-seeking behavior of adolescents, the focus of the present review.

## 2. Storm and stress? Affective changes during adolescence

Adolescence has been considered, almost by definition, as a period of heightened stress (Spear, 2000) due to the array of transitions being experienced concomitantly, including physical maturation, drive for independence, increased salience of social and peer interaction, and brain development (Blakemore, 2008; Casey, Getz, & Galvan, 2008; Casey, Jones, & Hare, 2008). Although new-found independence and social engagement can be stimulating and challenging in a positive way, it may also lead to feelings of being overwhelmed by change, which has historically led some researchers to

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characterize adolescence as ridden with ‘storm and stress’ (Hall, 1904). The controversial ‘storm and stress’ viewpoint is bolstered by reports that the onset of many psychiatric illnesses increases sharply from childhood to adolescence (Compas, Orosan, & Grant, 1993), with the lifetime risk for the emergence of mental illness peaking at 14 years of age (Kessler et al., 2005). Although a full discussion of clinical adolescent populations is of inherent interest to this topic, it is outside the scope of the present review and we refer the reader to existing articles that address these issues in greater detail (Paus, Keshavan, & Giedd, 2008; Steinberg, 2005).

In terms of the typical range of emotions, certain classes of emotional states – particularly negative emotional states – show a peak in prevalence during adolescence (Compas, Hinden, & Gerhardt, 1995; Petersen et al., 1993; Rutter, Graham, Chadwick, & Yule, 1976). Most recently, YRBS results showed that in the prior year, more than one in four adolescents (27.3%) had experienced significant symptoms of depression for at least two weeks, to the point that it interfered with their everyday functioning (Eaton et al., 2008). Experiencing frequent negative affect is particularly common during the early adolescent years, more so in females than males (Larson, Moneta, Richards, & Wilson, 2002), and in addition to sad mood, also manifests itself in anxiety (Abe & Suzuki, 1986), self-consciousness, and low self-esteem (Simmons, Rosenberg, & Rosenberg, 1973; Thornburg & Jones, 1982). Feeling sad, depressed, or hopeless may be associated with the heightened rates of affective disorders, attempted and completed suicide, and addiction also observed during adolescence (Mościcki, 2001; Pine, Cohen, & Brook, 2001; Silveri, Tzilos, Pimentel, & Yurgelun-Todd, 2004; Steinberg, 2005). These statistics underscore the need to understand the physiological basis of these emotional state changes in adolescents.

Finally, adolescents’ negative emotional states are not only frequent but their emotional responses also tend to be more intense, variable and subject to extremes relative to adults (Arnett, 1999; Buchanan, Eccles, & Becker, 1992; Eccles et al., 1989; Simmons & Blyth, 1987). Larson and colleagues (2002) performed a cross-sectional beeper study that sampled the momentary affect experienced by early adolescents several times per day for a week, and then retested those individuals approximately 3 years later, after they had transitioned into late adolescence. Results indicated that early adolescents, defined here as fifth to eighth graders, experienced substantially greater short-term variability in affective state relative to what the same individuals experienced in ninth to twelfth grades (Larson et al., 2002). This study and others suggest that adolescent emotional states tend to be more labile than children and adults, and this appears to be particularly true during the early adolescent years.

The work just described paints a relatively bleak picture, suggesting that adolescence is doomed to be a very negative time of life. However, it is important to note that most adolescents are actually not miserable, and negotiate this potentially difficult period with relative ease and without lasting problems (Steinberg, 2008). We believe that a bias in available data may contribute to this discrepancy – while many studies ask adolescents to report on their negative emotions, very few ask about positive emotions which may also be elevated during this time (see Ernst et al., 2005). Consequentially, a more current view of adolescent affect is not deterministic with regard to experiencing ‘storm and stress’, but contends that being an adolescent may be a risk factor for experiencing intense negative emotional states (Arnett, 1999).

### 3. Adolescent incentive-driven behavior

In the previous section, we have asserted that adolescents frequently experience negative and volatile emotions. However, the

period of adolescence is also marked by a nonlinear enhancement in risk-taking behavior, characterized by approaching pleasurable experiences without appropriate reverence to their associated potentially negative consequences. Several classes of epidemiological data support this conceptualization of adolescent behavior. In particular, adolescents engage in significantly more risky driving, illicit drug use, criminal acts and unsafe sexual behavior than children and adults (Eaton et al., 2008; National Research Council, 2007; Substance Abuse and Mental Health Services Administration, 2007). These health statistics suggest that adolescents are risk-takers, but environmental influences such as reduced parental supervision and increased access to risk-enabling situations could also explain the increase in risk-taking between childhood and adolescence.

Empirical work measuring risk-taking in controlled environments has largely supported the notion that adolescents show disproportionate risk-taking in the absence of differential environmental demands. Cauffman and colleagues (in press) used the Iowa Gambling Task to test participants varying in age from pre-adolescence (10 years old) to adulthood (up to 30 years old). Using this task, approach- and avoidance-based decision-making was calculated separately by quantifying participants’ ability to use experimenter feedback to learn to approach ‘good’ decks of cards (positive feedback) and avoid ‘bad’ decks (negative feedback). They found that levels of approach toward potential reward took on a curvilinear function, with the maximal sensitivity to positive feedback occurring during the adolescent years. In contrast, use of negative feedback to avoid negative outcomes strengthened with age in a linear fashion, not showing full maturity until the adult years. These findings suggest that adolescents may have a disproportionate approach orientation, paired with an immature avoidance orientation, which may explain the nonlinear boost in risk-taking behavior. These findings are consistent with the results of Figner, Mackinlay, Wilkening, and Weber (2009a), who employed the Columbia Card Task, a risky decision-making task with ‘hot’, or affectively-driven, and ‘cold’, deliberative decision making contexts. They observed that in the ‘hot’ condition, adolescents showed an increase in risk-taking relative to adults. Recently, this sample has been extended to individuals as young as 10 years of age, with findings indicating that pre-adolescents display a level of risk-taking comparable to adults, and less than adolescents (Figner, Mackinlay, Wilkening, & Weber, 2009b). These experiments lend support to the notion that adolescents are disproportionately motivated to approach potential rewards, particularly in contexts with heightened arousal or salience.

Why do adolescents display greater propensity for risk taking? Although the answer is complex and addressed by another article in this volume (see article by Doremus-Fitzwater, Verlinskaya, & Spear), risky behaviors observed in adolescence are likely related to an enhanced motivation to seek out incentives and new experiences. This drive may be mediated by a greater salience of rewarding stimuli during this age relative to children or adults (Steinberg, 2008) – in other words, a sensitization to reward (Casey, Getz, & Galvan, 2008; Casey, Jones, & Hare, 2008; Fareri, Martin, & Delgado, 2008). This interpretation is consistent with the behavioral findings just described, a documented enhancement of sensation seeking in adolescents relative to children and adults (Zuckerman, Eysenck, & Eysenck, 1978), enhanced reported positive affect following the receipt of a monetary reward (Ernst et al., 2005), and neurobiological evidence which will be discussed in the forthcoming sections. Interestingly, rodents also show enhanced novelty and sensation seeking during adolescence, suggesting that reward-seeking behavior is governed by primitive biological mechanisms (Adriani, Chiarotti, & Laviola, 1998; Laviola, Macri, Morley-Fletcher, & Adriani, 2003).

In humans, this tendency paired with an immature “self-regulatory competence” leads to heightened risk for poor choice behavior



(Steinberg, 2004). When placed in an emotionally salient situation, enhanced sensitivity to positive environmental cues biases adolescent behavior toward approaching incentives, even when that choice may be suboptimal or risky (Casey, Getz, et al., 2008; Casey, Jones, et al., 2008). Importantly, risky behavior cannot be explained by a deficiency in comprehending the potential consequences of these actions (Reyna & Farley, 2006). Adolescents are cognitively able to appreciate the objective riskiness of their behaviors, yet in the moment these warnings are not heeded, perhaps due to a variety of influences including peers, environmental context, or internal emotional state (Gardener & Steinberg, 2005; Steinberg, 2005), leading environmental cues to 'win' over cognitive control in emotionally charged circumstances. This conceptualization proposes that disproportionate sensitivity to salient environmental cues can partially account for the nonlinear increase in risky reward-seeking behavior during this stage of development.

Although at first glance, risky adolescent behavior may appear inconsistent with adolescents' frequent experience of negative mood states, these tendencies need not be mutually exclusive (Bogin, 1994; Spear, 2000). Indeed, negative and extreme emotional behavior paired with increased risk-taking may facilitate evolutionarily appropriate behavior (Casey, Getz, et al., 2008; Casey, Jones, et al., 2008; Spear, 2000). Risk-taking and novelty seeking can be viewed as facilitatory to some of the primary goals of adolescence in societal structures in which individuals must leave their home territory – "testing out" one's independence, generating sufficient motivation to explore new environments, and developing bonds with non-family members (including potential mates). A propensity to generate reactive and extreme emotions may complement this process of striving for independence. Labile and negative emotions may signal a heightened state of vigilance toward threat and safety cues, which may serve a greater importance when engaging in risk. As such, the combination of emotionality and incentive seeking may have come about for good reason, but in present society serves less of an adaptive purpose.

#### 4. Synthesizing a model of adolescent behavior change

Based on the behavioral work just described, we have observed three main themes characterizing unique aspects of adolescent behavior, relative to behavior of children and adults. First, adolescents appear to show heightened sensitivity to salient environmental cues. Behaviorally, this idea is supported by epidemiological reports of adolescent risk-taking behavior, and empirical work showing exaggerated responses to both positive and negative environmental cues in adolescents relative to children and adults. What may seem like a mildly annoying or hurtful event to adults may constitute an intense emotional trigger in adolescents leading to strong negative affect. Similarly, an environmental cue signaling a potential source of hedonic pleasure may drive incentive-seeking behavior to a greater extent than in children or adults due to a heightened sensitivity to potential rewards.

A second theme in the characterization of adolescent behavior is that adolescents are often unable to exert behavioral control in the face of environmentally salient cues, leading to risky and potentially dangerous choice behaviors. In particular, adolescents are able to comprehend and reason the outcomes of suboptimal decisions. Yet, in the right context, be it with peers or in a certain mood state, adolescents approach salient environmental cues even when it is disadvantageous or potentially dangerous. In terms of controlling negative affect, a lack of prefrontal control may lead to deficient emotional regulation abilities, resulting in affective responses left 'unchecked' and resulting in highly emotional output.

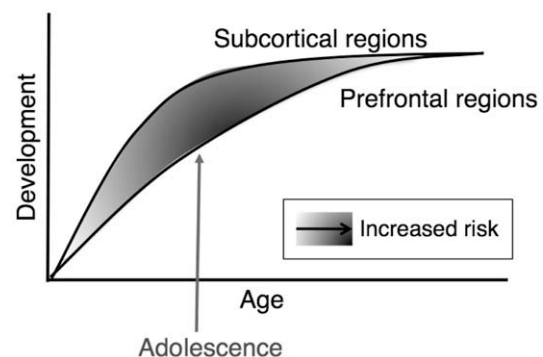
Lastly, although adolescents tend to show heightened affective responsiveness and incentive-based behavior changes, these re-

sponses are highly subject to individual differences. It is easy to forget that many adolescents make rational decisions, and have no problem regulating their emotions. However, we believe that adolescence is a time of life that is, consistent with more current views on 'storm and stress' (Arnett, 1999), a risk factor for heightened emotionality. This stage of life, combined with predisposing factors such as individual differences in trait anxiety or mood, or state contextual factors such as the stability of family or peer relations, may constitute a compounded source of risk for experiencing intense emotional states observed during adolescence.

#### 5. Toward a neurobiological model of adolescent behavior

We have developed a biological model that characterizes brain changes underlying the patterns of adolescent behavior that takes into account the nonlinearity of emotional and incentive-seeking behaviors that are unique to this period (Casey, Getz, et al., 2008; Casey, Jones, et al., 2008). This empirically driven model posits an imbalance between the relative structural and functional maturity of brain systems critical to emotional and incentive-based behavior (e.g., subcortical regions including the amygdala and ventral striatum) as compared to brain systems mediating cognitive and impulse control (e.g., the prefrontal cortex), see Fig. 1. A relative maturity of subcortical structures compared to a still immature prefrontal control system may enable strong signaling of subcortical systems paired with weak control signaling, to account for the biased emotional and incentive-based behavior that is typical of adolescence. This is in contrast with the periods of childhood, when both brain systems are relatively immature, and adulthood, when both brain systems are relatively mature – and in both cases, more balanced in their influence over behavior. The following section will discuss empirical research outlining the development, structure, and function of subcortical and prefrontal control brain systems and their interaction, as well as how imbalanced engagement of these systems can lead to the emotional and reward-seeking behaviors associated with adolescence.

We will focus primarily on three interacting brain systems whose dynamic functions are critical to adolescent emotional, incentive, and cognitive control behaviors. The amygdaloid complex, a cluster of nuclei situated in the medial temporal lobe, plays a critical role in processing information of biological significance (Aggleton, 2000; Davis & Whalen, 2001; LeDoux, 2000), including emotionally evocative stimuli, potential threats, and cues depicting the emotional states of others. A second critical player in this circuitry is the ventral striatum, a portion of the basal ganglia that



**Fig. 1.** Model for enhanced affective and incentive-based behavior in adolescence. Early maturation of subcortical regions such as the amygdala and ventral striatum (top line), combined with late maturation of prefrontal cortical regions (bottom line), predicts a nonlinear enhancement in affectively-driven behavior during adolescence.



contains the nucleus accumbens (NAcc). The NAcc contributes to decision-making behavior by signaling the anticipation and attainment of rewards, and serves to influence motivated behavior via connections with the prefrontal cortex (Cardinal, Parkinson, Hall, & Everitt, 2002; Delgado, 2007; Schultz, 2006). Finally, the prefrontal cortex has been implicated in wide-serving cognitive functions including the implementation of cognitive control, regulation of emotion, rational decision-making and complex cognition (Casey, Galvan, & Hare, 2005; Miller & Cohen, 2001; Ochsner & Gross, 2005). It is an imbalance between the relative maturity of the amygdala and NAcc, relative to the PFC, that we believe gives rise to the tendency toward disproportionate emotional and reward-sensitive behavior in adolescence.

## 6. Assessing differential relative maturity of subcortical and prefrontal regions

Outside of the functional neuroimaging literature, there is evidence to suggest a differential relative maturity of subcortical brain structures as compared to prefrontal regions, which may be most pronounced during adolescence. Evidence for the continued pruning of prefrontal cortical synapses well into development has been established in both nonhuman primates and humans (Huttenlocher, 1997; Rakic, Bourgeois, Eckenhoff, Zecevic, & Goldman-Rakic, 1986), with greater regional differentiation found in the human brain (Huttenlocher, 1997) such that cortical sensory and subcortical areas undergo dynamic synaptic pruning earlier than higher-order association areas. This conceptualization of cortical development is consistent with anatomical MRI work demonstrating protracted pruning of gray matter in higher-order prefrontal areas that continues through adolescence (e.g., Giedd et al., 1999) relative to subcortical regions. The amygdala and nucleus accumbens also show anatomical changes during this time of life but to a lesser degree. In an anatomical MRI experiment, gray matter measurements of the nucleus accumbens were not predicted by age, unlike prefrontal regions that were strongly negatively predicted by age (Sowell, Trauner, Gamst, & Jernigan, 2002). In terms of amygdala maturation, volumetric analyses of the human amygdala showed a substantially reduced slope of change magnitude relative to cortical areas in 4–18 year olds (Giedd et al., 1996). Taken together, these findings suggest a protracted developmental timescale of the prefrontal cortex relative to these subcortical regions.

Our model is similar to other models of adolescent brain development (Nelson, Leibenluft, McClure, & Pine, 2005; Steinberg, 2008). However, the present model differs in that it attempts to account for adolescent changes in the processing of both appetitive and aversive cues, and emphasizes the dynamic interplay between subcortical and cortical brain systems across development. Finally, the current model integrates findings from children, adolescents and adults in order to account for the nonlinear nature of adolescent behavior change, and incorporates the important role of individual differences in modulating behavioral and brain responsivity.

## 7. Brain mechanisms of enhanced sensitivity to salient environmental cues

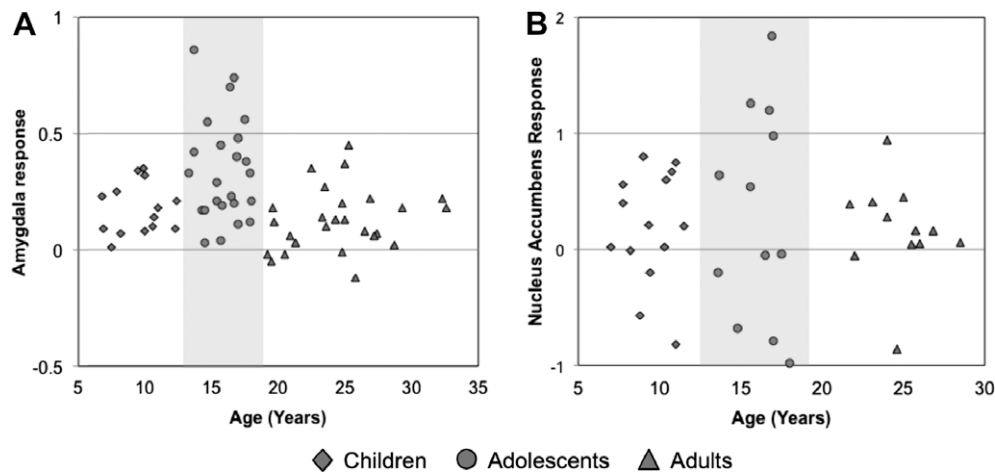
Functional neuroimaging techniques allow for the noninvasive measurement of regional brain activity while subjects perform tasks aimed at isolating psychological processes of interest. In affective neuroscience, researchers have used neuroimaging techniques to identify a network of brain regions that appear to be particularly responsive to appetitive and aversive stimuli, including the amygdala, ventral striatum, midbrain nuclei, and medial and lateral prefrontal cortices (Adolphs, 2002; Kober et al., 2008).

One can then look across a developmental trajectory to determine how the recruitment of emotion- and incentive-sensitive brain regions changes as a function of development, behavior, and individual differences.

Several neuroimaging experiments have examined the nature of subcortical responsivity to aversive and appetitive environmental cues during adolescence. Early work on this topic documented that adolescents showed a reliable amygdala response to facial expressions of emotion, including fearful faces (Baird et al., 1999). Subsequent experiments including an adult comparison group reported that adolescents elicited a greater amygdala response magnitude to negatively valenced facial expressions relative to adults (Guyer, Monk, et al., 2008; Monk et al., 2003). However, it should be noted that this effect has not always been observed, as Thomas et al. (2001) documented an increase in amygdala response to neutral relative to fearful facial expressions in a pre-adolescent sample, the opposite effect of what was observed in adults. In addition, there is some evidence that the amygdala response in adolescents may be valence-independent, as adolescents also show enhanced amygdala activity to happy relative to neutral facial expressions (Williams et al., 2006), consistent with what is observed in adults (Somerville, Kim, Johnstone, Alexander, & Whalen, 2004).

Most recently, research has focused on tracking changes in neural responses to emotional cues during the transition into, during, and out of adolescence (Casey, Tottenham, Liston, & Durston, 2005) in order to detect nonlinear effects during this period of life. By testing individuals ranging in age from middle childhood to adulthood, it was observed that the response magnitude of the amygdala was significantly larger in adolescents compared to both children and adults, who showed comparable amygdala recruitment in response to facial expressions of emotion (Hare et al., 2008, see Fig. 2A). These studies and others have led to the interim conclusion that adolescents show an exaggeration in amygdala responsivity to emotional facial expressions relative to children and adults (Somerville, Fani, & McClure-Tone, *in press*). However, these patterns are not thought to be specific to facial expressions, as other negative cues such as the omission of a large monetary reward has been shown to generate disproportionately large amygdala responses in adolescents relative to adults as well (Ernst et al., 2005).

Functional neuroimaging techniques also have examined the neural underpinnings of adolescents' enhanced sensitivity to appetitive cues by using variations on incentive-related decision tasks, where subjects' behavioral choices determined the win or loss of money and/or magnitude of reward. These experiments have focused on the activity of the ventral striatum, which is sensitive to reward anticipation and learning in both the human (Delgado, Nystrom, Fissell, Noll, & Fiez, 2000; Knutson, Adams, Fong, & Hommer, 2001; O'Doherty, Deichmann, Critchley, & Dolan, 2002) and animal (Schultz, Dayan, & Montague, 1997). May and colleagues (2004) tested adolescent participants during a gambling task in which they could win or lose money on each trial, probing neural activity to the processing of reward outcomes. When comparing win to loss trials, adolescent participants recruited similar brain regions to what had been shown previously using the same task in adults (Delgado et al., 2000), including heightened activity in the ventral striatum. Interestingly, the ventral striatal timescale of the reward response was temporally extended in adolescents compared to adults (Fareri et al., 2008), suggesting a temporal exaggeration in striatal recruitment to rewards. Using another gambling task, Ernst and colleagues (2005) measured neural activity and subjective affective responses to the wins and losses during fMRI scanning. Relative to adults, adolescents reported an exaggeration in subjective happiness experienced when winning large rewards, and these large reward trials elicited exaggerated neural responses within the NAcc. Taken together, these two experiments lend sup-



**Fig. 2.** (A) Amygdala response to facial expressions of emotion was significantly greater in adolescents than children or adults. Adapted from Hare et al. (2008), *Biological Psychiatry*. (B) Nucleus accumbens response to receiving a large monetary reward was significantly greater in adolescents than in children or adults. Adapted from Galvan et al. (2007), *Developmental Science*.

port to the notion that adolescents show a heightened sensitivity to the receipt of incentives, both in terms of behavior and ventral striatal responses (cf Bjork et al., 2004).

A study from our laboratory assessed changes in the neural response to appetitive cues in participants of various ages to examine neural response changes to incentives during the transition into and out of adolescence. Galvan and colleagues (2006) reported on neural responses in children, adolescents, and adults during a reward learning paradigm paying out small, medium, and large monetary incentives. In adolescents and adults, the NAcc showed linearly increasing activity as a function of reward outcome, with larger reward magnitudes eliciting greater NAcc activity. Children showed a less coordinated NAcc response, with no difference in activity across low, medium, and high reward magnitude conditions. However, in the NAcc, adolescents showed an exaggeration in this magnitude-based response, with a significant boost in response to large monetary rewards relative to children and adults (see Fig. 2B). This biological hypersensitivity to reward in adolescents has been demonstrated in several additional studies (Ernst et al., 2005; May et al., 2004) and suggests a relative functional maturity in adolescent NAcc response as compared with children, with overall patterns of response mimicking that of adults, but in an exaggerated fashion.

#### 8. Brain mechanisms of reduced top-down control over responses to salient cues in adolescents

Another important change in brain structure occurs within tracts of white matter, bundles of myelinated axons that transport neural signals between brain regions (Cascio, Gerig, & Piven, 2007). In contrast to gray matter, white matter pathways appear to increase in size, density, and organization throughout adolescence and well into adulthood (Schmithorst, Wilke, Dardzinski, & Holland, 2002; Snook, Paulson, Roy, Phillips, & Beaulieu, 2005). Of particular interest is the structural integrity of white matter tracts between subcortical brain regions and the prefrontal cortex, as these pathways may mediate cross-communication between subcortical emotion- and incentive-driven regions and prefrontal control regions (Hare & Casey, 2005; O'Doherty, 2004; Pessoa, 2008; Phelps, 2006).

A growing body of work is accumulating to suggest that the structural integrity of subcortical-cortical white matter pathways regardless of age is related to behavior and personality characteristics pertinent to reward and emotion processing. Kim and

Whalen (in press) have recently shown that the strength of connectivity between the amygdala and the ventromedial prefrontal cortex predicts fewer symptoms of anxiety in healthy adult subjects, consistent with previous reports identifying a similar amygdala-PFC pathway (Johansen-Berg et al., 2008). Perhaps the link between structure and personality would explain individual differences in these behaviors during adolescence, where white matter maturity appears to be intermediate and variable across individuals.

Using a developmental sample, Liston and colleagues (2006) reported that several white matter tracts showed continued maturation during adolescence, including tracts between the ventral prefrontal cortex and striatum. Of the tracts examined, only the maturity of a ventral frontostriatal pathway predicted better impulse control, measured by effort in performance on a go-no-go task (Liston et al., 2006). Taken together, these studies offer intriguing evidence that subcortical-cortical white matter pathways continue to undergo structural change throughout adolescence and that the efficiency of cognitive control is, in part, dependent on the maturity of frontostriatal connections. This may be consequential to the ability to control impulses in the face of potential rewards. Future studies relating properties of white matter tracts to personality traits and cognitive abilities within developmental samples may allow greater understanding of the role of top-down and bottom-up connections in emotional- and incentive-driven behavior.

The studies discussed in the previous section suggest that adolescents may show a “hyper-reactivity” to salient environmental cues. A more comprehensive picture of adolescent emotional development takes into account the interaction between affective and control systems in the brain when required to suppress, ignore, or inhibit responses to emotional cues. Cognitive control can be defined as the ability to sustain goal-directed cognition in the face of extraneous information, and its development and neural substrates are discussed at length in another article in this volume (Luna et al., this issue). However, cognitive control is also relevant to emotional and incentive processing, because it is particularly difficult for youth to maintain cognitive control in the face of emotionally charged or incentive-laden distractors (Eigsti et al., 2006). When healthy adult participants are asked to consciously suppress their affective responses to salient environmental cues, enhanced activity is often observed in ventrolateral and medial prefrontal cortices (Ochsner & Gross, 2005; Urry et al., 2006). Counterproductive recruitment of the ventromedial prefrontal cortex may serve

as a neural predictor for psychiatric illnesses such as clinical depression (Johnstone et al., 2007), the incidence of which is elevated during adolescence. The interplay between emotional and cognitive systems is at the crux of our model, and we assert that adolescents display a functionally imbalanced pattern of neural activity that may be related to behavioral deficits in successfully inhibiting emotional responses.

More functional neuroimaging studies are needed to elucidate the interaction between emotional and controlled processing in adolescence, but initial studies have provided important insight into these interactions. A study by Monk and colleagues (2003) compared neural activity of adolescent and adult participants while they viewed fearful and neutral facial expressions of emotion. While viewing the faces, participants engaged in passive viewing rate their own emotional state. The emotional state rating was thought to necessitate shift in focus away from the facial stimuli, calling for an enhancement in controlled processes in the presence of emotion cues. Adults recruited the ventrolateral prefrontal cortex, localized to the inferior frontal gyrus to a greater extent than adolescents during trials requiring this attentional shift, when fearful faces were presented. The authors interpreted this finding as reflecting adults' ability to recruit lateral prefrontal regions to disengage from external emotional cues in order to focus on internal goals, while adolescents recruited this system less efficiently. The observation of a lateral prefrontal locus of activation is interesting and may reflect important differences between this paradigm and those presented in later sections. For example, in this experiment, activity was not correlated with any behavioral index of disengagement, implying that adolescents may be making use of different psychological strategies to complete the task at hand relative to adults. It will be important for future work to include behaviorally matched samples as well as those with modified performance across ages (presumably indexing the psychological process at hand) to further enable the interpretation of cross-developmental effects (as in Schlaggar et al. (2002)).

Hare and colleagues (2008) additionally tested for associations between subcortical and frontal regions implicated in cognitive control. Functional connectivity analyses identified a region of the ventral prefrontal cortex whose recruitment predicted the downregulation of the amygdala and less slowing of reaction times over the course of the experiment. When examining this relationship across development, adolescents under-recruited the ventral prefrontal cortex relative to adults. In other words, this study drew a linkage between under-recruitment of the ventral prefrontal cortex, exaggeration of the amygdala and slowed performance – and this pattern was characteristic of adolescents. In sum, these findings suggest that an amygdala–cortical functional network mediates the ability to exert control in the face of emotion, with adolescents showing relatively greater amygdala and differential prefrontal recruitment. This functional imbalance results in less efficiency in performing a goal-directed action in the presence of emotional cues.

Paralleling these results in the domain of incentive processing, Galvan also reported differential recruitment of the orbitofrontal cortex (OFC) in a sample including children, adolescent, and adult participants. The OFC is a subregion of the prefrontal cortex that has been shown in adults to represent reward contingencies and exert inhibitory control over risky reward-related impulses (Daw, O'Doherty, Dayan, Seymour, & Dolan, 2006; Galvan et al., 2005; see Rolls (2000) for a review). Galvan and colleagues reported that in adolescents, the OFC increased in response to the receipt of monetary reward (Galvan et al., 2006), similar to that observed in prior reports (May et al., 2004). In addition, adolescents showed spatially diffuse patterns of OFC activity that were more similar to children than adults, in contrast to the extent of activity in the NAcc, that was comparable in adolescents and adults. The spatially

diffuse activity in the OFC reported by Galvan and colleagues relative to the NAcc serves as a functional marker of brain immaturity (Durstun et al., 2006), providing additional evidence to a functional immaturity of the prefrontal cortex during the adolescent years relative to the earlier and more focal pattern of NAcc activity observed during this age.

In conclusion, subcortical systems critical to reward processing, including the ventral striatum and amygdala, show hyper-active responses to emotion and reward eliciting cues relative to both children and adults. The exaggerated neural responses in these regions lend support to the model proposed earlier, whereby amygdala and striatal signaling is disproportionately strong during the adolescent years. In contrast with the peaking of subcortical emotional and incentive-relevant brain responses, activity in the prefrontal cortex shows a very different trajectory of development. Our model theorizes that the prefrontal cortex undergoes a late-onset linear maturation with age, which is supported by structural and functional data just described. Work to date largely supports the notion that the prefrontal cortex continues to function at immature levels during the adolescent years, and exerts less regulatory control over subcortical regions relative to adults. The hyper-active upregulation of subcortical responses to salient environmental cues, paired with an immature regulatory system, may be responsible for changes in adolescent behavior, and can account for the nonlinear peak in incentive-seeking and emotional behavior often observed in adolescents.

## 9. Individual differences bias the responsivity of a subcortical–cortical network

The experiments just described suggest that adolescents tend to show enhanced subcortical responsivity to environmentally salient cues, as well as diminished prefrontal responses in contexts requiring cognitive control. However, simple observation of the raw data points representing the amygdala response in Fig. 2A, and nucleus accumbens response depicted in Fig. 2B, clearly shows there is substantial individual variability in these responses. In our conceptualization, adolescence in and of itself is a risk factor for the functional 'imbalance' discussed previously, but other individual difference factors may also serve as powerful mediators of subcortical–cortical responsivity (see Fig. 3). Such individual differences may take form in stable personality traits, differences in neurotransmitter profiles, biologically governed changes in hormones or other effects of puberty, and the social context, such as one's social status among peers.

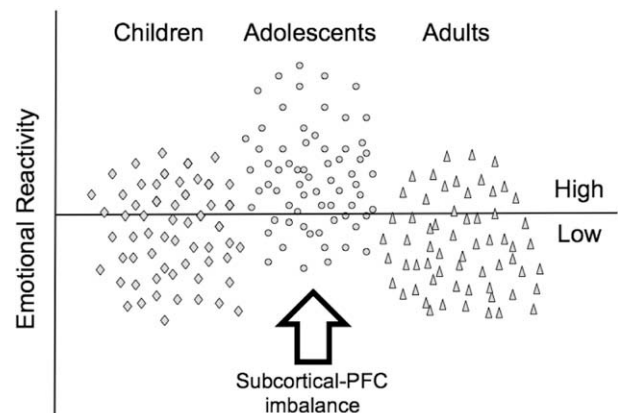


Fig. 3. Schematic representation of age and individual differences as compound risk factors for predicting highly emotional and risky behavior in adolescents.



The importance of individual differences as a predictor of ‘imbalance’ in subcortical–cortical networks has been demonstrated in numerous experimental contexts, including in some of the experiments described previously. Hare and colleagues (2008) showed that a substantial proportion of variability in the amygdala response to negative stimuli was accounted for by individual differences in trait anxiety irrespective of age, which is consistent with reports in adults indicating that anxiety induces a bias toward amygdala hyperresponding (Etkin et al., 2004; Somerville et al., 2004; Stein, Simmons, Feinstein, & Paulus, 2007). In terms of incentive processing, Galvan and colleagues demonstrated that across ages, a substantial proportion of variance in ventral striatal responses to the anticipation of a large reward was predicted by real-life probability of engaging in risky behavior (Galvan, Hare, Voss, Glover, & Casey, 2007). These studies offer initial evidence that individual difference variables, which are often not measured, may play an important role in biasing neural responses to affective and incentive-related cues in adolescents, and in the final sections we will examine some other additional sources of variability that may also modulate these effects. Discussion of other individual difference variables, including variability of neurotransmitter properties across development (particularly for the dopaminergic system) can be found in another article in this volume (Wahlstrom et al., [this issue](#)).

#### 10. The role of gonadal hormones on affective and incentive processing in the adolescent brain

One potential source of influence in ‘imbalanced’ subcortical–cortical responding is individual differences in pubertal hormone levels. During adolescence there is a significant increase in circulating gonadal hormones, which ultimately leads to the process of sexual maturation (Spear, 2000). Gonadal hormone effects on the brain have been conceptualized into either “organizational” mechanisms whereby sex hormones cause permanent changes to neural systems which in turn influence behavior, or “activational” mechanisms whereby sex hormones only influence acute changes and the effects are reversible once the steroids are removed (Cooke, Hegstrom, Villeneuve, & Breedlove, 1998). A perspective that is becoming more common is that the acute effects of sex hormones during adolescence may sensitize neural circuits to hormone activation, which in turn allows for the development and maturation of social and sexual behaviors (Romeo, Richardson, & Sisk, 2002; Sisk & Zehr, 2005; Steinberg, 2008). In other words, adolescence may be a sensitive period for gonadal hormones to induce organizational effects, which drive social and reproductive behaviors – and potentially, emotional and incentive-seeking behaviors on a larger scale.

Sexual dimorphisms have been reported in both global changes in brain structure (Giedd, Castellanos, Rajapakse, Vaituzis, & Rapoport, 1997) as well as differing trajectories for maturation of the amygdala and striatum (Caviness, Kennedy, Richelme, Rademacher, & Filipek, 1996; Giedd et al., 1997; Schumann et al., 2004). Thus, shifts in hormonal levels may be consequential to brain development during this time of life and its associated behavioral changes. In boys (ages 8–15 years), higher basal levels of testosterone correlated with increases in volume in the amygdala (Neufang et al., 2009). This recent finding suggests that gonadal hormones may have activational effects on regions that were shown to be responsive to emotionally salient information. Because adolescence is a time when hormones levels are heightened (Norjavaara, Ankarberg, & Albertsson-Wikland, 1996), it is possible that these hormones serve as an important individual difference measure in mediating emotion and incentive-seeking behavioral and neural responses in adolescents.

Studies in adolescents also show a link between changes in hormones and social behaviors. In adolescent boys, lower levels of testosterone and testosterone levels that decreased more slowly during the day had greater levels of anxiety, depression and attention problems irrespective of pubertal development, while in adolescent girls, steeper declines in testosterone during the day correlated with greater disruptive behavior (Granger et al., 2003). In adolescent boys and girls, acute increases in gonadal hormones correlated with greater affiliations with risk-taking peers (Vermeersch, T’Sjoen, Kaufman, & Vincke, 2008a, 2008b) and higher social dominance (Schaal, Tremblay, Soussignan, & Susman, 1996) suggesting that the social environment and gonadal hormones may interact to predict individual differences in incentive and social behaviors.

While there may be a link between fluctuating hormones influencing behavior it is also important to consider the role of gonadal receptor genes, which act to mediate circulating gonadal hormones. A recent study (Perrin et al., 2008) showed variability in white matter volume in adolescent boys was mediated not only by testosterone levels but by a genetic polymorphism in the androgen receptor (AR) gene, such that boys with the short AR gene with higher testosterone levels had a greater increase in white matter volume than those with the long AR gene. This suggests the important role of genetics in understanding the activational and organization effects of hormones.

#### 11. The influence of peers on affective and incentive processing in the adolescent brain

Relations with peers takes on a heightened importance in adolescence (Steinberg, 2005), rendering it a potential source for mediating changes in affective and incentive behavior. On one hand, adolescents as a group may show enhanced sensitivity to social cues, particularly those generated by peers, as compared to adults and children. Additionally, individual differences in sensitivity to peers may be particularly relevant in biasing adolescent behavior.

Recent studies have attempted to characterize the influence of peers on biasing behavioral and neural responses to affectively relevant cues. Grosbras et al. (2007) reported adolescents who were highly resistant to peer influence had less right dorsal premotor cortex and left dorsolateral prefrontal cortex activity while watching angry hand movements and facial expressions, versus those with lower resistance to peer influence. This suggested that individuals who are particularly sensitive to peer pressure may have an increase in motor preparation to angry movements and may engage more attention when viewing emotionally salient information. Guyer, Lau, et al. (2008) reported that female adolescents who interacted with high and low interest peers in a virtual chat room task had greater activity in the nucleus accumbens, hypothalamus, hippocampus and insula to high versus low interest peers. All of these regions, besides the insula, had age-related increases in activity suggesting a hyperresponding in reward-sensitive regions to socially desirable peers. These findings implicate the reward systems discussed earlier as potentially mediating the enhanced salience of social interactions during adolescence.

Both of these studies have attempted to elucidate the neural basis of peer influence on affective processing, yet are limited in their ability to inform neural responses during actual social interactions. In other words, during the experiments just discussed, participants do not believe they are actually interacting with peers. Work in adults has attempted to mimic real-life social interactions inside of the fMRI scanner and measure neural responses to ostensible social inclusion and exclusion (Eisenberger, Lieberman, & Williams, 2003; Somerville, Heatherton, & Kelley, 2006). Work is presently underway to develop paradigms in which adolescents are simulat-

ing or experiencing real social exchanges, and it will be of interest to assess the contribution of brain regions in reward and affective networks in mediating social behavior and monitoring the outcomes of peer interactions.

## 12. Caveats and limitations

The research just described, primarily conducted in just the past five years, has made remarkable strides in characterizing the nature of emotion and reward responding in the adolescent brain. However, it should be pointed out that the number of experiments on this topic is still relatively few and caution should be taken in drawing unequivocal conclusions from them. More studies with larger samples sizes are called for to fully elucidate the nature of amygdala–striatal–prefrontal interactions and their relation to adolescent behavior. In addition, testing children, adolescents, and adult subjects in a single experiment is critical for identifying nonlinear changes, because adolescents are expected to differ from both groups. This is rarely tested within a single experiment.

In terms of ventral striatal and amygdala functioning in adolescents, evidence has converged nicely in support of the idea that both systems show an exaggerated response profile in adolescents. To understand adolescent reward and emotional behavior, prefrontal control mechanisms must be taken into account, but relatively few experiments have assessed the role of the prefrontal cortex in mediating these behaviors. In addition, many experiments have discussed prefrontal responses with relative imprecision in terms of which particular area within the prefrontal cortex was active and discussing it within the context of its associated literature. The prefrontal cortex is a large area of the brain with heterogeneous subregions varying in function, architecture, inputs and outputs. Future work, both in adults and adolescents, will likely allow for greater understanding of prefrontal subdivisions and their relation to amygdala and striatal function across development.

## 13. Conclusions

Relative to adults and children, adolescents engage in disproportionately risky behaviors, which can lead to a wide variety of negative outcomes including substance abuse, unprotected sex, injuries, and suicide. Many of these behaviors are at least in part mediated by incentive and emotional responding, be it inappropriate appetitive behavior leading to risky approach of potential rewards, or the outcome of experiencing extreme negative affect such as self-harm and suicide. Emotional and incentive-related behaviors are intimately linked to these risks, and understanding the role of developing brain systems in mediating these behaviors is of inherent importance to adolescent health.

Human structural and functional imaging studies have begun to shed light on the complex changes occurring in the brain at this time of life, and their relationship to adolescent behavior. At this point, it appears that the differential trajectories of the amygdala and nucleus accumbens, relative to late-maturing control regions in the prefrontal cortex, may lead to adolescent behavioral changes characterized by enhanced sensitivity to environmental cues without appropriate behavioral inhibition. A host of individual differences also appear to be critical for predicting heightened risk for this behavioral profile, which are just beginning to be explored empirically. Relatively mature emotional and reward systems left unchecked by prefrontal control systems may be the key neural ‘imbalance’ that leads to the nonlinear, unique behavioral profile of adolescents. It is hoped that continued work in this field will improve our understanding of this fascinating and complex time of life.

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# EXHIBIT 5



## **Firearms on College Campuses: Research Evidence and Policy Implications**

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### Executive Summary

Restrictions on legal gun owners carrying firearms in public places have been removed or greatly weakened in most states over the past three decades. Colleges and universities, however, have been locations that have commonly been allowed to prohibit otherwise legal gun carriers from bringing guns onto campuses. This exception, however, has recently begun to change. Eight states now have laws that, generally, allow individuals who can legally carry guns elsewhere to bring guns onto college campuses. In 24 states, colleges and universities have the authority to allow or forbid civilians from having firearms on their campuses. A number of additional states considered new laws relevant to carrying firearms on college campuses during their 2015-2016 legislative sessions.

This report reviews the evidence surrounding the relationship between civilian gun carrying and violent crime and mass shootings and factors that are unique to public safety on college campuses. Policies removing restrictions on civilian gun carrying are based on claims or assumptions about civilian gun use, the impact of state Right-to-Carry (RTC) laws, and the nature of mass shootings that are not supported by or are contrary to the best available research. The incidence of civilian self-defensive gun use (SDGU) is difficult to discern as available data are based on self-report, and distinguishing aggressor from victim in interpersonal altercations can be highly subjective. Nonetheless, data from the National Crime Victimization Survey indicate that SDGU is relatively rare (about 102,000 self-reported incidents per year affecting 0.9% of all violent crime victimizations) and is no more effective in reducing victims' risk of injury than other victim responses to attempted violent crimes. Research led by John Lott, author of *More Guns, Less Crime*, suggesting that RTC laws prevent violent crime has important flaws that biased his findings. The most recent and rigorous research on RTC laws that corrects for these flaws consistently finds that RTC laws are associated with *more* violent crime. These findings may seem counterintuitive because concealed-carry permit holders have, as a group, low rates of criminal offending and must pass a background check to ensure that they do not have any condition, such as a felony conviction, that prohibits firearm ownership. But, in states with low standards for legal gun ownership, legal gun owners account for the majority of persons incarcerated for committing violent crimes with firearms.

As mass shootings and casualties from those shootings have risen sharply over the past decade, one rationale for allowing more civilians to carry firearms, both on and off college campuses, is to avert rampage shootings or stop rampage shooters before additional victims are shot. Central to these arguments are the notions that "gun-free" zones attract individuals set on mass murder and that armed civilians frequently thwart or interrupt such shootings. New research on mass shootings involving six or more victims murdered that occurred in the United States from 1966 to through June 2016 contradicts these claims. Only 12% of these shootings took place, in whole or in part, in a truly gun-free zone (no armed security or police or armed civilians) and 5% in a gun-restricting zone (civilian gun possession prohibited). A separate study of mass shootings involving four or more fatalities, that included domestic incidents during 2009-2015, found that only 13% occurred in a gun-free or gun-restricting zone. Successful civilian uses of guns to stop a mass shooting were incredibly rare and about as common as armed civilians being shot while attempting to respond to mass shooting incidents. Furthermore, the data show no evidence that RTC laws – which, it is argued, lead to more armed citizens ready to defend against a mass shooting – reduce mass shootings or the number of people shot in those incidents.

This report also reviews research relevant to the unique context of college campuses, especially student demographics and characteristics, and the implications for increased access to firearms among college students. Late adolescence and early adulthood is marked by increases in a variety of risky behaviors including violence, binge drinking, and drug abuse. Binge drinking, a common behavior among college students, especially elevates risks for involvement in violent altercations. Risky decision-making in adolescence and early adulthood is due, in part, to on-going brain development during that stage of life that can compromise emotional and behavioral regulation, impulse control, and judgment – all of which are essential for avoiding the circumstances in which firearm access leads to tragedy. Age-specific homicide offending peaks around the age when youth reach the minimum legal age for purchasing, possessing, and carrying handguns (19-21 years).

Suicidal behavior that leads to death or hospital treatment peaks at age 16, but remains high through age 25, covering the age span of most college students. Mental illnesses, such as depression, that commonly emerge during adolescence and young adulthood, coupled with restricted impulse control and the stressors that many college students experience, increases the risk of suicidal behavior among college students. Research demonstrates that access to firearms substantially increases suicide risks, especially among adolescents and young adults, as firearms are the most common method of lethal self-harm.

Proposals to allow guns on college campuses must consider the fact that serious assaults and suicide attempts – which are more likely to be lethal when firearms are present – are far more common than are the rampage shooting incidents that the policies are purported to prevent. Inserting more firearms into those assaults and suicide attempts by allowing more people to have firearms on campuses is likely to lead to more deaths and serious injuries. A recent study identified 85 incidents of shootings or undesirable discharges of firearms on college campuses in the U.S. from January 2013 through June 2016. Only two of these 85 incidents (2.4%) involved a shooter on a rampage. The most common incidents were interpersonal disputes that escalated into gun violence (45%), premeditated acts of violence against an individual (12%), suicides or murder/suicides (12%), and unintentional shootings or discharges (9%). Campus police much more commonly respond to a variety of violent and non-violent incidents than to rampage shootings. If those campus officers must assume that any given student is armed, this may compromise their ability to effectively respond to, and de-escalate, these incidents.

In summary, available data indicate that policies that allow individuals to bring firearms onto college campuses are unlikely to lead to fewer mass shootings or fewer casualties from those shootings. Mass shootings are a growing concern, but are still very rare events. Increasing gun availability in campus environments could make far more common acts of aggression, recklessness, or self-harm more deadly and, thus, have a deleterious impact on the safety of students, faculty, and staff.

### **Aims of this Report**

The purpose of this report is to review relevant research and implications associated with policies that allow the carrying of firearms on college and university campuses. During the past 30 years, a growing number of states have passed laws that make it easier for civilians to legally carry loaded firearms in public places. However, even as more states adopted so-called right-to-carry (RTC) laws, these laws generally set aside certain places such as bars, courthouses, schools, and college campuses where gun carrying is prohibited or that allowed businesses or institutions to declare that civilians are not allowed to bring firearms onto their premises. Deregulation of civilian gun carrying has accelerated in recent years in many states including new laws that allow or require state colleges and universities to allow those who can legally carry firearms in public to bring guns onto college campuses.

Policies that allow civilians who are not explicitly prohibited from carrying firearms in public to carry concealed loaded firearms onto college campuses are based, in part, on beliefs that such policies with enhance campus safety including reducing risks of mass shootings. Because there have been no formal evaluations of policies to allow guns on college campuses – many of these policies are relatively new – we sought to summarize research relevant to civilian use of guns, the impact of RTC laws on violent crime and mass shootings, and common patterns in public mass shootings to determine how well available research aligns with the assumptions underlying policies to allow civilians to bring guns onto college and university campuses. We also sought to summarize research that is relevant to the potential increased firearm access among college students and the college campus environment.

### **Relevant Law Governing Guns on College Campuses**

In the United States, laws regulating the purchase, possession, and carrying of firearms -- including on college or university campuses -- may originate at the federal, state, or local levels. Federal law is primarily codified as part of the Gun Control Act of 1968 and its amendments.<sup>1</sup> The Gun Control Act specifically includes language stating that Congress does not intend the Act to preclude state gun laws unless there is a "direct and positive conflict" between federal and state law. As a result, federal law acts as a "floor" -- imposing minimum standards applicable everywhere -- rather than as a ceiling for U.S. gun laws.<sup>2</sup>

One federal law, the Gun Free School Zones Act, forbids the carrying of firearms in school zones -- subject to certain exceptions.<sup>3</sup> A "school," however, is defined as one "which provides elementary or secondary education, as determined under state law."<sup>4</sup> As a result, colleges and universities are not covered by this federal law.

Most U.S. law regulating the carrying of firearms originates at the state level. Every U.S. state permits the carrying of weapons, either concealed or open, under some circumstances. These laws establish the terms under which a lawful gun owner may obtain a carry permit as well as the places and circumstances in which the gun may be carried. For example, these laws may allow or forbid carrying of firearms in places that serve alcohol, churches, or college and university campuses. (See the section of this report devoted to concealed carrying permit research for more information about these laws).

Localities within a state may sometimes also enact their own gun laws. However, since the late 1980s, many states have enacted firearm preemption laws forbidding localities from enacting some or all types of gun laws. Today, more than 40 states forbid localities from enacting most types of gun laws.



In fact, just five states generally allow local regulation of guns: Connecticut, Hawaii, Massachusetts, Illinois, and New York.<sup>5</sup> Even in these states which lack express preemption of local firearm laws, some local laws may nevertheless be deemed subject to implied preemption if a court determines that existing state law evidences an intent by the legislature to occupy the field of regulation or if the local law would otherwise conflict with state law. Therefore, local law plays little role in regulating carrying of firearms on college or university campuses.

According to the National Conference of State Legislatures, eighteen states currently ban carrying a concealed weapon on campus. In twenty-four states, individual institutions have the power to allow or forbid firearm carrying on campus. In the remaining eight states, firearms must generally be allowed on campus. In addition, during the 2015-2016 state legislative sessions, similar laws were considered in other states. None have yet been enacted.<sup>6</sup>

College and university firearm restrictions have been the subject of several recent lawsuits brought by individuals or groups seeking the ability to carry guns on campus. The results of the lawsuits have been mixed, often based on the specific language of state law. In *Regents of the University of Colorado v. Students for Concealed Carry on Campus*, a student group brought a complaint in 2008 alleging that a University of Colorado policy forbidding the possession of firearms on campus violated a Colorado state law, the Concealed Carry Act (CCA) enacted in 2003.<sup>7</sup> The CCA preempts localities from enacting their own laws regarding concealed carrying of handguns and allows concealed permit holders to carry their handgun anywhere not specifically excluded by the law. Public elementary, middle, and high schools are excluded but universities are not. In *Regents*, the Colorado Supreme Court concluded that the 2003 state law "divested the Board of Regents of its authority to regulate concealed handgun possession on campus."<sup>8</sup>

Similarly, in 2011 in *Oregon Firearms Educational Foundation v. Board of Education and Oregon University System*, the Oregon Court of Appeals concluded that an administrative rule promulgated by the State Board of Higher Education forbidding the possession of firearms on campus was preempted by a prior Oregon state law.<sup>9</sup> The Oregon preemption law states, in part, that "the authority to regulate in any manner whatsoever the sale, acquisition, transfer, ownership, possession, storage, or use of firearms ... is vested solely in the Legislative Assembly." Because the carrying rule promulgated by the Board of Education had the force of administrative law, it was preempted by this language.

In 2006, the Supreme Court of Utah also struck down a University of Utah policy prohibiting students, faculty, and staff from carrying guns on campus. In *University of Utah v. Shurtleff*, the Court held that Utah's firearm preemption statute -- which specifically applied to "state institutions of higher education" -- was constitutional within the meaning of the Utah state constitution and prevented the University from enforcing its policy.<sup>10</sup>

By contrast, in at least two cases, courts have upheld a college or university's ability to ban the carrying or possession of firearms on campus. In *Florida Carry, Inc. v. University of Florida*, the plaintiffs argued that a Florida law permitting the possession of firearms in a person's home or business should supersede a different Florida law prohibiting firearms on school property (including colleges and universities). The plaintiffs argued that university dormitories were essentially the students' homes. The Court concluded that the law forbidding guns on university property should prevail despite a state preemption law.<sup>11</sup> In a related Florida case, however, a court concluded that a state university could not forbid the possession of a firearm in a vehicle parked on school property, as long as the gun was securely encased in the vehicle.<sup>12</sup> Finally, in *Digiacinto v. The Rector and Visitors of George Mason University*, a non-student but frequent visitor to the George Mason University campus challenged a

University rule forbidding firearms in campus buildings or at campus events. The Virginia Supreme Court concluded that the University policy violated neither state law nor the federal constitution.<sup>13</sup>

As these cases demonstrate, the outcomes are very fact and state law dependent. In addition, the case law may or may not address whether the campus or university policies violate the Second Amendment to the U.S. Constitution. In 2008, the U.S. Supreme Court, in *District of Columbia v. Heller*,<sup>14</sup> concluded that a Washington, D.C. law essentially banning the possession of handguns by civilians in their homes violated the Second Amendment.<sup>15</sup> However, the Supreme Court has yet to determine whether this right extends to carrying firearms in public.<sup>16</sup>

**Table 1: Status of State Campus Carry Laws as of May 2016**

STATE	BANS CONCEALED CARRY ON CAMPUS	ALLOWS CONCEALED CARRY ON CAMPUS	DECISION LEFT TO INSTITUTION
Alabama			√
Alaska			√
Arizona			√
Arkansas			√*
California	√		
Colorado		√	
Connecticut			√
Delaware			√
Florida	√		
Georgia	√		
Hawaii			√
Idaho		√	
Illinois	√		
Indiana			√
Iowa			√
Kansas		√****	
Kentucky			√
Louisiana	√		
Maine			√
Maryland			√
Massachusetts	√		
Michigan	√		
Minnesota			√
Mississippi		√	
Missouri	√		
Montana			√
Nebraska	√		
Nevada	√		
New Hampshire			√
New Jersey	√		
New Mexico	√		

STATE	BANS CONCEALED CARRY ON CAMPUS	ALLOWS CONCEALED CARRY ON CAMPUS	DECISION LEFT TO INSTITUTION
New York	√		
North Carolina	√		
North Dakota			√
Ohio	√		
Oklahoma			√
Oregon		√	
Pennsylvania			√
Rhode Island			√
South Carolina	√		
South Dakota			√
Tennessee	√*		
Texas		√**	
Utah		√	
Vermont			√
Virginia			√
Washington			√
West Virginia			√
Wisconsin		√***	
Wyoming	√		

Adapted from information provided by National Conference of State Legislatures, Guns on Campus: Overview. Available at: <http://www.ncsl.org/research/education/guns-on-campus-overview.aspx>.

\* Certain faculty members may carry weapons on campus but not students or the public.

\*\* Effective August 2016. Private institutions may still choose to ban concealed carry.

\*\*\* May prohibit weapons in specific buildings if appropriate signs are posted at every entrance.

\*\*\*\* Law takes effect in July 2017. Institutions may prohibit carrying in a campus building if all entrances have adequate security measures

### Legal Context and the Potential for Armed Citizens to Reduce Casualties from Mass Shootings

John Lott, author of the book *More Guns, Less Crime*, popularized the notion that “gun free zones” invite mass shootings and contribute to the number of casualties from those events because there are no armed defenders to interrupt rampage shootings. Specifically, Lott purports that perpetrators of mass shootings intentionally seek out places where people are barred from carrying firearms in order to maximize casualties and minimize their risk of being shot. He claims that allowing civilians to legally carry loaded guns in public places increases the odds that an attempted rampage shooting will be interrupted and the number of casualties reduced; however, Lott’s claims are inconsistent with available evidence.<sup>17</sup>

The most prominent justification in support of campus-carry policies relates to the potential for armed civilians to intervene to reduce the carnage of active shootings. According to the advocates of allowing civilians to carry firearms on college campuses, some individuals considering perpetrating a mass shooting will be deterred from attacking places where they stand a likelihood of being confronted by private citizens carrying firearms. In instances when deterrence fails and attacks are initiated, campus-carry advocates claim that armed students and staff will be able to intervene and halt gun rampages and thereby minimize the number of victims killed or wounded in the attack.<sup>18</sup>

Below, we assess the evidence of the three underlying arguments for the campus-carry movement relevant to mass shootings. First, the occurrence and lethality of mass shootings is drastically reduced in so-called Right-to-Carry (RTC) jurisdictions.<sup>i</sup> Second, mass shootings occur almost exclusively in “gun-free zones,” where civilians are prohibited from carrying loaded firearms on their person. Third, when shooting rampages do occur, the active shooters are often stopped by armed civilians who confront the perpetrators.

As campus-carry is a relatively new phenomenon, there is little evidence that confirms or refutes the thesis specifically in the context of college campuses. However, there are several studies that assess the three underlying propositions that form the foundation of the campus-carry thesis. Examining each tenet individually offers valuable insights.

***Right-to-Carry Firearm Laws Do Not Reduce Mass Shootings or Casualties from Such Shootings***

Advocates for allowing civilians to bring guns onto college campuses and to deregulate carrying of guns in public places in general commonly cite research and statements by John Lott, an economist widely known for his claims that deregulating gun possession reaps significant reductions in violent crime.<sup>17,19</sup> Lott supports his claims with data and analytic methods that others have consistently found to have important flaws. In the 2<sup>nd</sup> edition of *More Guns, Less Crime*, Lott reported to have assembled a dataset of all mass shootings in the United States from 1977 to 1997. He found that the adoption of RTC laws was associated with a 67% reduction in mass shootings, completely eliminating mass shootings within five years of enactment. He also claimed RTC laws led to a 75% reduction in deaths from such shootings and an 81% reduction in persons injured in these shootings. However, an independent team of researchers tried to reproduce Lott’s findings on RTC laws and mass shootings, and found no association between such laws and such shootings.<sup>20</sup>

Lott’s claims pertaining to mass shootings and RTC laws are also inconsistent with evidence about mass shootings assembled in Louis Klarevas’s forthcoming book on the topic.<sup>21</sup> Klarevas collected data on 111 high-fatality mass shootings (6 or more people murdered with a gun) from 1966 through 2015. He found that in the 41 states that currently have RTC laws or no regulation of concealed carrying of firearms for legal gun owners, the average death toll in high-fatality mass shootings *increased* following the implementation of a RTC law from a mean of 7.5 before to 8.4 after the law. Moreover, this pattern of over eight fatalities per incident, on average, held well after five years, contradicting Lott’s assertion that mass shootings stop occurring within five years of the enactment of RTC laws. When Klarevas expanded his data set to include all 50 states and the District of Columbia, the average death toll in gun massacres was slightly higher in states and years where RTC laws were in place (8.4) than in states and years where there were no RTC laws in place (8.0).

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<sup>i</sup> Right-to-Carry (RTC) laws are those that remove discretion from law enforcement in issuing licenses to carry concealed firearms, provided that applicants are legally permitted to possess guns in their homes and meet any additional conditions, such as safety training. Laws of this type are also referred to as “Shall Issue” laws because law enforcement discretion is removed from the decision to issue the permits.

***There is No Evidence that “Gun-Free Zones” Facilitate Mass Shootings***

When John Lott’s book was reissued in its 3<sup>rd</sup> edition in 2010, he introduced a new concept that characterized places “where private citizens are not allowed to carry guns”: gun-free zones. He maintained that in locations where someone is bound to be armed, rampage gunmen will be thwarted. Further, he claimed that mass shooters—knowing they will face far less resistance in places where their potential victims are unarmed—consciously target gun-free zones. Unfortunately, the concept of a gun-free zone has never been properly defined. Initially, Lott described gun-free zones as locales “where private citizens are not allowed to carry guns.” Subsequently, Lott began embracing a looser conceptualization that deemed entire cities and counties to be gun-free zones, if they were extremely restrictive in issuing concealed-carry permits.<sup>22</sup>

Another problem with the term “gun-free zone” relates to how proponents of unrestricted gun carrying define areas as gun free when there are law enforcement officers and armed security guards on the premises, though civilians are prohibited from carrying their personal firearms on site. Lott characterized military installations like Fort Hood and the Washington Navy Yard, which have been attacked by rampage gunmen, as gun free despite the presence of significant armed security personnel. The implication of this notion of “gun free” is that rampage shooters are only deterred by armed civilians, not by armed guards and law enforcement. But a bullet fired from a police officer’s firearm has similar stopping power to a bullet from a civilian’s firearm, and it is probably more likely to hit its intended target since security and law enforcement personnel are likely to be better trained and prepared to respond to a rampage shooting than is the average civilian gun carrier.

Sharpening definitions can alleviate the ambiguities and inconsistencies surrounding gun-free zones and their relationship to mass shootings. In Klarevas’s study of rampage shootings, he argues that it makes more sense to distinguish between truly gun-free zones – places where there are never armed personnel stationed on the property *and* private citizens are prohibited from being armed with personal firearms by law or appropriate notice – and “gun-restricting zones” – places where private citizens are barred from carrying personal firearms by law or appropriate notice, yet armed security is routinely present. Most military bases and college campuses are gun restricting, as they typically have armed guards and/or armed police on regular patrol, but prohibit civilians from bearing arms. To round out the possibilities, Klarevas identified “gun-allowing zones” as places where private civilians are not legally prohibited from carrying personal firearms.<sup>21</sup>

A review conducted by Klarevas of the 111 high-fatality mass shootings (six or more victims murdered) that occurred in the U.S. since 1966 found that only eighteen have taken place, in whole or in part, in a gun-free zone or gun-restricting zone. (Three of these eighteen incidents occurred, in part, in gun-allowing zones.) Of these eighteen high-fatality mass shootings in gun-free or gun-restricting zones, thirteen took place in bona fide gun-free zones. The remaining five incidents occurred in gun-restricting zones. Contrary to what Lott argues, 84% of all gun massacres occurred in whole or in part where there is no evidence that civilian guns were prohibited, and nearly 90% occurred in whole or in part in locations where civilian guns were allowed or there was armed security or law enforcement. These 111 incidents did not include the mass shooting of police officers in Dallas on July 7 that obviously occurred in a gun-allowing zone where there were numerous Dallas police officers, campus police, and civilians

openly carrying firearms. Among the wounded were two El Centro College police officers. These data do not suggest that gun-allowing zones deter gun massacres.<sup>ii</sup>

**There is also little evidence that perpetrators of mass shootings intentionally seek out their targets based on whether or not civilians are prohibited from having guns.** Most targets of mass shootings are directed at a specific person, group, or institution with whom the perpetrator has a grievance.<sup>21</sup> Everytown for Gun Safety analyzed data on mass shootings using a slightly less conservative definition than that employed by Klarevas – four persons killed with a firearm, not including the shooter – for the period 2009-2015 and found that the majority (57%) of the incidents involved a shooter’s current or former intimate partner or family member. Seventy-one percent of the incidents occurred in a private dwelling and only 13% occurred in a public location that could qualify as a gun free or gun restricting zone.<sup>23</sup>

***Effective Neutralization of Active Shooters Requires Skills and Experience that Most Civilians Lack***

There is an unsupported assumption of campus carry advocates that armed students or staff on campus will shoot accurately enough to stop the shooter in an active shooting incident without wounding or killing innocent victims. Shooting accurately and making appropriate judgments about when and how to shoot in chaotic, high-stress situations requires a high level of familiarity with tactics and the ability to manage stress under intense pressure. Shooting accuracy in such situations is influenced by distance, the opponent shooter’s actions, lighting, use of cover, type of gun, and more.<sup>24</sup> Ability to shoot accurately are also affected by heart rate, breathing, fatigue, and mental stress.<sup>25</sup>

Effective and responsible use of a firearm under the conditions of an active shooting requires significant training. Yet most RTC laws require only that carry permit holders have weapon familiarity, perform basic range shooting and, in some cases, minimal crisis-shooting training to qualify to legally carry a gun. Of course, there are no training or performance requirements in states that do not require civilians to obtain a permit to carry concealed firearms. There is well-documented research citing the inaccuracy of police officers who use firearms in crisis encounters, although they receive extensive training and readiness preparation.<sup>26</sup> There is no reason to believe that college students, faculty and civilian staff will shoot accurately in active shooter situations when they have only passed minimal training requirements for a permit to carry. Generally, college and university students function at a high rate of mental and emotional stress, with over 50% reporting that they feel so depressed that it is difficult for them to function.<sup>27</sup>

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<sup>ii</sup> In addition to the July 7, 2016, mass shooting in Dallas, since January 1, 2015, there have been at least four mass public shootings (as defined by Lott) that occurred in gun-allowing zones: Christopher Harper-Mercer’s shooting spree that claimed nine lives at Umpqua Community College in Roseburg, Oregon; William Hudson’s rampage that claimed six lives at the Tennessee Colony campsite near Palestine, Texas; Syed Rizwan Farook and Tashfeen Malik’s attack that claimed fourteen lives at a holiday party being held at the Inland Regional Center in San Bernardino, California; and Jason Dalton’s murder spree that left six dead in Kalamazoo, Michigan. At two of the four locations (Umpqua and Inland)—and possibly at the other two locations—there were armed civilians present at the time of the shootings.



***Legally Armed Citizens Very Rarely Successfully Intervene to Prevent or Interrupt Mass Shootings***

One rationale for allowing guns on campus is that by increasing the number of armed civilians, you increase the ability of someone to effectively intervene with a gun to stop someone engaging in or attempting a mass shooting. Opponents of gun-free zones do not just argue that civilians carrying firearms can prevent mass shootings from occurring in the first place. They also maintain that, should deterrence fail, armed people will help reduce the bloodshed by neutralizing perpetrators before they can complete their rampages. In theory, this too sounds logical. Again, Lott is the source of this thesis. In particular, his central contribution to this debate is his effort to assemble an anecdotal compilation of thirty-one shootings since 1990 that involved armed civilians intervening and halting rampage gunmen from completing their objective of killing as many people as possible. Others have seized on his initiative, and the list of incidents now numbers 39.<sup>19</sup>

But there is one substantial problem with this list. When Klarevas scrutinized the specific instances where armed civilians purportedly intervened to end a mass shooting in progress, he found that, in reality, rarely did private citizens with personal guns stop rampages. Of the 39 incidents, the majority—22 incidents—did not involve mass-shooting scenarios. Instead, they were knife attacks, gun-brandishing episodes where the weapon was never fired, armed robberies where the criminals never tried to execute the customers present, and shootings that did not involve enough targeted victims to constitute a mass shooting. Seventeen of the 39 were actual mass-shooting situations. Out of this subset, the armed intervenor in six of these incidents was a law enforcement officer or armed security guard (not a private citizen). In two cases, armed civilians drew their weapons and helped detain the perpetrators, but only after the shootings had concluded. (Neither defender in these two incidents actually used his weapon to end the rampage.) In five shootings, the attempted defensive gun uses failed to stop the attacks, with the armed intervenors shot in three of these instances.<sup>28, 18, 29</sup> Over a 26-year period, only four incidents that were actual rampage shootings in progress were terminated by the actions of an armed civilian.

An FBI study that examined 160 active shootings in the United States during 2000-2013 also provides reason to be suspect of claims that civilian defensive gun uses figure prominently in terminating ongoing gun rampages. FBI researchers found only one incident that involved an armed civilian intervening to end an attack in progress. The civilian in that incident (which is also one of the interventions cited by Klarevas) involved a U.S. Marine with a concealed-firearms license shooting a man attacking patrons in a Nevada bar. In another four incidents, the attacks were brought to an end when armed security guards shot the perpetrators. By contrast, the FBI found that 21 of the 160 active shooting incidents were interrupted when unarmed civilians confronted and restrained the gunmen. The FBI's data suggest that unarmed civilians are more than twenty times likely to successfully end an active shooting than are armed civilians.<sup>30</sup>

Of course, some incidents could potentially have led to mass shootings had an armed civilian not intervened quickly to prevent more casualties. Klarevas's review of civilian-interrupted mass shootings would miss some instances of this sort. However, allowing more civilians to carry firearms into more public places could also facilitate more mass shootings. The Violence Policy Center has tracked incidents in which a concealed carry weapon (CCW) permit holder was alleged to have committed various crimes of violence and unintentional shootings. They identified 29 CCW holders who perpetrated non-defensive shootings that involved three or more deaths not including the shooter during the period 2007-2015.<sup>31</sup>

### Defensive and Hostile Gun Use by Civilians

Debates surrounding policies about guns on college campuses hinge on differing views about civilian use of firearms including the likelihood that a person can successfully use a firearm to ward off a criminal assailant in comparison to the likelihood that a person carrying a gun might be prompted to use his or her gun in hostile or even criminal ways. Unfortunately, there are no surveillance systems designed to identify and verify acts of self-defense with guns. The best available data on the phenomena come from the National Crime Victimization Survey (NCVS) which interviews a nationally representative sample (after weighting) of approximately 90,000 households and over 158,000 individuals age 12 years and older. Households remain in the NCVS sample for three years and eligible individuals are interviewed every six months about their experiences in which they were a victim of crime, any actions that they took in response to the attempted or actual crime, and outcomes such as whether or not they were injured in the crime. Response rates for households and individuals within those households are typically around 85%, an exceptional rate for survey research.

David Hemenway and Sara Solnick recently published a study based on data from the NCVS for the five-year period 2007-2011 to examine the use of guns by crime victims and estimate the effects of victims using a gun in response to a crime versus others actions commonly taken by crime victims.<sup>32</sup> During the study period, there were 62 cases in which a NCVS respondent reported being a victim of a violent crime<sup>iii</sup> and used a gun in self-defense and an additional 65 who used a gun in property crimes or situations involving only verbal threat to the victim. These 62 incidents represented 0.9% of all violent crimes reported (6,663) and accounted for 8.1 incidents per 100,000 population per year or a total of 102,478 self-defense gun uses (SDGUs) against violent crimes annually. In less than one fifth of the incidents of reported SDGU, the offender was also armed with a gun. Seventy-three percent of SDGUs reported by men and 48% of SDGUs reported by women occurred away from their homes. None of the SDGUs over the five-year period involved sexual assaults.

#### *Victim Gun Use in Response to Criminal Acts Do Not Affect Victims' Risk of Injury*

In this study, Hemenway and Solnick also examined victims' risk of being injured after taking any of thirteen specific actions volunteered by NCVS respondents when asked what they did or tried to do about the incident while it was going on. Four percent of those who reported a SDGU reported being injured after attempting to protect themselves with a gun; a virtually identical odds of injury among all victims who took *any* act of self-protection. **After controlling for a host of contextual factors, self-defensive gun use did not significantly affect victims' risk of being injured in the criminal act.** Most victims who are injured in crimes are injured before they can take any protective action. Prior studies suggesting SDGU reduces victims' injury risk used NCVS data that did not distinguish victim injuries that occurred before versus after protective actions such as SDGU took place and, thus, could not ascertain causal connections between SDGU and injury risks.<sup>33,34</sup>

The NCVS does not ask respondents whether they used a gun in a hostile or unlawful manner. Drawing upon NCVS victimization data for the five years studied by Hemenway and Solnick (2007-2011)

<sup>iii</sup> Violent crimes examined include physical assaults, both sexual and non-sexual, and robberies.

and including firearm homicides for those years, there were 3.6 victimizations involving firearms for every self-reported SDGU in response to a violent crime.<sup>iv</sup> It is unknown what percentage of the criminal uses of guns nationally were committed by individuals who owned guns legally. **However, data from a nationally representative survey of state prison inmates and determined that of those who were incarcerated for committing a violent crime with a firearm in the thirteen states with the lowest legal standards, 60 percent legally possessed the firearms when they committed the crime.**<sup>35</sup>

The true incidence of SDGU may be significantly lower than indicated by the NCVS because the data are based on self-reports and determining who is the aggressor and who is the victim in interpersonal altercations can be highly subjective. Hemenway and colleagues fielded two surveys of a nationally representative sample of gun owners to ascertain gun owners' reports of both defensive uses of guns and hostile uses of guns against respondents. Respondents were asked to describe these incidents in some detail and five criminal court judges were asked to review the narratives and assess the probable legality of self-reported use of guns.<sup>36</sup> **In the majority of the self-reported SDGUs, most criminal court judges considered the actions taken by the respondent with their guns to be "probably illegal" due to inadequate justification for using deadly force.** The judges' were told to assume that the respondent had a valid permit to own and carry the gun, and that the respondent had described the event honestly.

An alternative source of data on SDGU to the NCVS is a national phone survey of 4,977 gun owners directed by criminologist Gary Kleck in the early 1990s. In this survey, 56 (1.1%) respondents reported having used defensively used a gun within the past 12 months in situations in which they report being the would-be victim of a crime. Kleck used these data to make a projection that 2.5 million times per year a U.S. citizen used a firearm defensively in situations when someone was committing or attempting to commit a crime – about 22 times higher than the estimate from the NCVS.<sup>37</sup> The projections from Kleck's survey are discordant with data from other sources relevant to crime and violence, calling into question the validity of the data. For example, Kleck's survey data extrapolate to over 200,000 assailants shot by civilians defending themselves against crime each year. During the early 1990s when the survey was conducted there were approximately 300 deaths per year that were recorded as justifiable homicides committed by civilians using firearms.<sup>38</sup> There is no direct measure of criminals suffering nonfatal wounds as a result of being shot by civilians defending themselves, but the CDC's surveillance systems for tracking all deaths and a nationally representative sample of nonfatal injuries treated in hospitals indicates that there are roughly four to five persons suffering nonfatal gunshot wounds in assaults or incidents of undetermined intent for every fatal gunshot wound with the same external cause. That would suggest that about no more than 1,800 persons shot by civilians defending themselves against criminal attacks for the period that Kleck's survey projects 200,000 – a wounding rate more than 100 times higher than indicated in hospital surveillance systems.

### **The Impact of Laws Expanding Civilians Ability to Carry Firearms in Public Places**

In 2005 the National Research Council reviewed the then-current information with data through 2000 concerning the impact of state laws allowing citizens to carry concealed weapons.<sup>39</sup> Noting that the estimated effects of so-called right to carry (RTC) laws were highly sensitive to the particular choice of

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<sup>iv</sup> The NCVS reported a total of 1,784,547 incidents in which respondents reported crime victimization by assailants wielding firearms and the CDC's vital records indicate a total of 58,450 homicides with firearms for an average of 368,599 victimizations per year over the five-year period.

explanatory variables, the report concluded that the evidence was too uncertain to determine the impact of RTC laws on crime.

A major obstacle to generating a valid estimate of this impact was that most of the studies looking at this question included data for the period from 1985 through the early 1990s when violent crime rose sharply in certain areas, such as California, New York, and the District of Columbia, owing principally to the introduction of crack cocaine. Since all three of those jurisdictions and a number of other states with the worst crack problems (e.g., Maryland, New Jersey) also did not adopt RTC laws, any panel data analysis that did not control for the criminogenic influence of crack would necessarily generate a biased estimate of the impact of RTC laws that would make them appear to be either less harmful or more beneficial than they actually were in influencing crime. This was a major problem for the original study of RTC laws by John Lott and David Mustard and subsequent analyses by Lott.<sup>17,19,40</sup> But this problem plagues every panel data analysis of RTC laws, except for those that started *after* the impact of crack had been full dissipated in the very late 1990s or early 2000s.<sup>v</sup>

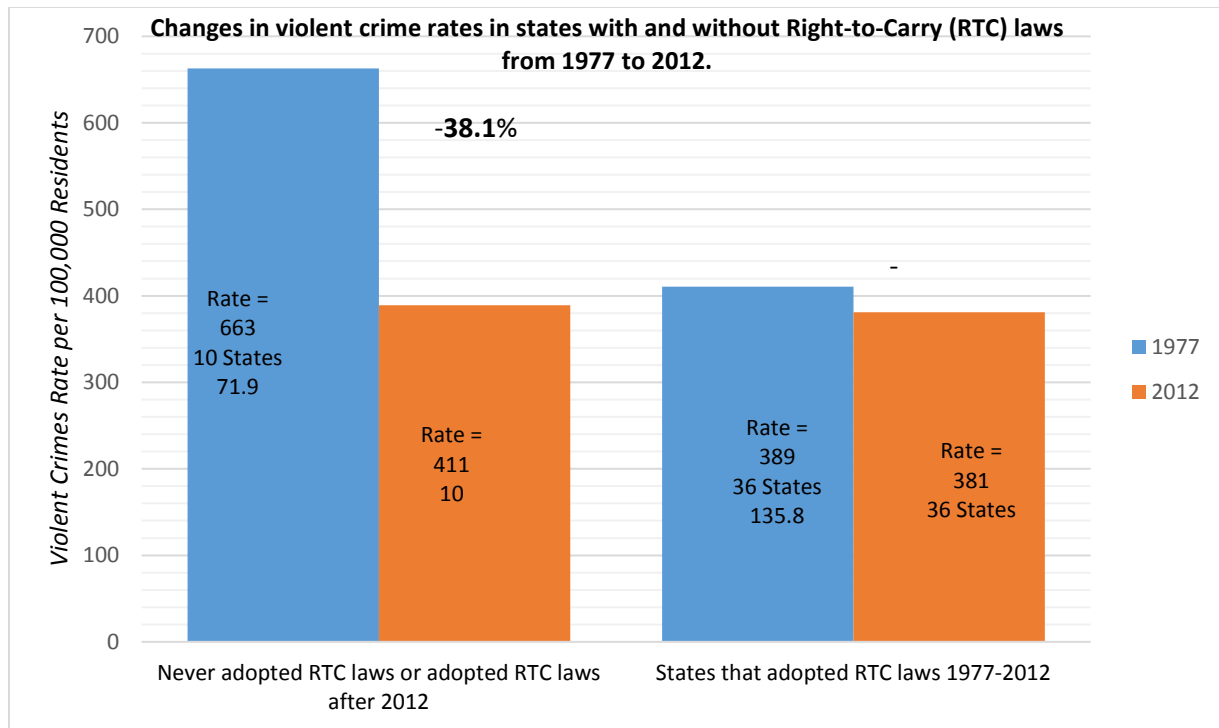
A quick but admittedly crude way to address this problem is to present a difference-in-differences comparison between the 36 states that adopted RTC laws over the period 1977-2012 and the ten states that did not adopt these laws. By comparing the change in crime from a period before crack emerged to a year well after its impact had dissipated, one can eliminate the impact of crack on crime (although of course this simple comparison does not control for other influences on crime that differed over this period for the two sets of states). Figure 1 shows that the ten non-RTC states enjoyed a 38.1% drop in their violent crime rate from 1977 to 2012, while the 36 adopting states had almost no change in violent crime over this period (a decline of 2% over a 35-year period).

This simple evidence is suggestive that RTC laws tend to exacerbate violent crime (controlling for the influence of crack but not for other explanatory variables). Obviously, this chart would overstate the harm of RTC laws if, say, the non-adopting states had increased their per capita rates of incarceration or police personnel more than the adopting states, thereby suppressing violent crime through those mechanisms (which could then potentially explain the relatively better experience with violent crime over the 1977-2012 period in the non-adopting states). In fact, the opposite is true. The adopting states had considerably larger percentage increases relative to the non-adopting states over this time period in their rates of incarceration (262% vs. 221%) and police staffing (61% vs. 26%). The relatively better crime performance of non-RTC-adopting states in the raw comparison of in the figure below could be even greater if one were to control for the influence on violent crime of police and incarceration.

Of course, many factors in addition to police, incarceration, and crack influence crime and the challenge for researchers who seek to find the impact of a single factor such as RTC laws is to account for those factors that may also be correlated with RTC adoption in an appropriately specified statistical model. A number of panel data analyses conducted since the publication of the NRC report have tried to control for a host of explanatory variables. These models, however, have not adequately controlled for the criminogenic influence of crack (thereby making RTC laws look better) as well as other factors that are likely to bias the estimated effects of RTC laws.

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<sup>v</sup> See the discussion of Zimmerman (2015) below.



***The Most Recent Rigorous Research Studies Find RTC Laws Linked to Increased Violence***

Donohue, Aneja, and Webber attempted to address these deficiencies with state panel data analyses that extended the NRC data by twelve years, during which time eleven additional states adopted RTC laws, to 1979-2012. Two models were used to explore the relationship between RTC laws and crime. Model 1 estimated shifts in the level of crime after RTC adoption and model 2 estimated RTC laws' association with changes in crime trends or slopes. Both models indicated that violent and property crime both increased in response to the adoption of RTC laws. Specifically, violent crime was 12.3% higher after adoption of RTC laws and violent crime increases about 1.1% more for each year RTC laws are in effect.

New and sophisticated techniques are being employed to assist researchers in finding the best set of control states that have violent crime patterns most similar to the states adopting new laws. Research by Durlauf, Navarro, and Rivers attempts to sort out the different specification choices between Aneja, Donohue, and Zhang, and Lott and Mustard, using a Bayesian model averaging approach.<sup>41</sup> Applying this technique to analyze the impact of RTC laws using county data from 1979-2000, the authors find that in their preferred spline (trend) model, RTC laws *elevate* violent crime rates by 6.5% in the three years after RTC adoption, with the effects growing over time. A recent report from the Brennan Center based on state-level data for 1979-2012 indicates that violent crime increased, on average, 10% following RTC law adoption.<sup>42</sup> Zimmerman (2015) examined the impact of various crime prevention measures on crime using a state panel data set from 1999-2010. The findings from this study revealed statistically significant increases in murder, robbery and assault associated with RTC law adoption. Estimating so-called synthetic controls for states that adopt new policies is a relatively new technique to evaluate the impact of state policy changes on violent crime and other outcomes. This

approach addresses some of the challenges posed by regression analyses with panel data from 50 very disparate states. Webber, Donohue, and Aneja used this approach and found evidence that RTC laws increase violent crime by 12% to 18% over the ten years after adoption. These results are broadly consistent with the bulk of the panel data estimates cited above and are inconsistent with the outlier results generated using the Lott's model specifications. One difference between the two analytic approaches is that the panel data estimates typically found that RTC laws were associated with increases in both violent and property crime, while the synthetic controls estimates only found evidence that RTC laws increase violent crime.

Some final comments should be made about the likely mechanisms between adoption of RTC laws and increased crime, which the statistical studies do not directly address. First, the supporters of RTC laws frequently cite evidence that permit holders, as a group, are arrested for violent crimes at relatively low rates.<sup>43</sup> But the important policy question is whether having a CCW (and carrying a gun on one's person or in one's vehicle) affects CCW holders' risk of committing acts of violence and whether having more people carrying firearms will increase or decrease the incidents of violent crime and the lethality of those incidents. Ready access to a loaded firearm is likely to have a greater impact on risk of committing serious acts of violence among individuals with a history of violence, recklessness, substance abuse, or those prone to impulsivity or angry outbursts. Passing a background check when the principal criteria for denial are a convictions for either a felony crime or misdemeanor domestic battery, having a current domestic violence restraining order, or having been adjudicated mentally incompetent or a serious threat to self or others due to mental illness is no guarantee that a person is not prone to violence and can be trusted to carry a loaded concealed firearm in public places.<sup>44,35</sup> CCW holders do commit serious crimes with guns including murder and mass shootings.<sup>31</sup>

Second, RTC laws can increase crime in many ways even if the permit holders are not committing it. The ability to carry a gun may embolden some permit holders to incite criminal responses to their provocative behavior, as some have alleged in the George Zimmerman case leading to the death of Trayvon Martin. Criminals may also be more likely to carry weapons in response to RTC adoption and more likely to be aggressive towards their victims if they fear armed opposition. Guns carried outside the home because of RTC laws are potentially more likely to be lost or stolen, especially when left in motor vehicles, which can expand criminals' access to guns. Finally, the presence of more guns can complicate the job of police and simply take up more police time as they process applications and check for permit validity when they confront armed citizens. The recent July 2016 shooting by police of concealed carry permit holder Philando Castile in Minnesota underscores how the introduction of a gun by a law-abiding citizen can end in tragedy.

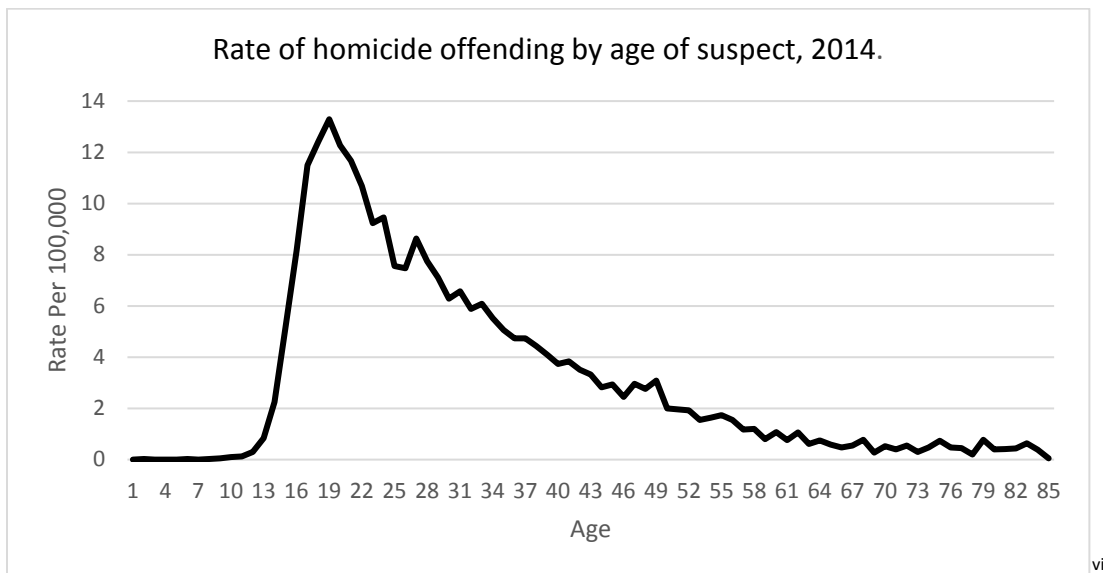
### **Why the College Campus Environment is Ill-Suited for the Civilian Gun Possession**

The broader research literature on civilian gun use and policies that allow civilians to carry concealed firearms has not examined the experience or implications of policies that allow students, staff, faculty, or visitors to carry firearms onto college campuses. Relevant to this discussion is the frequency and nature of events where civilians might use firearms at their disposal, the capacity and proclivities of adolescents and young adults of typical college age to make prudent decisions about when or how to use firearms, the onset of severe mental illness during young adulthood, the frequency of binge drinking of alcoholic beverages among college students and the violence that stems from that drinking. In addition, suicidal ideation and behavior is common during late adolescence and early adulthood and increasing access to firearms through policies that allow guns onto college campuses

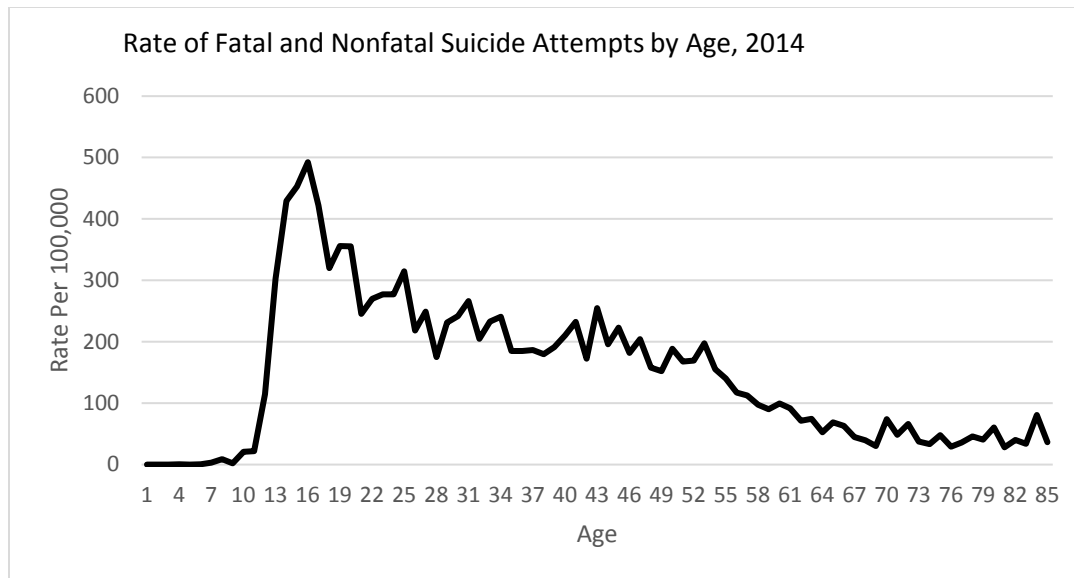


could increase risk of suicide among college students. Due to a variety of developmental, psychological, and sociological reasons, age-specific homicide offending rates increase dramatically during adolescence, peaking at age nineteen, and are highest during the age span of most college students (18-24 years). Suicide attempts that lead to hospital treatment or death also rise dramatically and peak during the years that most youth enter college.

A recent study identified 85 incidents of shootings or undesirable discharges of firearms on college campuses in the U.S. from January 2013 through June 2016. Only two of these 85 incidents (2.4%) involved a shooter on a rampage. The most common incidents were interpersonal disputes that escalated into gun violence (45%), premeditated acts of violence against an individual (12%), suicides or murder/suicides (12%), and unintentional shootings or discharges (9%).<sup>45</sup>



Homicide data obtained from the FBI's, Uniform Crime Reporting Program, Supplemental Homicide Reports, 2014. Data on age-specific population estimates were obtained from the Centers for Disease Control and Prevention and generated by US Census Bureau. <https://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>



Data obtained from the Centers for Disease Control and Prevention's Web-based Injury Statistics Query and Reporting System (WISQARS), Fatal and Nonfatal Injury Reports, 2014. <https://www.cdc.gov/injury/wisqars/>

### Brain and Cognitive Development in Adolescence and Emerging Adulthood

Adolescence and emerging adulthood is a time of tremendous change in the biological systems that support decision-making, emotional and behavioral regulation, and motivation. As has been widely documented in the lay press and in the scientific literature, the brain's higher association areas (e.g., prefrontal cortex or PFC), among other areas, continue to change well into the third decade of life.<sup>46-48</sup> Areas of the PFC are part of the circuitry that supports self-control, including impulse control and inhibition, judgment, and long-range planning.<sup>47,49</sup> These skills are essential for safe firearm storage and use, and for appreciating and avoiding the circumstances in which firearm use is likely to lead to tragedy.

Risky decision-making in adolescence/early adulthood is due, in part, to changes in both frontal/limbic balance in the developing brain and changes in the connections between the PFC and limbic subcortical structures that support emotional and behavioral regulation.<sup>49</sup> While the PFC and other higher order association areas mature relatively late, limbic areas are dense with hormone receptors that are awakened during puberty.<sup>50</sup> Limbic areas play a key role in the circuitry that supports emotions, reward systems, and drives. When limbic influences predominate, drives toward sex aggression are heightened, and social relationships become particularly important.<sup>51</sup> Similarly, dopamine receptors proliferate in the striatum--part of the brain's motivational circuitry--before they proliferate in the PFC, which may also help explain why adolescent behavior is biased toward motivation rather than inhibition.<sup>49</sup>

Compared with adults and younger children, adolescent decision-makers are particularly sensitive to social and emotional cues in the environment, and are more sensitive to stress, both psychologically and biophysically.<sup>52-55</sup> A number of studies demonstrate that adolescents' self-control is vulnerable in the face of potential rewards (e.g., peer approval and acceptance).<sup>56,57</sup> Similarly, in laboratory studies, adolescents have been shown to demonstrate poorer emotional regulation in the context of threat than other age groups. For example, in a self-control task, Dreyfuss et al. found that compared to their older and younger peers, adolescents, particularly males, were more likely to react

impulsively to threat cues (compared to neutral cues); a finding that was mediated by differences in limbic activation in brain areas that support emotion regulation.<sup>58</sup>

**In summary, typical developmental processes in adolescence are associated with more risk-taking, and poorer self-control in the transition to adulthood. Guns may be called on in the very situations in which adolescents are most developmentally vulnerable: in the context of high emotional arousal, situations that require rapid, complex social information processing, those that involve reinforcing or establishing peer relationships (i.e., showing off), or in conditions of perceived threat.**

### **Onset of Mental Illness, Youth Suicide and Access to Firearms**

College students are vulnerable to a range of mental health issues. The stress associated with the life transitions inherent in college attendance – leaving home, exploring new social identities, developing new peer groups, managing challenging coursework and extracurricular activities – place students at risk of conditions like depression and anxiety.<sup>59</sup> The majority of mental disorders have their onset by age 24.<sup>60</sup> Studies have demonstrated high prevalence of clinical depression and anxiety among college students: one study found that 14% of undergraduate students and 11% of graduate students at a large public University with a demographic profile similar to the overall U.S. student population screened positive for depression, and 4% of undergraduates and 5% of graduates met criteria for anxiety.<sup>61,62</sup> Despite the high burden of mental illness among college students, many go untreated. While mental illness treatment rates vary across campuses, one study of students on 26 campuses across the U.S. found that on average, only 36% of students who screened positive for mental illness had received treatment in the past year.<sup>63</sup>

Of particular concern in the context of proposals to allow students to carry firearms on campus is the risk of suicide associated with mental illnesses, especially depression, among this group. In a national survey of undergraduates conducted in 2015 about events within the past 12 months, 8.9% reported “seriously considering attempting suicide” and 1.4% had attempted suicide.<sup>64</sup> A study of students from 645 U.S. college campuses found increased rates of suicide among college students in 2008-2009 compared to 2004-2005: the suicide rate increased from 6.5 to 7.7 per 100,000 students.<sup>65</sup> **Importantly, a firearm was the leading method for suicide among males, accounting for nearly a third (31%) of all suicides among male college students.**<sup>65</sup> For females, firearms were the third leading cause of suicide (10% of all suicides in this group), behind hanging (29%) and poison (16%).<sup>65</sup> This gender differential in firearm suicide on college campuses mirrors the differential in the overall U.S. population.<sup>66</sup> **A large body of literature clearly shows that firearm access is associated with increased rates of suicide, suggesting that increased access to firearms on college campuses could significantly increase suicide in this vulnerable group.**<sup>67,68</sup>

The combination of challenges with impulse control, emotional regulation, and onset of mental illness contribute to high rates of suicide and suicide attempts among adolescents and young adults. In 2014, suicide was the second leading cause of death in the U.S. among college age youth 17-24 years old.<sup>69</sup> Between 1999 and 2014, the suicide rate in this age group increased 12% from 11.3 to 12.7 per 100,000.<sup>69</sup> Firearms represent an extremely lethal means of intentional self-harm; approximately 90% of suicide attempts with a firearm resulted in a fatality compared to 3% for poisoning attempts.<sup>70</sup> In 2014 among males age 17-24 who died by suicide, 49% used a firearm.<sup>69</sup>

Some suicide risk factors differ among those under age 25 compared to older populations. Emotional control, impulsivity, and decision making continue to develop into the mid-20s, which can put youth at higher risk for suicide.<sup>71</sup> In addition to being more impulsive, young individuals tend to be more vulnerable to a contagion effect after exposure to suicide within their community.<sup>72</sup> Suicide risk is often highest in the early stages of the onset of major psychiatric conditions and these symptoms often first develop in childhood or early adolescence.<sup>60,73</sup> The risk of suicide among youth also increases with age; 2.6 per 100,000 among boys age 10-14 compared to 22.9 per 100,000 among young men age 20-24.<sup>69</sup>

Suicide attempts (whether fatal or nonfatal) may occur in the context of an underlying mental health condition such as depression and/or alcohol or drug misuse.<sup>74,75</sup> Many suicides also have an impulsive quality and are often precipitated by an acute stressor (e.g. loss of a relationship, trouble with the law or school, humiliation, job loss).<sup>67</sup> The majority of those who survive an attempt do not go on to die by suicide; a suicide prevented is a life saved.

The lethality of a given means or method of suicide attempt accounts for a substantial portion of the variation observed in suicide mortality and points to the unrealized potential for means restrictions strategies to reduce suicide. The method used for a suicide attempt depends on availability; there is a strong association between the availability of firearms in households and death by suicide. Having ready access to firearms is linked with suicide not only for the gun owner but for all members of the household, especially for children and adolescents.<sup>76-78</sup>

Studies of the relationship between the presence of guns in the home and risk for suicide among younger populations have found that the risk of suicide is two- to five-fold higher for all household members in homes with firearms.<sup>76,77,79,80</sup> These studies have reported limited evidence of substitution of methods; restricting access to firearms did not lead to increased use of other methods of suicide attempt. An analysis of changes to Connecticut and Missouri's permit to purchase handgun purchaser licensing laws also indicate that these laws – which both screen out some individuals at high risk of suicide and reduce guns purchased in response to a suicidal impulse – play a role in reducing firearm suicide risk.<sup>81</sup> Reducing the availability of highly lethal and commonly used suicide methods has been associated with declines in suicide rates of as much as 30%–50% in other countries and can be especially influential in younger populations.<sup>82</sup>

Safe gun storage practices (e.g., using a gun safe or storing ammunition separate from an unloaded gun), which can be required by state law, are associated with a decreased risk for adolescent suicide.<sup>78,83</sup> This association is especially strong in the 15-19 year old age group, which implies that restricting access to a firearm is likely to have the biggest impact during the age characterized by higher impulsivity.<sup>84</sup> The potential for unsafe storage of firearms, if firearms were permitted in college dorms, is a concern and could elevate suicide risks to anyone who has access to a firearm owner's room.

### **Alcohol Abuse and Violence on College Campuses**

A large international literature has established a close association between alcohol use and violence.<sup>85</sup> Culture can structure and determine the strength of this relationship through such variables as frequency of drinking to intoxication or consumption of high-alcohol beverages, and expectations about drinking behavior or the situational appropriateness of aggression.<sup>86</sup> College drinking cultures possess all of these attributes. U.S. college students drink frequently and at high levels: nearly 60% of 18-22 year-old college students reported drinking the past month; 37.9% reported binge drinking (defined as five or more drinks within two hours).<sup>87</sup> Among young men in particular, research has found

that expectations about the acceptability of violent action while intoxicated may precede actual acts of violence while drinking.<sup>88</sup> Among college students, there appears to be a normative belief that abusive behavior is more common and less abusive when alcohol is involved for psychological and moderately severe physically abusive behaviors.<sup>89</sup>

The interaction between college drinking cultures and violent behavior helps to explain the high prevalence of alcohol-related violence in college populations. In the general population, CDC estimates that every year, there are 7,756 homicides attributable to alcohol use; 1,269 of these happen to persons younger than 21.<sup>90</sup> Hingson et al. have estimated that 600,000 college students annually are assaulted by another student who has been drinking.<sup>91</sup> The Bureau of Justice Statistics reported that alcohol was involved in 41% of on-campus violence and 37% of off-campus violence for students who lived on campus, and 18% of on-campus violence and 31% of off-campus violence for students living off campus.<sup>92</sup>

Sexual violence is another significant risk when alcohol is in the mix. On college campuses, 88% of male college rapists who used force to commit the rape also used alcohol or drugs, and college males who rape incapacitated women are more likely to drink right before the rape.<sup>93</sup> Alcohol use also increases the likelihood of assault occurring for women. A meta-analysis and systematic review have concluded there is a clear positive association between alcohol consumption and physical and sexual violence for women. Longitudinal data suggests this relationship is bidirectional, meaning that women who are victims of interpersonal violence tend to drink more and women who drink more are more likely to be victims of interpersonal violence.<sup>94</sup>

One factor that can moderate the relationship between alcohol use and violence on campus is the density of alcohol outlets around a college campus. According to one study of 32 colleges, on- and off-premise outlet densities were associated with campus rape-offense rates. Student drinking level was associated with both campus rape and assault rates, and mediated the effects of on- and off-campus alcohol outlet density. Campuses with greater densities of alcohol outlets had higher drinking levels, which in turn explained higher rates of violence on those campuses.<sup>95</sup>

Thus both culturally and ecologically, college campuses can present a “lit fire” in which interpersonal violence is prevalent (according to the Bureau of Justice Statistics, one in 10 college students has experienced a violent crime<sup>92</sup>), and worsened by the addition of alcohol use. To this potentially incendiary situation should be added data on the relationship between gun ownership on college campuses and alcohol use. Two studies from the 1990s looked at this relationship. **One found that students with guns were more likely to be binge drinkers and to need to start the day with alcohol;**<sup>96</sup> **the other revealed that those who self-reported binge drinking or engaging in risky or aggressive behavior after drinking were not only more likely to have guns at college but also more likely to be threatened by a gun while at college.**<sup>97</sup>

### **Implications of Guns on Campus for Campus Security and Law Enforcement**

For a police officer, the decision to apply deadly force is taken seriously and discussed in training throughout his or her career.<sup>98</sup> The decision in a crisis, such as an active shooter event, occurs in an atmosphere of chaos and panic, and is often over in a matter of minutes, if not seconds.<sup>99</sup> Like police officers, students or faculty attempting to use a gun to end an active shooter situation would be expected to assess the situation, ensure a clear line of fire, shoot well, minimize loss, and bring the

situation to closure. While an entire active shooter situation may last longer, the actual shooting and opportunity to stop the suspect may be momentary.<sup>24</sup>

Police officers routinely experience high anxiety/high threat situations – including home invasions, intrusion alarms, armed robberies, suspicious circumstances, traffic stops, and prowlers – and are prepared to take whatever action is necessary to safely end these incidents. Despite their training and frequent exposure to high-risk and life-threatening events, evidence shows that police officers do not shoot accurately in a crisis encounter; though officers who participate in simulation or other high-stress training tend to shoot somewhat more accurately in a crisis than those who do not.<sup>24,100-103</sup> The idea that students or faculty could shoot as well as trained police officers in an active shooter situation is highly questionable given what we know about police performance in high stress situations. Additionally, consideration must be given to the possibility of police officers not being able to differentiate a student or faculty member with a gun from the perpetrator during the response to an active shooter situation. There are numerous examples of this happening, creating confusion and, in some instances, resulting in civilians being unintentionally shot by law enforcement.

Much of the discussion and debate about allowing the carrying of guns on campus revolves around this concern over active shooters; however, the issue is more extensive.<sup>104</sup> While active shooter situations are rare, colleges and universities have responded well to this threat by establishing policies and plans, conducting training and drills, implementing threat assessment teams, and embracing the national Incident Command System.<sup>105-107</sup> There are other situations that occur far more frequently on college campuses, such as disorderly conduct, abuse of alcohol and dangerous substances, intimate partner violence, suicide threat, faculty-student disputes, fights, and trespass. These types of incidents deserve more attention because response to these incidents will change based on the potential increase in the presence of guns due to laws allowing the right to carry on campus.

While there is no evidence to aid in predicting how many students will carry guns on campus if bans are lifted, campus police and security officers must assume that weapons may be present in many situations, especially those involving groups and crowds.<sup>108</sup> Most campus officers routinely respond to situations in which information is sparse. They respond to calls such as “suspicious person,” “suspicious circumstance,” “911- hang up,” and “alarm sounding” often with no additional information. If the presence of guns must be assumed, the level of seriousness, tactics used, and necessary precautions taken in response to such calls are elevated. Tactical changes may include greater reliance on back up officers, assessing and questioning individuals about the presence of weapons, scanning the environment for protective cover, and moving quickly to resolve aggression and threat without limiting the time spent to de-escalate. Local and state police who are called to assist in campus situations will implement similar precautions and changes in approach. The perception of increased likelihood of situations in which there may be a gun present could simultaneously increase the risk of shooting, intentional or otherwise, by police or campus security while responding to calls.

## Conclusion

The best available research contradicts many claims and assumptions that underlie policies to allow civilians to bring firearms onto college campuses. Gun ownership and gun carrying in many states is common, but successful and warranted civilian defensive gun use is relatively rare. Concealed carry permit holders have passed criminal background checks and, as a group, commit crimes at a relatively low rate. But, in states with the most lax standards for legal gun ownership, 60% of individuals incarcerated for committing crimes with guns were legal gun owners when they committed their crimes.



Some who are legally allowed to own and carry firearms in public places have histories of violence and recklessness. Many states relaxed restrictions on concealed and open carrying of firearms based on claims that such policies reduced violent crime. But the best available evaluations of these policies indicate that these right-to-carry laws increase violence.

Some have blamed rampage shootings, including those on college campuses, on “gun free zones,” and they have claimed that the best deterrent to such shootings is to remove virtually all restrictions on civilian gun carrying. Indeed, much of the impetus for policies to allow guns on college campuses has been to reduce mass shootings or the number of casualties from those shootings by enabling armed civilians to intervene. Yet the number of people shot in mass shootings in the U.S. has increased dramatically during the past decade – a period that coincides with the removal of restrictions on public gun carrying and a push to make gun carrying in public more normative. New research on fatal mass shootings demonstrates that: 1) right-to-carry laws do not decrease mass shootings or the average number of people shot in those incidents; 2) the overwhelming majority of fatal mass shootings occur in places where guns are allowed; and 3) when rampage shootings do occur, very rarely are they stopped by gun-wielding civilians.

While the net effect of right-to-carry gun policies have negatively impacted public safety broadly, their effects are likely to be far more deleterious when extended to college campuses. Risks for violence, suicide attempts, alcohol abuse, and risky behavior are greatly elevated among college-age youth and in the campus environment. The presence of firearms greatly increases the risk of lethal and near-lethal outcomes from these behaviors and in this context. Even if allowing more guns on college campuses did have some protective effect against rare mass shootings on campuses – and available evidence suggests that this is not the case – the net effect on the safety of college students, faculty, and staff is likely to be more deaths, more nonfatal gunshot wounds, and more threats with a firearm that are traumatizing to victims.

## Author Bios

### Daniel W. Webster, ScD, MPH

Daniel W. Webster, ScD, MPH, is a Professor of Health Policy and Management at the Johns Hopkins Bloomberg School of Public Health, where he serves as Director of the Center for Gun Policy and Research and Deputy Director of Research for the Center for the Prevention of Youth Violence. He is one of the nation's leading researchers studying gun policy and has published numerous articles on the prevention of gun violence, firearm policy, youth gun acquisition and carrying, intimate partner violence, and the prevention of youth violence. He is co-editor and contributor to *Reducing Gun Violence in America: Informing Policy with Evidence and Analysis* (Johns Hopkins University Press, 2013). Dr. Webster helps lead the Johns Hopkins-Baltimore Collaborative for Violence Reduction and conducting studies evaluating the effects of various efforts to reduce violence, including state gun policies, policing strategies focused on deterring gun violence, drug law enforcement practices on gun violence, and a community gun violence prevention initiative. He is also leading a study of Baltimore's underground gun market. Dr. Webster teaches courses in violence prevention at Johns Hopkins Bloomberg School of Public Health. He has advised the White House, Congressional leaders, state and local officials on policies to reduce gun violence. In 2015, Dr. Webster received the American Public Health Association's David Rall Award for Science-Based Advocacy.

### John J. Donohue, III, PhD, JD

John J. Donohue III is the C. Wendell and Edith M. Carls Smith professor of law at Stanford University. He is well known for using empirical analysis to determine the impact of law and public policy in a wide range of areas, including examinations of the impact on crime of the death penalty, incarceration, guns, and the legalization of abortion. Other work by Donohue has explored the benefits from stronger efforts to fight racial discrimination in employment and in school funding, and examined the issues involved in the regulation of illegal substances. Before rejoining the Stanford Law School faculty in 2010, Professor Donohue was the Leighton Homer Surbeck professor of law at Yale Law School. Earlier in his career, he was a law professor at Northwestern University as well as a research fellow with the American Bar Association. Additionally, he clerked with Chief Justice T. Emmet Clarie, of the U.S. District Court of Hartford, Connecticut. He is a member of the American Academy of Arts and Sciences, the former empirical editor of the *American Law and Economics Review*, and the former president of the American Law and Economics Association. He received his B.A. from Hamilton College, his J.D. from Harvard University, and his Ph.D. in economics from Yale University.

### Louis Klarevas, PhD

Dr. Louis Klarevas is Associate Lecturer in the Department of Global Affairs at the University of Massachusetts – Boston. He is the author of *Rampage Nation: Securing America from Mass Shootings* (Prometheus Books, forthcoming in 2016). A former Senior Fulbright Scholar in Security Studies, he has also taught at American University, George Washington University, the City University of New York, and New York University. During the early phases of the Iraq War, he served as the Defense Analysis Research Fellow at the London School of Economics. Before joining the ranks of academia, he served as a research associate at the United States Institute of Peace. His articles and commentaries have appeared in a variety of prominent news outlets, including *The Atlantic*, *Forbes*, *The New Republic*, *The*

Huffington Post, The New York Daily News, New York Newsday, The Washington Post, The Washington Times, and Vice. He has also appeared as an expert on numerous news networks, including ABC, BBC, CBS, CNN, and NPR. Dr. Klarevas holds a B.A. from the University of Pennsylvania and a Ph.D. in International Relations from the School of International Service at American University.

**Cassandra K. Crifasi, PhD, MPH**

Dr. Crifasi is an Assistant Professor in the Department of Health Policy and Management at the Johns Hopkins Bloomberg School of Public Health and a core faculty member in the Center for Gun Policy and Research and the Center for Injury Research and Policy. Her research focuses on injury epidemiology and prevention, firearm policy, and the development, implementation and evaluation of policies, practices, and procedures on public safety and first responders. She teaches courses in research and evaluation methods for health policy and currently serves as the Deputy Director of the Johns Hopkins-Baltimore Collaborative for Violence reduction. Dr. Crifasi's recent research examined the affect changing state policies have on the assault and homicide of law enforcement officers in the United States. She received her PhD in Health Policy and Management in 2014 from the Johns Hopkins Bloomberg School of Public Health and an MPH in Environmental and Occupational Health from the Drexel University School of Public Health in 2010.

**Jon S. Vernick, JD, MPH**

Jon S. Vernick, JD, MPH, is an Associate Professor of Health Policy and Management at The Johns Hopkins Bloomberg School of Public Health and Co-Director of the Johns Hopkins Center for Gun Policy and Research. Jon Vernick is the primary instructor for courses on Issues in Injury and Violence Prevention, and Public Health and the Law. He is also Co-Director of the MPH/JD Program at Johns Hopkins. Jon Vernick's research has concentrated on ways in which the law and legal interventions can improve the public's health. He is particularly interested in epidemiologic, policy, legal, and ethical issues associated with the prevention of firearm and other injuries. He has also studied legal aspects of motor vehicle safety, tobacco control, public health preparedness, and obesity prevention, having published more than 75 scholarly articles and reports on these and other topics. Prof. Vernick is committed to translating research findings into policy change, regularly working with legislators, media, courts, and advocates to provide information about effective policies. Jon Vernick earned his BA from the Johns Hopkins University, a JD with honors from the George Washington University, and an MPH from the Johns Hopkins Bloomberg School of Public Health.

**David Jernigan, PhD**

David Jernigan, PhD, directs the Center on Alcohol Marketing and Youth (CAMY) and is an Associate Professor in the Department of Health, Behavior and Society at the Johns Hopkins Bloomberg School of Public Health, where he teaches courses on media advocacy, alcohol policy, and campaigning and organizing for public health. He is also co-director of the Maryland Collaborative to Reduce College Drinking and Related Problems, a statewide effort involving 14 institutions of higher education committed to reducing alcohol-related problems on campus and in the surrounding communities. Dr. Jernigan serves on the boards of Behavioral Health System Baltimore and the Global Alcohol Policy

Alliance, and on advisory boards for Cancer Research UK and the UK Center for Tobacco and Alcohol Studies. He has written more than 90 peer-reviewed journal articles, co-authored three books and monographs, and contributed chapters to six books on alcohol issues. He has served as an advisor to the World Bank and the World Health Organization (WHO) and was the principal author of WHO's first Global Status Report on Alcohol and Global Status Report on Alcohol and Youth, and co-author of *Alcohol in the Developing World: A Public Health Perspective* and *Media Advocacy and Public Health: Power for Prevention*. He has also trained thousands of students and public health advocates in media advocacy, the strategic use of the mass media to influence public health policy.

### **Holly C. Wilcox, PhD**

Holly C. Wilcox, Ph.D is an Associate Professor in the Johns Hopkins School of Medicine Department of Psychiatry and the Bloomberg School of Public Health Department of Mental Health. Dr. Wilcox has spent the past 25 years actively engaged in suicide prevention in schools, universities, emergency departments, and with the United States Marine Corps. Dr. Wilcox's most significant contributions have been in three areas: 1) large population-based, prospective cohort studies of youth suicidal behaviors; 2) the evaluation of impact of community-based universal prevention programs targeting youth suicidal behaviors; 3) the identification of biomarkers to inform suicide prevention. Dr. Wilcox led a national project to identify research needs for data linkage and analyses of linked data to serve as the foundation for a National Institutes of Health Pathway to Prevention workshop on suicide prevention. She is the co-chair of the Suicide Prevention Task Group of the National Network of Depression Centers, a non-profit 501(c)(3) network of 23 leading academic medical [centers](#). She has offered since 2005 a course at Johns Hopkins entitled ***Suicide as a Public Health Problem***.

### **Sara B. Johnson, PhD, MPH**

Sara Johnson is Associate Professor of Pediatrics at the Johns Hopkins School of Medicine, with a joint appointment in the Johns Hopkins Bloomberg School of Public Health's Department of Population, Family, and Reproductive Health. She also serves the Director of the Rales Center for the Integration of Health and Education, which is focused on reducing health and educational disparities in children and adolescents using school-based health care and wellness programs. Her research is broadly focused in two areas: 1) how early adversity such as poverty and trauma impacts brain, cognitive, and neuroendocrine system development from the prenatal period to adolescence; and 2) translating developmental science to inform evidence-based health and social policies.

### **Sheldon Greenberg, PhD**

Sheldon Greenberg, Ph.D., is Professor of Management in School of Education, Division of Public Safety Leadership. He served as Associate Dean for more than a decade, during which time he led the Police Executive Leadership Program and established University partnerships with the U.S. Secret Service and U.S. Immigration and Customs Enforcement (ICE). His primary research interests are police patrol, the relationship between police and public health, police organizational structure, highway safety, campus and school safety, the role of the police in community development, and community organizing. Prior to

joining Johns Hopkins, Dr. Greenberg served as Associate Director of the Police Executive Research Forum, the nation's largest law enforcement think tank and center for research. He began his career with the Howard County, MD, Police Department, where he served as a patrol officer, supervisor, and director of the police academy, director of research and planning, and commander of the administrative services bureau. He worked with the U.S. Marshals Service, U.S. Border Patrol, Department of Justice, and Department of State, as well as with police agencies in Cyprus, Jordan, Kenya, Panama, Hungary, Pakistan, and the Czech Republic. Dr. Greenberg served on national commissions and task forces on violence in schools, race-based profiling, and police response to people who have mental illness, police recruiting, highway safety, military deployment, and homeland defense. He serves as a member of the Federal Law Enforcement Training Accreditation Board.

#### **Emma E. McGinty, PhD**

Dr. McGinty is an Assistant Professor in the Department of Health Policy and Management at JHSPH, and a core faculty member of both the Center for Gun Policy and Research and the Center for Mental Health and Addiction Policy Research. Her research focuses on how public policies affect mental health, substance use, and gun violence. Dr. McGinty's recent research examined the effects of news media coverage of mass shootings by persons with mental illness on Americans' support for gun policies and attitudes toward individuals with serious mental illnesses. At the Center for Gun Policy and Research, Dr. McGinty uses public opinion surveys and message framing experiments to assess public support for gun violence prevention policies and collaborates on studies of the effects of youth-focused firearm restrictions and policies designed to prevent the diversion of guns to criminals. She received her PhD in Health Policy and Management in 2013 from the JHSPH where she was a Sommer Scholar and received an MS in Health and Behavior Studies from Columbia University in 2006.

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# EXHIBIT 6

Date of Hearing: August 13, 2013

Counsel: Shaun Naidu

ASSEMBLY COMMITTEE ON PUBLIC SAFETY

Tom Ammiano, Chair

SB 683 (Block) – As Amended: August 7, 2013

SUMMARY: Extends the safety certificate requirement for handguns to all firearms and requires the performance of a safe handling demonstration to receive a long gun. Specifically, this bill:

- 1) Starting January 1, 2015, extends the safety certificate requirement for handguns to all firearms and makes conforming changes.
- 2) Requires long-gun recipients, except as specified, to perform a safe handling demonstration before receiving that firearm from a licensed firearm dealer. Requires the Department of Justice (DOJ) to adopt regulations by January 1, 2015 establishing a long-gun safe-handling demonstration that includes, at a minimum, loading and unloading the long gun.
- 3) Exempts individuals with valid current-season hunting licenses, or valid hunting licenses from the hunting season immediately preceding the calendar year, from the firearm safety certificate requirement when acquiring a firearm other than handguns. This exemption is in addition to the current list of exemptions to the handgun safety certificate requirements.
- 4) Exempts individuals with unexpired handgun safety certificates from the firearm safety certificate requirement when acquiring only handguns.

EXISTING LAW:

- 1) Prohibits a dealer, except as specified, from delivering a handgun unless the person receiving the handgun presents to the dealer a valid handgun safety certificate. (Penal Code Section 26840.)
- 2) Punishes as a misdemeanor any person who purchases or receives any handgun, except as specified, without a valid handgun safety certificate or any person who sells, delivers, loans, or transfers any handgun, except as specified, to a person who does not have a valid handgun safety certificate. (Penal Code Section 31615.)
- 3) Requires the safety certificate applicant to complete and pass a written test prescribed by DOJ and administered by a DOJ-certified instructor. The test must cover, but is not limited to, the following:
  - a) The laws applicable to carrying and handling firearms, particularly handguns;
  - b) The responsibilities of ownership of firearms, particularly handguns;



- c) Current law as it relates to the sale and transfer of firearms laws;
  - d) Current law as it relates to the permissible use of lethal force;
  - e) What constitutes safe firearm storage;
  - f) Risks associated with bringing handguns into the home; and,
  - g) Prevention strategies to address issues associated with bringing firearms into the home. (Penal Code Section 31640.)
- 4) Authorizes a certified instructor who administers the handgun safety test to charge a fee of \$25, \$15 of which is to be paid to DOJ to cover DOJ's cost in carrying out and enforcing provisions relating to the handgun safety certificate and other specified provisions of law. (Penal Code Section 31650.)
- 5) Provides that DOJ shall develop handgun safety certificates, which expire 5 years after the date of issue, to be issued by DOJ-certified instructors to those persons who have complied with specified requirements. A handgun safety certificate shall include, but not be limited to, the following information:
- a) A unique handgun safety certificate identification number;
  - b) The holder's full name;
  - c) The holder's date of birth;
  - d) The holder's driver's license or identification number;
  - e) The holder's signature;
  - f) The signature of the issuing instructor; and,
  - g) The date of issuance. (Penal Code Section 31655.)
- 6) Exempts the following persons from the handgun safety certificate requirement:
- a) Any active or honorably-retired peace officer, as defined;
  - b) Any active or honorably-retired deferral officer or law enforcement agent;
  - c) Any reserve peace officer, as defined;
  - d) Any person who has successfully completed the specified peace officer training course;
  - e) A licensed firearms dealer, as specified;
  - f) A federally-licensed collector, as specified;

- g) A person to whom a firearm is being returned, where the person receiving the firearm is the owner of the firearm;
- h) A family member of a peace officer killed in the line who is obtaining the firearm of the slain officer;
- i) Any individual who has a valid concealed weapons permit, who is authorized to carry a loaded firearm, or who is the holder of a special weapons permit, as specified;
- j) An active or honorably-retired member of the United States Armed Forces, the National Guard, the Air National Guard, or the other active reserve components of the United States. (Penal Code Section 31700(a).)

FISCAL EFFECT: Unknown

COMMENTS:

- 1) Author's Statement: According to the author, "SB 683 is about education and preventing unintended injuries. Currently anyone age 18 or older can buy a long gun without having to show that he or she understands how to safely use and properly store it in the home. Long guns can be just as dangerous as hand guns. And long gun laws are just as complicated as hand gun laws. So it makes sense to establish similar requirements to buy a long gun as those required to purchase a hand gun.

"The purpose of the current Handgun Safety Certificate is to ensure that persons who buy a handgun have a basic familiarity with the firearm and are aware of the laws that govern gun ownership. This bill expands this program by establishing the Firearm Safety Certificate which seeks to generate more responsible, law-abiding gun owners by requiring every purchaser to take a written objective test that covers California laws applicable to the handling of both hand guns and long guns, the responsibilities of firearm ownership, the private transfer of firearms, and safe firearm storage."

- 2) Safety Certificate Background: Beginning in 1993, possession of a handgun safety certificate was required to transfer firearms. The Department of Justice was required to create the requisite process to obtain a handgun safety certificate. Exemptions were provided for specified classes of persons who did not need to either successfully take the course or challenge the course with a specified exam.

Senate Bill 52 (Scott), Chapter 942, Statutes of 2001, repealed the basic firearms safety certificate scheme and replaced it with the more stringent handgun safety certificate scheme. SB 52 provided that, effective January 1, 2003, no person may purchase, transfer, receive, or sell a handgun without a Handgun Safety Certificate (HSC).

This bill would extend what currently is a requirement for handgun buyers to learn basic safety and laws regarding handguns to instead include this requirement to buyers of all firearms. The subjects covered would be:

- a) The laws applicable to carrying and handling firearms;

- b) The responsibilities of ownership of firearms;
  - c) Current law as it relates to the sale and transfer of firearms;
  - d) Current law as it relates to the permissible use of lethal force;
  - e) What constitutes safe firearm storage;
  - f) Risks associated with bringing a firearm into the home; and,
  - g) Prevention strategies to address issues associated with bringing firearms into the home.
- 3) Hunting License v. Firearm Safety Certificate: California requires any person hunting, pursuing, catching, capturing, killing, or attempting any of these actions on, birds or mammals to have a hunting license issued by this state. (Fish and Game Code (FGC) Sections 86 and 1054.2.) In order to obtain a California hunting license, the state "requires all first time resident hunters, regardless of age, to complete hunter education training or pass a comprehensive equivalency test before purchasing a hunting license." (California Department of Fish and Wildlife, *California Hunter Education Program* <<http://www.dfg.ca.gov/huntered/>> [as of Aug. 7, 2013]; FGC Sections 1053.5 and 3050.) Consequently, "[e]ach year approximately 30,000 students complete the state's ten-hour minimum hunter education course." (California Department of Fish and Wildlife, *California Hunter Education Program*, supra.) A hunting license generally is valid for one year from July 1 to June 30. (FGC Section 3037.) Additionally, California allows the issuance of a lifetime hunting license for state residents of any age. (FGC Section 3031.2.)

Topics covered by the hunting education course generally are Introduction to Hunter Education, Hunting Safety, Hunter Responsibility, Outdoor Safety, Wildlife Conservation, and Hunting Opportunities. (See, e.g., International Hunter Education Association, *Introduction to Hunter Education* <<http://homestudy.ihea.com/>> [as of Aug. 7, 2013].) The amount of firearm safety information included in the hunting education course is more extensive than that in the safety certificate education component prompting the exemption in this bill from the safety certificate requirement for those in possession of a hunting license. An argument, however, can be made that while the hunting education requirement is more intensive and extensive, it does not cover all aspects included by the safety certificate education component (such as the applicable laws regarding the sale and transfer of firearms and persons ineligible to possess firearms) which would be useful to all firearm owners.

- 4) Loaning of Long Guns: Under existing law, there is an exception for a minor possessing a handgun safety certificate when a handgun is temporarily loaned for the purpose of the minor engaging in lawful, recreational sport (such as competitive shooting) or other specified activities. (Penal Code Section 31810.) As argued in its opposition letter, the California Waterfowl Association notes that this bill "is impractical in cases where firearms need to be temporarily loaned to others, particularly youth, for hunting or other recreational shooting purposes while participants are in the field or at a shooting range. In such cases, it would not likely be possible for someone to obtain a safety certificate in a timely manner." As this bill does not create a loan-to-minors exception to the firearm safety certificate, the author may wish to address the inconsistency that this bill will create between long guns and handguns.

- 5) Argument in Support: According to the Law Center to Prevent Gun Violence, "SB 683 would require *every* firearm purchaser to have a valid Firearm Safety Certificate before buying a weapon, regardless of whether the firearm to be acquired is a handgun or a long gun. This expansion reflects the prominent role that long guns (rifles and shotguns) play in our gun violence epidemic. For example, of the 26,682 crime guns entered into the state's Automated Firearm System (AFS) database in 2009, 11,500 were long guns. Moreover, requiring long gun owners to obtain a Firearm Safety Certificate will help ensure that all gun owners know how to handle their weapons safely and understand their responsibilities under California law.

"Expanding the certificate requirement to apply to all firearm buyers is a reasonable method of making sure that gun owners are informed about basic principles of gun safety and California law while imposing only a minimal burden upon them."

- 6) Argument in Opposition: According to the California Association of Federal Firearms Licensees, "This measure would make the qualification test for a '*firearm* safety certificate' unnecessarily difficult as it will require detailed knowledge of the many firearm types that a purchaser doesn't – and may never – own.

"Handgun purchasers seeking to exercise Second Amendment rights acknowledged by the U.S. Supreme Court in *D.C., et al. v. Heller*, 128 S.Ct. 2783 (2008), would no longer just need to know the details of handguns. Under SB 683, they would also need to learn, know, and pass a test on the intricacies of firearm categories like rifles, shotguns, other long guns, and firearms Federally [sic] classified as Any Other Weapons, each having myriad action types such as lever, pump, semi-automatic, single-shot, and others – this despite the fact that they may never chose to own any of them."

7) Prior Legislation:

- a) AB 35 (Shelley), Chapter 940, Statutes of 2001, required any person who wants to purchase or otherwise transfer a handgun, except as specified, to obtain a handgun safety certificate. Enactment of AB 35 was contingent upon the enactment of SB 52, with the bill that was chaptered last establishing the handgun safety certificate scheme.
- b) SB 52 (Scott), Chapter 942, Statutes of 2001, required any person who wants to purchase or otherwise transfer a handgun, except as specified, to obtain a handgun safety certificate. Enactment of SB 52 was contingent upon the enactment of AB 35, with the bill that was chaptered last establishing the handgun safety certificate scheme.

REGISTERED SUPPORT / OPPOSITION:

Support

Courage Campaign (Sponsor)  
 American Academy of Pediatrics, California  
 American Association of University Women, Santa Barbara-Goleta Valley Branch  
 Anti-Defamation League  
 Auburn Area Democratic Club  
 Bend the Arc: Jewish Partnership for Justice

Brady Campaign to Prevent Gun Violence, California Chapter  
Brady Campaign to Prevent Gun Violence, Orange County Chapter  
California Church IMPACT  
California Medical Association  
City of Santa Monica  
Clergy & Laity United for Economic Justice  
Coalition Against Gun Violence, A Santa Barbara County Coalition  
Coalition to Stop Gun Violence  
CREDO Action  
Diablo Valley Democratic Club  
Doctors for America  
Jewish Public Affairs Committee of California  
Laguna Woods Democratic Club  
Law Center to Prevent Gun Violence  
League of Women Voters of California  
Los Angeles Mayor Antonio Villaraigosa (former)  
Nevada County Democratic Women's Club  
PICO California  
Santa Barbara Rape Crisis Center  
Tri-Cities Democratic Forum  
Women Against Gun Violence  
Women For: Orange County  
Violence Prevention Coalition of Greater Los Angeles  
Violence Prevention Coalition of Orange County  
Youth ALIVE!

Eleven private individuals

Opposition

California Association of Federal Firearms Licensees  
California Rifle and Pistol Association, Inc.  
California Waterfowl Association

Analysis Prepared by: Shaun Naidu / PUB. S. / (916) 319-3744

# EXHIBIT 7





**XAVIER BECERRA**

*Attorney General*

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# Frequently Asked Questions

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## Firearm Safety Certificate Program

### Links to Topics below

[General FAQs](#)

[Certified Instructor FAQs](#)

[Firearms Dealers' FAQs](#)

[Certified Instructor Training \(Comparable Entity\) FAQs](#)

### General FAQs

1. What are the Firearm Safety Certificate requirements?
2. What are the exemptions from the Firearm Safety Certificate requirement?

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3. If I already have a Handgun Safety Certificate, do I still need a Firearm Safety Certificate?
4. Do I need a Firearm Safety Certificate if I begin a long gun transaction prior to January 1, 2015, but don't take possession of the long gun until after December 31, 2014?
5. How do I get a Firearm Safety Certificate?
6. How much does the Firearm Safety Certificate cost?
7. Are there any minimum qualifications/requirements for a person who wants to take the Firearm Safety Certificate Test?
8. How can I prepare for the Firearm Safety Certificate Test?
9. How can I get a Firearm Safety Certificate Study Guide?
10. If I don't pass the test, can I take it again?
11. How long is a Firearm Safety Certificate valid?
12. If I lose my Firearm Safety Certificate can I get a replacement?
13. Do I need a Firearm Safety Certificate if I am receiving a firearm from my mother or father?
14. Do I have to carry my Firearm Safety Certificate with me whenever I possess or transport my firearm?
15. Is a Firearm Safety Certificate required when a firearm is being loaned?
16. I am moving into California and intend to bring my firearm with me. Do I need a Firearm Safety Certificate?
17. What is the "safe handling demonstration" requirement?
18. When must the safe handling demonstration take place?
19. What are the exemptions to the safe handling demonstration requirement?

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## 1. What are the Firearm Safety Certificate requirements?

- Prior to purchasing or acquiring a firearm, unless exempted, you must have a valid Firearm Safety Certificate (FSC). You must present your FSC to the firearms dealer at the time you begin a transaction to purchase or acquire a firearm.

**2. What are the exemptions from the Firearm Safety Certificate requirement?**

- There are several FSC requirement exemptions. In addition to the previous Handgun Safety Certificate (HSC) exemptions, a person issued a valid hunting license is exempt from the FSC requirement for long guns only. (Pen. Code, § 31700, subd. (c).)

**3. If I already have a Handgun Safety Certificate, do I still need a Firearm Safety Certificate?**

- A valid HSC can still be used to purchase/acquire handguns until it expires. For long gun purchases/acquisitions made on or after January 1, 2015, an FSC is required. An FSC can be used to purchase/acquire both handgun and long guns.

**4. Do I need a Firearm Safety Certificate if I begin a long gun transaction prior to January 1, 2015, but don't take possession of the long gun until after December 31, 2014?**

- Yes. Effective January 1, 2015, an FSC must be obtained prior to taking possession of a long gun, regardless of when the DROS transaction was initiated.

**5. How do I get a Firearm Safety Certificate?**

- To obtain an FSC you must score at least 75% (23 correct answers out of 30 questions) on the FSC Test covering firearm safety and basic firearms laws. The true/false and multiple choice test is administered by Instructors certified by the Department of Justice who are generally located at firearms dealerships.

**6. How much does the Firearm Safety Certificate cost?**

- The fee for taking the FSC Test and obtaining an FSC is twenty-five dollars (\$25). The \$25 fee entitles you to take the test twice (from the same DOJ Certified Instructor) if necessary.

**7. Are there any minimum qualifications/requirements for a person who wants to take the Firearm Safety Certificate Test?**

- Yes. The FSC applicant must be at least 18 years of age and must present clear evidence of identity and age by presenting a California Driver License or California Department of Motor Vehicles Identification Card.

**8. How can I prepare for the Firearm Safety Certificate Test?**

- The best way to prepare for the FSC Test is to read the FSC Study Guide. The study guide contains all the information necessary to pass the test. The FSC webinar is also a useful study tool.

**9. How can I get a Firearm Safety Certificate Study Guide?**

- The FSC Study Guide is available to view or download from this website at <http://www.oag.ca.gov/sites/all/files/agweb/pdfs/firearms/forms/hscsg.pdf>.

**10. If I don't pass the test, can I take it again?**

- Yes. The \$25 fee entitles you to take the test twice if necessary. If you fail the test the first time, you may retake another version of the test from the **same** DOJ Certified Instructor without any additional fee after 24 hours have elapsed. The DOJ Certified Instructor is required to offer or make available to you the FSC Study Guide or refer you to view the webinar.

**11. How long is a Firearm Safety Certificate valid?**

- An FSC is valid for five years from the date of issuance.

**12. If I lose my Firearm Safety Certificate can I get a replacement?**

- Yes. A replacement FSC is available only through the DOJ Certified Instructor who issued your FSC. The FSC replacement cost is \$5. The replacement FSC will reflect the same expiration date as your original FSC.

13. **Do I need a Firearm Safety Certificate if I am receiving a firearm from my mother or father?**

- Yes. Prior to taking possession of the firearm, you must have a valid FSC. Pursuant to Penal Code section 27875, subdivision (c), within 30 days of the transfer, you must also report the acquisition to DOJ on Form BOF 4544, pdf.

14. **Do I have to carry my Firearm Safety Certificate with me whenever I possess or transport my firearm?**

- No. Mere possession/ownership of a firearm does not require an FSC. However, you do have to present your FSC to the firearms dealer at the time you begin a transaction to purchase/acquire a firearm.

15. **Is a Firearm Safety Certificate required when a firearm is being loaned?**

- It depends on the specific circumstances. Generally, a person being loaned a firearm must have a current FSC. However, an FSC is not required if the loan does not exceed three days in duration **and** the person loaning the firearm is at all times within the presence of the person being loaned the firearm.

16. **I am moving into California and intend to bring my firearm with me. Do I need a Firearm Safety Certificate?**

- No, you do not need an FSC to move into California with your firearm. However, there are important rules related to personal firearm importation that must be followed, and which are explained on this website. (Pen. Code, § 17000.)

17. **What is the "safe handling demonstration" requirement?**

- The safe handling demonstration is a statutory requirement that firearm purchasers/recipients execute a series of specific steps related to safely loading and unloading the firearm. The safe handling demonstration must be performed under the supervision of a DOJ Certified Instructor, and the

purchaser must sign an affidavit attesting to the completion of the safe handling demonstration. The performance steps of a successful safe handling demonstration can be found beginning on page 45 of the Firearm Safety Certificate Study Guide, pdf .

**18. When must the safe handling demonstration take place?**

- The safe handling demonstration must be performed on or after the date the Dealer Record of Sale (DROS) is submitted to DOJ, and prior to the delivery of the firearm. You may find it helpful to perform the safe handling demonstration prior to actually initiating the DROS to ensure that you will be able to take possession of the make and model you select.

**19. What are the exemptions to the safe handling demonstration requirement?**

- The exemptions to the safe handling demonstration are the same as the exemptions from the FSC requirement. If a firearm purchaser/recipient has a valid exemption from the FSC requirement, he or she is also exempt from the safe handling demonstration requirement. A copy of the proof of exemption documentation must be retained with the original DROS, but a Safe Handling Demonstration Affidavit would not be required.

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## Certified Instructor FAQs

1. What is the DOJ Certified Instructor's role in the Firearm Safety Certificate Program?
2. What are the qualifications for becoming a DOJ Certified Instructor?
3. Where can I obtain the firearms safety instruction training that will qualify me to obtain DOJ Certified Instructor certification?



# EXHIBIT 8



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## Upcoming Events

### Online Course and Follow-Up Class

#### Overview

This is a 2 component course. Students must complete an Online Course prior to attending a Follow-Up Class. The Follow-Up is a review only of what the student has learned online.

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#### Find events near you

Use my current location

— OR —

Use a ZIP Code

#### DECEMBER 2019

DEC  
**18**  
WED

#### **Online Course and Follow-Up Class (/events/view/137502)**

**Registration Open** 6 of 30 seats remaining

##### LOCATION & SCHEDULE

**Santa Maria Gun Club** Santa Maria, CA 93454

Wednesday, December 18, 2019 6:00pm - 10:00pm

DEC  
**19**  
THU

#### **Online Course and Follow-Up Class (/events/view/139982)**

**Full Event with Wait List** 0 of 34 seats remaining

##### LOCATION & SCHEDULE

**American Legion Post 555** Midway City, CA 92655

Thursday, December 19, 2019 4:30pm - 9:30pm

DEC

#### **Online Course and Follow-Up Class (/events/view/152792)**

**Registration Open** 15 of 20 seats remaining

**20**  
FRI

**LOCATION & SCHEDULE**  
**Shasta Lake Firearms Instruction** Redding, CA 96003  
Friday, December 20, 2019 4:00pm - 8:00pm

DEC  
**21**  
SAT

**Online Course and Follow-Up Class (/events/view/133758)**

**Registration Closed** 0 of 22 seats remaining

**LOCATION & SCHEDULE**  
**Redondo Rod & Gun Club** Redondo Beach, CA 90278  
Saturday, December 21, 2019 8:00am - 12:00pm

DEC  
**21**  
SAT

**Online Course and Follow-Up Class (/events/view/147384)**

**Full Event with Wait List** 0 of 30 seats remaining

**LOCATION & SCHEDULE**  
**Valley Of The Moon Gun Club\*** Sonoma, CA 95476  
Saturday, December 21, 2019 8:30am - 12:30pm

DEC  
**21**  
SAT

**Online Course and Follow-Up Class (/events/view/133863)**

**Registration Open** 6 of 20 seats remaining

**LOCATION & SCHEDULE**  
**Kens Hunters ed** Hesperia, CA 92345  
Saturday, December 21, 2019 9:00am - 2:00pm

DEC  
**21**  
SAT

**Online Course and Follow-Up Class (/events/view/152594)**

**Full Event with Wait List** 0 of 20 seats remaining

**LOCATION & SCHEDULE**  
**KW DEFENSE** STOCKTON, CA 95205  
Saturday, December 21, 2019 10:00am - 2:00pm

DEC  
**22**  
SUN

**Online Course and Follow-Up Class (/events/view/151080)**

**Full Event with Wait List** 0 of 30 seats remaining

**LOCATION & SCHEDULE**  
**1faithsimon2** Murrieta, CA 92563  
Sunday, December 22, 2019 8:00am - 12:00pm

DEC  
**22**  
SUN

**Online Course and Follow-Up Class (/events/view/143295)**

**Full Event with Wait List** 0 of 45 seats remaining

**LOCATION & SCHEDULE**  
**Bass Pro Shops Manteca** Manteca, CA 95337  
Sunday, December 22, 2019 9:00am - 2:00pm

DEC

**Online Course and Follow-Up Class (/events/view/152364)**

28

SAT

Registration Open 10 of 25 seats remaining

LOCATION & SCHEDULE

**Las Flores Ranch House Barn** Camp Pendleton, CA 92055

Saturday, December 28, 2019 8:00am - 1:00pm

← First (/programs/california/161?\_=1576283408535)

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RSS (<https://register-ed.com/programs/california/161-online-course-and-follow-up-class/page:1/limit:100.rss>)

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Next → (/programs/california/161/page:3?\_=1576283408535)

Last → (/programs/california/161/page:15?\_=1576283408535)



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#### Find events near you

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#### DECEMBER 2019

DEC  
**29**  
SUN

#### **Online Course and Follow-Up Class (/events/view/153170)**

Full Event with Wait List 0 of 15 seats remaining

##### LOCATION & SCHEDULE

**Wing & Barrel Ranch** Sonoma, CA 95476

Sunday, December 29, 2019 9:00am - 1:00pm

#### JANUARY 2020

JAN  
**1**  
WED

#### **Online Course and Follow-Up Class (/events/view/137735)**

Special Registration

##### LOCATION & SCHEDULE

**Department of Fish & Wildlife Office, Monterey** Monterey, CA 93940

Wednesday, January 1, 2020 10:00am - 3:00pm

JAN  
**4**  
SAT**Online Course and Follow-Up Class (/events/view/151967)****Registration Closed** 0 of 35 seats remaining**LOCATION & SCHEDULE****Department of Fish & Wildlife Office, Los Alamitos** Los Alamitos, CA 90720

Saturday, January 4, 2020 8:00am - 2:00pm

JAN  
**4**  
SAT**Online Course and Follow-Up Class (/events/view/153030)****Registration Open** 20 of 20 seats remaining**LOCATION & SCHEDULE****Kens Hunters ed** Hesperia, CA 92345

Saturday, January 4, 2020 9:00am - 1:00pm

JAN  
**8**  
WED**Online Course and Follow-Up Class (/events/view/151267)****Full Event with Wait List** 0 of 30 seats remaining**LOCATION & SCHEDULE****Sportsmans Warehouse Rocklin** Rocklin, CA 95765

Wednesday, January 8, 2020 4:00pm - 8:00pm

JAN  
**9**  
THU**Online Course and Follow-Up Class (/events/view/151995)****Registration Open** 10 of 20 seats remaining**LOCATION & SCHEDULE****KW DEFENSE** STOCKTON, CA 95205

Thursday, January 9, 2020 3:00pm - 7:00pm

JAN  
**9**  
THU**Online Course and Follow-Up Class (/events/view/151269)****Full Event with Wait List** 0 of 30 seats remaining**LOCATION & SCHEDULE****Sportsmans Warehouse Rancho Cordova** Rancho Cordova, CA 95670

Thursday, January 9, 2020 4:00pm - 8:00pm

JAN  
**9**  
THU**Online Course and Follow-Up Class (/events/view/152949)****Registration Open** 35 of 40 seats remaining**LOCATION & SCHEDULE****Stage Stop Gun Shop** Atwater, CA 95301

Thursday, January 9, 2020 6:00pm - 10:00pm

JAN  
**11**  
SAT**Online Course and Follow-Up Class (/events/view/150546)****Full Event with Wait List** 0 of 32 seats remaining**LOCATION & SCHEDULE****CRPA** Fullerton, CA 92835

Saturday, January 11, 2020 8:00am - 12:00pm

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JAN  
**11**  
SAT

## **Online Course and Follow-Up Class (/events/view/153206)**

**Registration Open** 8 of 20 seats remaining

### **LOCATION & SCHEDULE**

**CDFW Office** San Diego, CA 92123

Saturday, January 11, 2020 8:00am - 12:00pm

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4 (/programs/california/161/page:4?\_=1576283447108)

Next → (/programs/california/161/page:4?\_=1576283447108)

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#### Find events near you

Use my current location

— OR —

Use a ZIP Code

#### DECEMBER 2019

DEC  
**14**  
SAT

#### **Online Course and Follow-Up Class (/events/view/150568)**

Full Event with Wait List 0 of 25 seats remaining

##### LOCATION & SCHEDULE

**The Hunter Instructor** Lake Elsinore, CA 92532

Saturday, December 14, 2019 8:00am - 12:00pm

DEC  
**14**  
SAT

#### **Online Course and Follow-Up Class (/events/view/148280)**

Registration Closed 0 of 30 seats remaining

##### LOCATION & SCHEDULE

**Folsom Sports Complex** Folsom, CA 95630

Saturday, December 14, 2019 8:00am - 2:00pm

DEC

#### **Online Course and Follow-Up Class (/events/view/152500)**

Full Event with Wait List 0 of 50 seats remaining

Ex. 8

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14

SAT

**LOCATION & SCHEDULE**

**Tabernacle Baptist Church** Roseville, CA 95678

Saturday, December 14, 2019 8:00am - 12:00pm

DEC

14

SAT

**Online Course and Follow-Up Class (/events/view/153168)**

**Registration Closed** 0 of 20 seats remaining

**LOCATION & SCHEDULE**

**Rowland Sporting Goods** Rowland Heights, CA 91748

Saturday, December 14, 2019 9:00am - 1:00pm

DEC

15

SUN

**Online Course and Follow-Up Class (/events/view/151934)**

**Registration Closed** 0 of 20 seats remaining

**LOCATION & SCHEDULE**

**Alta Mesa Gun Club** Wilton, CA 95693

Sunday, December 15, 2019 9:00am - 1:00pm

DEC

15

SUN

**Online Course and Follow-Up Class (/events/view/143294)**

**Full Event with Wait List** 0 of 45 seats remaining

**LOCATION & SCHEDULE**

**Bass Pro Shops Manteca** Manteca, CA 95337

Sunday, December 15, 2019 9:00am - 2:00pm

DEC

15

SUN

**Online Course and Follow-Up Class (/events/view/146397)**

**Registration Open** 6 of 35 seats remaining

**LOCATION & SCHEDULE**

**Anderson High School** Anderson, CA 96007

Sunday, December 15, 2019 10:00am - 2:00pm

DEC

15

SUN

**Online Course and Follow-Up Class (/events/view/149824)**

**Registration Open** 4 of 14 seats remaining

**LOCATION & SCHEDULE**

**Creston Cal Fire Station** Creston, CA 93432

Sunday, December 15, 2019 3:00pm - 7:00pm

DEC

17

TUE

**Online Course and Follow-Up Class (/events/view/153286)**

**Registration Open** 10 of 10 seats remaining

**LOCATION & SCHEDULE**

**Arcata Fish and Wildlife Office** Arcata, CA 95521

Tuesday, December 17, 2019 6:00pm - 10:00pm

DEC

**Online Course and Follow-Up Class (/events/view/152186)**

17

TUE

Registration Closed 0 of 15 seats remaining

**LOCATION & SCHEDULE**

**Taraval Police Station** San Francisco, CA 94116

Tuesday, December 17, 2019 7:00pm - 9:30pm

Plus, 1 additional day\_ (/events/view/152186).

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3 (/programs/california/161/page:3)

Next → (/programs/california/161/page:2)

Last → (/programs/california/161/page:15)

RSS (https://register-ed.com/programs/california/161-online-course-and-follow-up-class/page:1/limit:100.rss)

# EXHIBIT 9



MANAGED AND APPROVED BY:

## California Department of Fish & Wildlife

<https://www.wildlife.ca.gov/> (<https://www.wildlife.ca.gov/>)

# Upcoming Events

## Online Course and Follow-Up Class

### Overview

This is a 2 component course. Students must complete an Online Course prior to attending a Follow-Up Class. The Follow-Up is a review only of what the student has learned online.

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## Find events near you

ZIP code

92101

Miles away

within 75 miles

or remove location

### DECEMBER 2019

DEC  
**14**  
SAT

#### **Online Course and Follow-Up Class (/events/view/150568)**

Full Event with Wait List 0 of 25 seats remaining

##### LOCATION & SCHEDULE

**The Hunter Instructor** Lake Elsinore, CA 92532

Saturday, December 14, 2019 8:00am - 12:00pm

##### DISTANCE

65 mi

DEC  
**22**

#### **Online Course and Follow-Up Class (/events/view/151080)**

Full Event with Wait List 0 of 30 seats remaining



SUN

**LOCATION & SCHEDULE**

**1faithsimon2** Murrieta, CA 92563

Sunday, December 22, 2019 8:00am - 12:00pm

**DISTANCE**

**58 mi**

DEC

**28**

SAT

**Online Course and Follow-Up Class (/events/view/152364)**

**Registration Open** 14 of 25 seats remaining

**LOCATION & SCHEDULE**

**Las Flores Ranch House Barn** Camp Pendleton, CA 92055

Saturday, December 28, 2019 8:00am - 1:00pm

**DISTANCE**

**43 mi**

**JANUARY 2020**

JAN

**11**

SAT

**Online Course and Follow-Up Class (/events/view/153206)**

**Registration Open** 14 of 20 seats remaining

**LOCATION & SCHEDULE**

**CDFW Office** San Diego, CA 92123

Saturday, January 11, 2020 8:00am - 12:00pm

**DISTANCE**

**7 mi**

JAN

**11**

SAT

**Online Course and Follow-Up Class (/events/view/150299)**

**Full Event with Wait List** 0 of 30 seats remaining

**LOCATION & SCHEDULE**

**Escondido Fish and Game range** Escondido, CA 92027

Saturday, January 11, 2020 12:00pm - 4:00pm

**DISTANCE**

**33 mi**

JAN

**12**

SUN

**Online Course and Follow-Up Class (/events/view/151081)**

**Registration Open** 19 of 25 seats remaining

**LOCATION & SCHEDULE**

**1faithsimon2** Murrieta, CA 92563

Sunday, January 12, 2020 8:00am - 12:00pm

**DISTANCE**

**58 mi**

JAN

**13**

**Online Course and Follow-Up Class (/events/view/149464)**

**Registration Open** 8 of 20 seats remaining

Ex. 9

**LOCATION & SCHEDULE**

**On Target Indoor Shooting Range LLC** Laguna Niguel, CA 92677

Monday, January 13, 2020 6:00pm - 10:00pm

**DISTANCE**

**65 mi**

**FEBRUARY 2020**

FEB

**8**

SAT

**Online Course and Follow-Up Class (/events/view/150312)**

**Registration Open** 7 of 30 seats remaining

**LOCATION & SCHEDULE**

**Escondido Fish and Game range** Escondido, CA 92027

Saturday, February 8, 2020 12:00pm - 4:00pm

**DISTANCE**

**33 mi**

FEB

**10**

MON

**Online Course and Follow-Up Class (/events/view/149465)**

**Registration Open** 19 of 20 seats remaining

**LOCATION & SCHEDULE**

**On Target Indoor Shooting Range LLC** Laguna Niguel, CA 92677

Monday, February 10, 2020 6:00pm - 10:00pm

**DISTANCE**

**65 mi**

**MARCH 2020**

MAR

**9**

MON

**Online Course and Follow-Up Class (/events/view/149466)**

**Registration Open** 20 of 20 seats remaining

**LOCATION & SCHEDULE**

**On Target Indoor Shooting Range LLC** Laguna Niguel, CA 92677

Monday, March 9, 2020 6:00pm - 10:00pm

**DISTANCE**

**65 mi**

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2 (/programs/california/161/page:2?zip=92101&distance=75&\_=1576031376138)

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RSS (https://www.register-ed.com/programs/california/161-online-course-and-follow-up-class/page:1/limit:100.rss?zip=92101&distance=75)  
Last → (/programs/california/161/page:2?zip=92101&distance=75&\_=1576031376138)



MANAGED AND APPROVED BY:

California Department of Fish & Wildlife

<https://www.wildlife.ca.gov/> (<https://www.wildlife.ca.gov/>)

## Upcoming Events

### Online Course and Follow-Up Class

#### Overview

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### Find events near you

ZIP code

92101

Miles away

within 75 miles

or remove location

#### APRIL 2020

APR  
**13**  
MON

### Online Course and Follow-Up Class (/events/view/149467)

Registration Open 20 of 20 seats remaining

#### LOCATION & SCHEDULE

**On Target Indoor Shooting Range LLC** Laguna Niguel, CA 92677

Monday, April 13, 2020 6:00pm - 10:00pm

#### DISTANCE

65 mi

#### MAY 2020

MAY  
**11**  
MON

**Online Course and Follow-Up Class (/events/view/149468)**

**Registration Open** 20 of 20 seats remaining

**LOCATION & SCHEDULE**

**On Target Indoor Shooting Range LLC** Laguna Niguel, CA 92677

Monday, May 11, 2020 6:00pm - 10:00pm

**DISTANCE**

**65 mi**

**JUNE 2020**

JUN  
**8**  
MON

**Online Course and Follow-Up Class (/events/view/149469)**

**Registration Open** 20 of 20 seats remaining

**LOCATION & SCHEDULE**

**On Target Indoor Shooting Range LLC** Laguna Niguel, CA 92677

Monday, June 8, 2020 6:00pm - 10:00pm

**DISTANCE**

**65 mi**

**JULY 2020**

JUL  
**13**  
MON

**Online Course and Follow-Up Class (/events/view/149470)**

**Registration Open** 20 of 20 seats remaining

**LOCATION & SCHEDULE**

**On Target Indoor Shooting Range LLC** Laguna Niguel, CA 92677

Monday, July 13, 2020 6:00pm - 10:00pm

**DISTANCE**

**65 mi**

**AUGUST 2020**

AUG  
**10**  
MON

**Online Course and Follow-Up Class (/events/view/149471)**

**Registration Open** 20 of 20 seats remaining

**LOCATION & SCHEDULE**

**On Target Indoor Shooting Range LLC** Laguna Niguel, CA 92677

Monday, August 10, 2020 6:00pm - 10:00pm

**DISTANCE**

**65 mi**

**SEPTEMBER 2020**

SEP

**Online Course and Follow-Up Class (/events/view/149472)**

7

MON

Registration Open 20 of 20 seats remaining

LOCATION & SCHEDULE

**On Target Indoor Shooting Range LLC** Laguna Niguel, CA 92677

Monday, September 7, 2020 6:00pm - 10:00pm

DISTANCE

65 mi

← First (/programs/california/161?zip=92101&distance=75&\_=1576031415331)

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RSS (https://www.register-ed.com/programs/california/161-online-course-and-follow-up-class/page:1/limit:100.rss?zip=92101&distance=75)  
1 (/programs/california/161?zip=92101&distance=75&\_=1576031415331)

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# EXHIBIT 10



# CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

## Hunting

Items Reported by License Year  
AS OF 10/31/2019

Licenses	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Resident Hunting (Annual)	251,572	246,701	248,262	251,046	248,473	238,655	238,495	233,531	229,320	193,771
Lifetime Hunting	4,987	4,676	4,858	4,942	5,203	5,277	5,585	5,845	6,042	5,814
Junior Hunting (Annual)	20,520	20,553	20,505	20,959	19,818	25,878	23,770	22,301	21,123	16,271
Lifetime Junior Hunting	691	649	739	769	855	1,107	1,144	1,180	854	1,090
Disabled Veteran Hunting	2,019	2,370	2,734	3,124	3,527	3,827	4,099	4,325	4,609	4,053
Recovering Service Member	0	0	4	7	12	7	7	6	3	2
Non-Resident Hunting (Annual)	3,711	3,915	3,965	3,736	3,707	3,720	3,768	3,923	3,893	2,763
Non-Resident 1-Day Hunting	565	171	144	236	253	246	224	279	244	45
Non-Resident 2-Day Hunting	3,164	3,231	3,007	3,022	2,911	3,033	2,907	3,271	3,188	795
<b>Sub Total - Hunting Licenses</b>	<b>287,229</b>	<b>282,266</b>	<b>284,218</b>	<b>287,841</b>	<b>284,759</b>	<b>281,750</b>	<b>279,999</b>	<b>274,661</b>	<b>269,276</b>	<b>224,604</b>
Resident First Deer Tag	139,283	140,633	139,895	143,697	143,126	143,047	142,022	142,021	139,763	137,622
Non-Resident First Deer Tag	978	975	974	942	962	997	1,078	1,122	1,157	1,227
Resident Second Deer Tag	40,600	38,933	38,639	40,172	38,649	40,490	41,498	42,312	39,791	40,711
Non-Resident Second Deer Tag	64	54	50	56	55	56	65	57	67	70
Lifetime Deer Tag	2,160	1,916	2,028	2,043	2,117	2,233	2,317	2,408	2,511	2,580
Duplicate/Exchange Deer Tag	566	215	240	191	222	238	153	165	141	154
<b>Sub Total - Deer Tags</b>	<b>183,651</b>	<b>182,726</b>	<b>181,826</b>	<b>187,101</b>	<b>185,131</b>	<b>187,061</b>	<b>187,133</b>	<b>188,085</b>	<b>183,430</b>	<b>182,364</b>
Resident Pronghorn Antelope Tag	231	240	240	198	197	252	270	241	245	227
Resident Pronghorn Antelope Tag (Junior)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	16
Non-Resident Pronghorn Antelope Tag	0	1	1	0	1	1	1	1	1	1
Resident Bighorn Sheep Tag	21	25	23	18	12	11	18	18	17	25
Non-Resident Bighorn Sheep Tag	1	2	3	4	2	1	0	0	1	3
Resident Elk Tag	415	421	439	409	352	381	313	322	348	334
Resident Elk Tag (Junior)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24
Non-Resident Elk Tag	7	5	3	4	5	3	2	4	5	3
<b>Sub Total - Antelope, Bighorn Sheep, Elk Tags</b>	<b>675</b>	<b>694</b>	<b>709</b>	<b>633</b>	<b>569</b>	<b>649</b>	<b>604</b>	<b>586</b>	<b>617</b>	<b>633</b>
Resident Antelope Tag Drawing Application	N/A	22,715	23,039	21,929	22,636	24,018	24,599	26,223	26,618	26,652
Non-Resident Antelope Tag Drawing Application	N/A	282	301	307	351	400	435	496	519	547
Resident Bighorn Sheep Tag Drawing Application	N/A	12,179	12,756	12,329	12,706	13,521	14,103	15,443	16,111	16,350
Non-Resident Bighorn Sheep Tag Drawing Application	N/A	668	682	688	725	776	795	850	898	919
Resident Elk Tag Drawing Application	N/A	31,602	32,194	31,369	32,493	34,938	35,570	38,449	39,011	38,795
Non-Resident Elk Tag Drawing Application	N/A	474	489	517	573	620	699	775	820	877
EAS Tag Return Processing Fee	11	3	24	7	24	6	8	42	16	13
EAS Drawing Application	61,034	See Above	See Above	See Above	See Above	See Above	See Above	See Above	See Above	See Above
<b>Sub Total - Antelope, Bighorn Sheep, Elk Draw</b>	<b>61,045</b>	<b>67,923</b>	<b>69,485</b>	<b>67,146</b>	<b>69,508</b>	<b>74,279</b>	<b>76,209</b>	<b>82,278</b>	<b>83,993</b>	<b>84,153</b>
Fundraising Deer Tag Random Drawing	N/A	15,516	18,054	17,984	17,720	22,359	23,575	24,362	22,295	22,249
Fundraising Bighorn Sheep Tag Random Drawing	N/A	N/A	16,488	12,585	0	0	10,451	12,306	11,924	9,299
Fundraising Antelope Tag Random Drawing	N/A	N/A	6,548	6,335	5,927	7,988	8,840	9,129	8,503	8,787
Fundraising Elk Tag Random Drawing	N/A	12,020	13,606	13,110	14,152	17,232	18,033	16,243	21,410	19,726





# CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

## Hunting

Items Reported by License Year  
AS OF 10/31/2019

Licenses	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<i>Sub Total - Fundraising Drawing</i>	0	27,536	54,786	50,014	37,799	47,579	60,899	62,040	64,132	60,061
Resident Bear Tags	24,576	24,954	24,625	23,328	26,481	27,483	27,172	27,752	27,809	25,666
Resident Bear Tags (Junior)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,167
Non-Resident Bear Tags	268	237	247	69	95	98	81	94	95	89
<i>Sub Total - Bear</i>	24,844	25,191	24,872	23,397	26,576	27,581	27,253	27,846	27,904	26,922
Resident Wild Pig Tag	48,125	49,461	50,956	51,986	49,076	44,082	42,942	41,433	39,549	23,708
Non-Resident Wild Pig Tag	1,218	1,016	1,197	1,192	1,085	1,051	1,041	866	902	291
Lifetime Wild Pig Tags	11,225	7,759	8,196	8,269	8,127	8,297	8,273	8,280	8,052	7,694
<i>Sub Total - Wild Pig Tags</i>	60,568	58,236	60,349	61,447	58,288	53,430	52,256	50,579	48,503	FALSE
Bobcat Hunting Tags (Book of 5) See note Below	3,684	4,593	12,461	12,632	12,538	11,650	11,323	11,988	12,067	8,706
Bobcat Shipping Tags	1,078	1,525	1,577	1,483	804	N/A	N/A	N/A	N/A	N/A
<i>Sub Total - Bobcat Tags</i>	4,762	6,118	14,038	14,115	13,342	11,650	11,323	11,988	12,067	8,706
Duck Validation	67,551	67,637	68,806	68,095	67,929	66,603	66,570	64,531	63,855	45,043
Collector Duck Stamp	59	419	261	681	464	434	337	327	348	13
Lifetime Duck Validation	2,625	2,237	2,198	2,240	2,320	2,406	2,484	2,580	2,603	2,495
Waterfowl Reservation Application	740,522	759,168	833,433	876,700	860,488	1,006,387	1,037,814	1,026,383	1,012,301	660,507
1-Day Type A Wildlife Area Permit	36,004	13,473	11,710	10,324	10,697	10,576	8,594	9,593	9,490	1,513
2-Day Type A Wildlife Area Pass	3,071	13,184	14,771	15,300	17,898	17,803	14,467	15,171	14,660	3,616
Type A Wildlife Area Season Pass	3,822	5,404	5,476	5,411	4,413	4,553	5,210	4,941	4,827	4,257
Type B Wildlife Area Season Pass	785	958	962	778	576	611	746	797	752	549
Upland Game Bird Validation	175,505	173,373	173,590	175,616	171,121	160,541	158,646	156,449	154,656	122,255
Collector Upland Game Bird Stamp	30	130	87	165	133	183	149	107	82	11
Lifetime Upland Game Bird Validation	2,649	2,278	2,404	2,491	2,589	2,627	2,788	2,890	2,938	2,805
Harvest Information Program Validation	22,467	174,251	184,441	183,293	165,209	174,169	148,831	160,290	156,546	121,149
<i>Sub Total - Game Bird Hunting</i>	1,055,090	1,212,512	1,298,139	1,341,094	1,303,837	1,446,893	1,446,636	1,444,059	1,423,058	964,213
<b>TOTAL HUNTING</b>	<b>1,677,864</b>	<b>1,863,202</b>	<b>1,988,422</b>	<b>2,032,788</b>	<b>1,979,809</b>	<b>2,130,872</b>	<b>2,142,312</b>	<b>2,142,122</b>	<b>2,112,980</b>	<b>1,551,656</b>

# EXHIBIT 11

MENU



LIVE

52°

Sacramento, CA



**Ceres Police officer cleared in 2 fatal shootings that happened months apart**



**VERIFY: \$999 fine and 3-year suspension for distracted driving?**



**Garbage man becomes Secret Santa for toddler who waves at him every week**

What to do during an active shooter situation: Run, Hide, Fi.

Video: ABC10KXTV

## Nonprofit marks El Paso shooting as 250th mass shooting in the U.S. for 2019

The organization defines "mass shooting" as four or more people shot and/or killed in a single event, at the same general time and location.

CALIFORNIA, USA — The shooting in El Paso, Texas marked the 250th mass shooting for the United States as of August 03, 2019, according to [GunViolenceArchive.org](https://www.gunviolencearchive.org).

It's a nonprofit that provides access to data relating to gun-related violence in the United States. To their list, the organization defines "mass shooting" as four or more people shot and/or killed in a single event, at the same general time and location. The definition doesn't accommodate for the shooter.

In the El Paso shooting, 20 people were confirmed dead by officials with more than two dozen injured. Police said the suspect in the shooting was taken into custody without incident, meaning no officers fired their guns and he surrendered and was detained with little force.

**RELATED:** [Texas Gov. Greg Abbott confirms 20 dead, two dozen injured in El Paso shooting](#)

Out of the 250 mass shootings, California accounted for 32 of them. The Gilroy Garlic Festival shooting charted as the 32nd mass shooting California experienced this year, according to GunViolenceArchive.

During the incident, officials said the Garlic Festival gunman opened fire and killed 3 people and injured many others before killing himself with a self-inflicted gunshot.

**RELATED:**

- [Who were the victims in the Gilroy Garlic Festival Shooting?](#)
- ['The worst thing to ever happen to Gilroy' | People worry about safety after Garlic Festival shooting](#)

California shootings charted by the organization include an incident in Sacramento and three in Stockton. list of the California specific shootings charted by the organization can be found below. For the organization's list of the 250 mass shootings in the country, click [HERE](#).

Ex. 11

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**1. Gilroy**

- July 28, 2019
- 4 people including killer, 13 injured

**2. Cangoa Park**

- July 25, 2019
- 4 killed, 2 injured

**3. San Jose**

- July 06, 2019
- 0 killed, 4 injured

**4. Los Angeles**

- July 04, 2019
- 0 killed, 4 injured

**5. Fresno**

- July 04, 2019
- 1 killed, 3 injured

**6. Oakland**

- June 30, 2019
- 0 killed, 4 injured

**7. Yucaipa**

- June 30, 2019
- 0 killed, 5 injured

**8. San Jose**

- June 23, 2019
- 5 killed, 0 injured

**9. La Jolla**

- June 23, 2019
- 1 killed, 3 injured

**10. Richmond**

- June 21, 2019
- 0 killed, 5 injured

**11. Santa Maria**

- June 21, 2019
- 5 killed, 0 injured

**12. Santa Rosa**

- June 05, 2019
- 0 killed, 4 injured

**13. West Covina**

- May 31, 2019
- 1 killed, 3 injured

**14. Stockton**

- May 26, 2019
- 1 killed, 3 injured

**15. Long Beach**

- May 18, 2019
- 1 killed, 4 injured

**16. Sacramento**

- May 17, 2019
- 1 killed, 3 injured

Ex. 11

**17. Los Angeles**

- May 14, 2019
- 0 killed, 4 injured

**18. Oceano**

- May 05, 2019
- 0 killed, 6 injured

**19. Stockton**

- May 04, 2019
- 1 killed, 4 injured

**20. Los Angeles**

- April 27, 2019
- 0 killed, 6 injured

**21. Poway**

- April 27, 2019
- 1 killed, 3 injured

**22. Stockton**

- April 14, 2019
- 0 killed, 4 injured

**23. Vallejo**

- April 14, 2019
- 1 killed, 3 injured

**24. Moreno Valley**

- April 13, 2019
- 0 killed, 4 injured

**25. Los Angeles**

- April 11, 2019
- 1 killed, 4 injured

**26. San Francisco**

- March 24, 2019
- 1 killed, 6 injured

**27. Oakland**

- March 03, 2019
- 0 killed, 4 injured

**28. Oakland**

- February 28, 2019
- 1 killed, 3 injured

**29. Palm Springs**

- February 03, 2019
- 4 killed, 0 injured

**30. San Diego**

- February 01, 2019
- 0 killed, 4 injured

**31. Palmdale**

- January 16, 2019
- 3 killed, 1 injured

**32. Torrance**

- January 04, 2019
- 3 killed, 4 injured

Ex. 11

1 XAVIER BECERRA  
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2 STEPAN A. HAYTAYAN  
Supervising Deputy Attorney General  
3 JENNIFER E. ROSENBERG  
Deputy Attorney General  
4 State Bar No. 275496  
300 South Spring Street, Suite 1702  
5 Los Angeles, CA 90013  
Telephone: (213) 269-6617  
6 Fax: (916) 731-2124  
E-mail: Jennifer.Rosenberg@doj.ca.gov  
7 *Attorneys for Defendants Xavier Becerra, in*  
8 *his official capacity as Attorney General of*  
9 *the State of California, and Brent E. Orick,*  
10 *in his official capacity as Acting Director of*  
11 *the Department of Justice Bureau of*  
12 *Firearms*

13  
14  
15 IN THE UNITED STATES DISTRICT COURT  
16  
17 FOR THE SOUTHERN DISTRICT OF CALIFORNIA  
18  
19  
20

21 **MATTHEW JONES; et al.,**

22 Plaintiffs,

23 v.

24 **XAVIER BECERRA, in his official**  
25 **capacity as Attorney General of the**  
26 **State of California, et al.,**

27 Defendants.  
28

3:19-cv-01226-L-AHG

**DECLARATION OF JENNIFER E.  
ROSENBERG IN SUPPORT OF  
DEFENDANTS' OPPOSITION TO  
PLAINTIFFS' MOTION FOR  
PRELIMINARY INJUNCTION**

**(Part 2 of 3)**

Judge: Hon. M. James Lorenz and  
Magistrate Judge Barbara  
Lynn Major

Action  
Filed: July 1, 2019

Second Amended Complaint  
Filed and  
Served: November 8, 2019

No hearing set for this motion pursuant  
to Dkt. 23.

# EXHIBIT 12



LOCAL // CRIME

# Mass shootings in California: Rare but increasingly deadly

Joaquin Palomino

July 31, 2019 | Updated: July 31, 2019 4 a.m.



Local Sporting Green Politics Biz+Tech Food Culture Desk Datebook US & World Opinion Vault: Archiv



A memorial with stuffed animals, candles, a toy car and a poster stating "Gilroy Strong" rests at the corner of Miller Ave. and Uvas Park Dr., near the entrance of Debell Uvas Creek Park Preserve, in Gilroy, Calif., on Tuesday, July 30, 2019. The space is dedicated to lives lost Sunday during the Gilroy Garlic Festival.

Photo: Photos by Yalonda M. James / The Chronicle

Sunday's tragic killings in Gilroy have placed the small agricultural community among dozens of cities and towns in California that have been forced to grapple with the trauma of increasingly devastating mass shootings.

A Chronicle analysis of state data found that over the past two decades, there have been at least 67 mass-casualty shootings in California, claiming a total of 251 lives and leaving scores more injured or traumatized. That number is based on federal guidelines published in 2013 that

Ex. 12

By that standard, The Chronicle found that the number of mass shootings has ebbed and flowed in California since the late 1990s, neither increasing nor decreasing dramatically. But when the tragedies do occur, they have grown more devastating, a trend researchers have also noted nationally.

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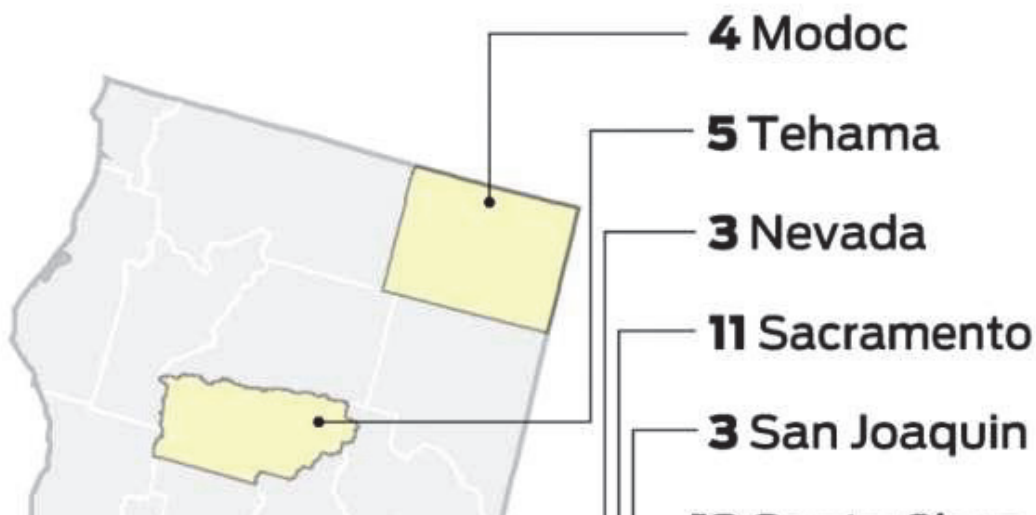
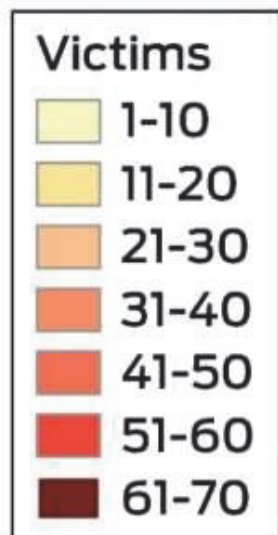
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“Over the past decade, mass public shootings haven’t become particularly more prevalent, they’ve simply become deadlier,” Grant Duwe, a leading researcher on the topic, wrote in an op-ed for Politico.

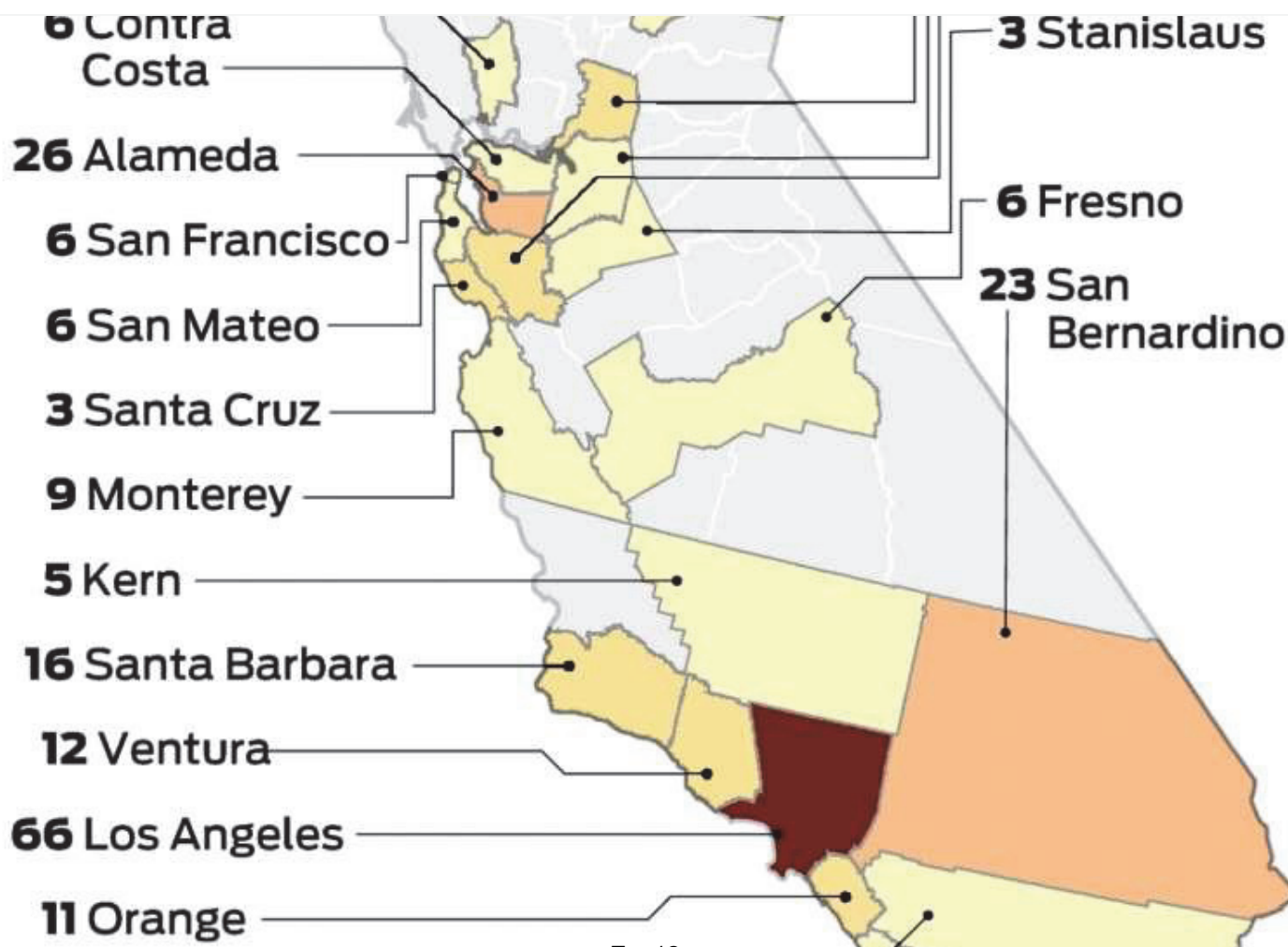
Of the 10 worst shootings in California between 1999 and 2018 — those that claimed five or more lives — all but two occurred in the relatively short window between 2011 and 2018, The

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# mass shooting victims in California counties, 1999-2018



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Ex. 12



### 3 San Diego

Source: Calif. Department of Justice John Blanchard / The Chronicle

- In 2011, eight people were shot and killed in a Seal Beach beauty salon, the worst mass shooting in Orange County's history.
- In 2012, seven people were shot and killed at Oikos University in Oakland, the worst mass shooting in Alameda County's history.
- In 2013, five people were fatally shot in a Santa Monica rampage that stretched from the killer's family home to a nearby community college.
- In 2014, six people were killed in Isla Vista near UC Santa Barbara, three by gunshot, scarring
- Local Sporting Green Politics Biz+Tech Food Culture Desk Datebook US & World Opinion Vault: Archiv
- In 2015, 14 people were shot and killed at the Inland Regional Center in San Bernardino, the worst mass shooting in recent California history.
- In 2017, five people were killed in a shooting spree in the Northern California community of Rancho Tehama.
- In 2018, five people were shot and killed in Bakersfield following a reported domestic dispute. Just months later, 12 were fatally shot at the Borderline Bar & Grill in Thousand Oaks.

#### Fifth & Mission

#### Horror at the Gilroy Garlic Festival

July 30, 2019

00:00

11:58



Reporter Lizzie Johnson joins Demian Bulwa to talk about the latest on the mass shooting in Gilroy. How did the shooter get his weapon? What was his motive? And who were the people — including two children — who died in the rampage? Learn more about your ad choices. Visit [megaphone.fm/adchoices](https://megaphone.fm/adchoices)

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shot to death in California. Only about 1% of them were killed in a shooting that left three or more dead.

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# Mass Shootings in California, 1999-2018

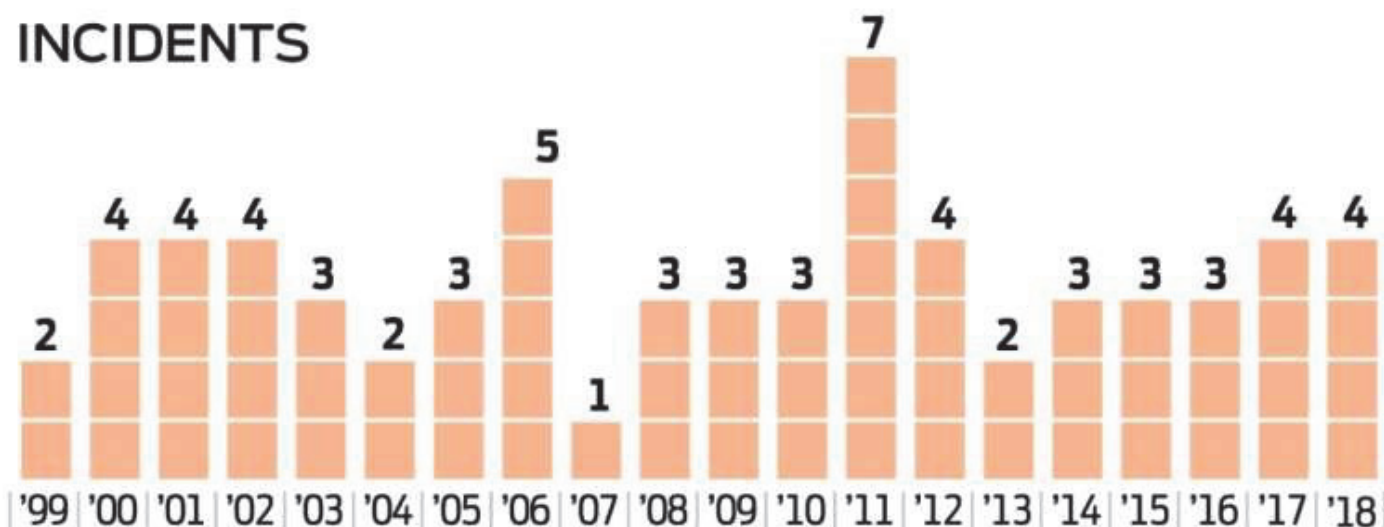
The Chronicle used federal guidelines that define a mass-casualty shooting as any single incident where three or more people are killed in a public place. There is no universally accepted definition, however, for such tragedies.

## THREE OR MORE DEATHS

### VICTIMS

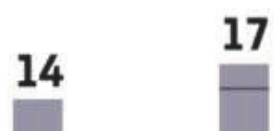


### INCIDENTS



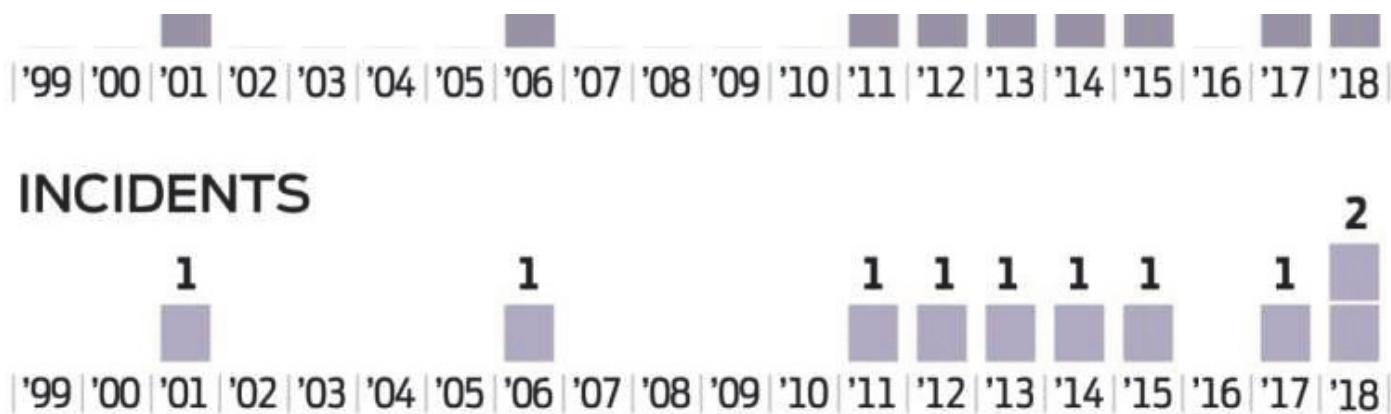
## FIVE OR MORE DEATHS

### VICTIMS



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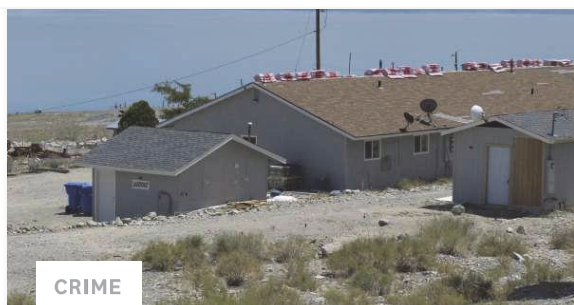


Source: Calif. Department of Justice John Blanchard / The Chronicle

Many of the cases also do not match the public's perception of mass-casualty shootings.

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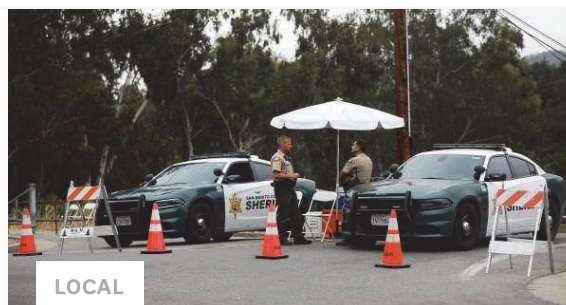
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CRIME

BY MATTHIAS GAFNI, DUSTIN GARDINER, TATIANA SANCHEZ AND KAREN DE SÁ

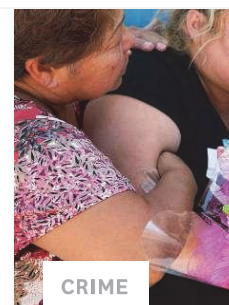
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LOCAL

BY GWENDOLYN WU

**Gilroy Garlic Festival shooting puts other Bay Area food,...**



CRIME

BY TATIANA SANCHEZ AND ERIN A

**Gilroy Garlic town in shock**

In 2016, a father, his 9-year old son and a friend were murdered outside a San Bernardino liquor store in a senseless crime that barely registered outside local news reports. Three teenagers, two reportedly in middle school, were shot to death in Rancho Cordova in 2011 while riding their bikes. Three men were killed in 2009 during a charity fundraiser in a suburban pizza parlor in Los Angeles County.

Such incidents, which make up many of the mass-casualty shootings in California, appear to go relatively unnoticed outside the communities where they occurred.



appeared to have been family-related murder-suicides. Incidents where three or more people were shot to death in a vehicle, including one from San Francisco, were also excluded.

While some researchers remove gang-related slayings or those that occurred during the commission of another crime when analyzing mass shootings, The Chronicle included those incidents because the motive was often unclear. Of the 67 mass-casualty shootings we counted, at least 16 were believed to be gang related by local law enforcement, according to state data.

Due to errors in the raw data published by the California Department of Justice, not every mass-casualty shooting may have been included in the analysis. In some incidents, such as the Isla Vista rampage, people who were stabbed to death or killed by other means also were counted among the total victims.

*Joaquin Palomino is a San Francisco Chronicle staff writer. Email: [jpalomino@sfchronicle.com](mailto:jpalomino@sfchronicle.com)  
Twitter: [@JoaquinPalomino](https://twitter.com/JoaquinPalomino)*

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in his official capacity as Acting Director of  
the Department of Justice Bureau of  
Firearms*

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF CALIFORNIA

**MATTHEW JONES; et al.,**  
  
Plaintiffs,  
  
v.  
  
**XAVIER BECERRA, in his official  
capacity as Attorney General of the  
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Defendants.

3:19-cv-01226-L-AHG

**DECLARATION OF JENNIFER E.  
ROSENBERG IN SUPPORT OF  
DEFENDANTS' OPPOSITION TO  
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**(Part 3 of 3)**

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Lynn Major

Action  
Filed: July 1, 2019

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# EXHIBIT 13

# MotherJones

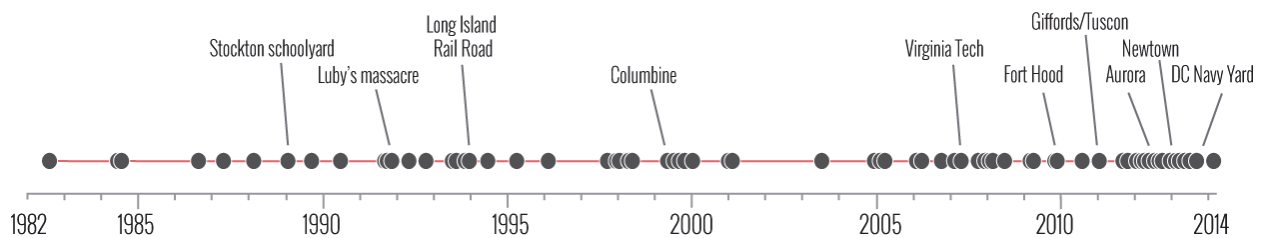
CRIME AND JUSTICE OCTOBER 21, 2014

## Yes, Mass Shootings Are Occurring More Often

*New research from Harvard shows a chilling rise in public mass shootings—and debunks a popular claim that they haven't increased.*

MARK FOLLMAN

### Time Between Mass Shootings, 1982-2014



Data analysis by Harvard School of Public Health

Mother Jones

(Click to enlarge)

**Editor's note:** A version of this article first appeared in the Los Angeles Times.

It's not a matter of if, but when and where the next mass shooting will happen: It might take place at another shopping mall, or college campus, or suburban office building, and probably not long from now. Yet, as these disturbing incidents keep appearing in the headlines, various commentators have argued that mass shootings are not on the rise.

That may be true if you look at all mass shootings, including gang killings and in-home violence stemming from domestic abuse. But new research from the Harvard School of Public Health demonstrates that mass shootings in public have become far more frequent. The Harvard findings are also corroborated by a separate report issued recently by the FBI.

After a heavily armed young man gunned down 12 people and wounded 58 others at a movie theater in Aurora, Colorado, in July 2012, my colleagues at *Mother Jones* and I began examining how often mass shootings in public places occurred. Finding no reliable answer, we set about gathering three decades of data. We discovered that such shootings were on the rise—even before the horror at Sandy Hook Elementary, the Washington Navy Yard, Ft. Hood, and near UC-Santa Barbara.

***The FBI data is nearly identical to the data Mother Jones collected: "That the results of the two studies are so similar,"***

though mass shootings make an outsized psychological impact, they are a tiny fraction of the nation's overall gun violence, which takes more than 30,000 lives annually. Rather than simply tallying the yearly number of

mass shootings, Harvard researchers Amy Cohen, Deborah Azrael, and Matthew Miller determined that their frequency is best measured by tracking the time between each incident. This method, they explain, is most effective for detecting meaningful shifts in relatively small sets of data, such as the 69 mass shootings we documented. Their analysis of the data shows that from 1982 to 2011, mass shootings occurred every 200 days on average. Since late 2011, they found, mass shootings have occurred at triple that rate—every 64 days on average. (For more details on their analytical method, see this related piece.)

***the Harvard researchers say,  
“reinforces our finding that  
public mass shootings have  
increased.”***

(Click to enlarge)

There has never been a clear, universally accepted definition of “mass shooting.” The data we collected includes attacks in public places with four or more victims killed, a baseline established by the FBI a decade ago. We excluded mass murders in private homes related to domestic violence, as well as shootings tied to gang or other criminal activity. (Qualitative consistency is crucial, even though any definition can at times seem arbitrary. For example, by the four-fatality threshold neither the attack at Ft. Hood in April nor the one in  
<https://www.motherjones.com/politics/2014/10/mass-shootings-rising-harvard/>

***One criminologist argues that mass shootings are too rare to merit significant policy changes—and suggests that we may simply have to live with them.***

they are too rare to merit significant policy changes. As he put it recently in an interview with CNN’s Jake Tapper: “We treasure our personal freedoms in America, and unfortunately, occasional mass shootings, as horrific as they are, is one of the prices that we pay for the freedoms that we enjoy.”

But in drawing his conclusions, Fox relies on overly broad data. His study is misguided, the Harvard researchers say, because it conflates public mass shootings with a larger set of mass murders that are “contextually distinct,” primarily those in private homes. According to data compiled by *USA Today*, there have been at least 95 domestic-violence-related mass shootings since 2006 alone. These crimes are no less awful (and we’ve reported on them too). But mass murders in schools and shopping malls are a different monster in terms of impact on public safety and the complicated policy questions they raise—not least how they might be stopped.

In response to the Harvard research, Fox insisted that mass shootings should not be distinguished categorically by their circumstances. “To the victims who are slain, it hardly matters whether they were killed in public or in a private home,” he told the *Huffington Post*. “Nor does it matter if the assailant was a family member or a stranger. They are just as dead.”

But the question of whether public mass shootings can be prevented hinges on understanding the complex factors behind them—which starts with tracking these shootings accurately. That, at least, is a role that the federal government is poised to assume: Last year President Obama signed the Investigative Assistance for Violent Crimes Act, which authorizes the Department of Justice to investigate mass shootings in public places. Notably, the law defines the threshold for these crimes as three or more people killed—which means eventually we’ll have data showing that the scope of the problem is far greater than we’ve already seen.

***For more of Mother Jones’ reporting on guns in America, see all of our latest coverage here, and our award-winning special reports.***

The FBI report, which includes 160 “active shooter” cases between 2000 and 2013, notes explicitly that it is not a study of mass shootings. Rather, it analyzes incidents in which shooters are “actively engaged in killing or attempting to kill people” in a public place, regardless of the number of casualties. But within the FBI’s 160 cases is a subset of 44 mass shootings (in which four or more were murdered) nearly identical to *Mother Jones’* data set from the same time period. The Harvard researchers underscore that the FBI had access to law enforcement sources that *Mother Jones* did not: “That the results of the two studies are so similar reinforces our finding that public mass shootings have increased.”

James Alan Fox, a widely cited criminologist from Northeastern University, has argued that mass shootings are not on the rise, and that



# EXHIBIT 14

WAMU | NOV 2, 2018

# Since 1982, 74 Percent Of Mass Shooters Obtained Their Guns Legally



Luis Melgar



Lisa Dunn

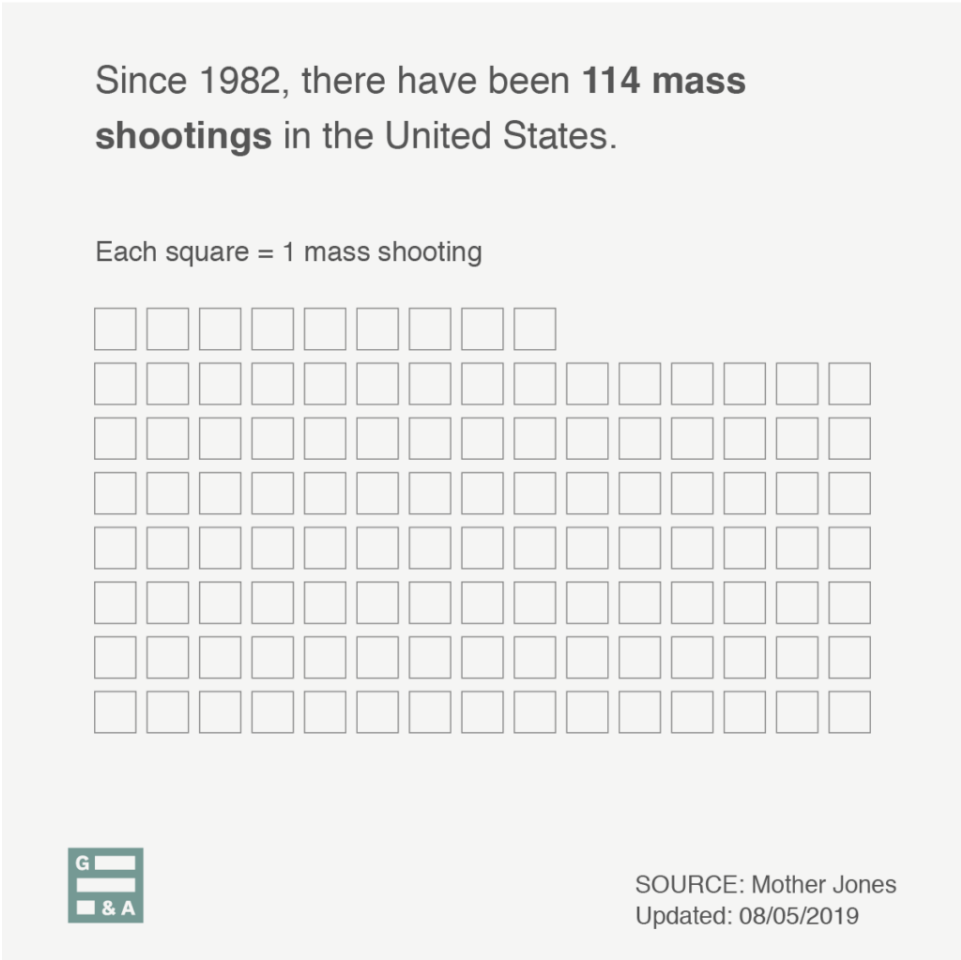


Since 1982, there have been 114 mass shootings in the U.S., most of them involved guns bought legally.

Luis Melgar / WAMU

In the aftermath of a mass shooting, a recurring question arises: How did the shooter get the gun?

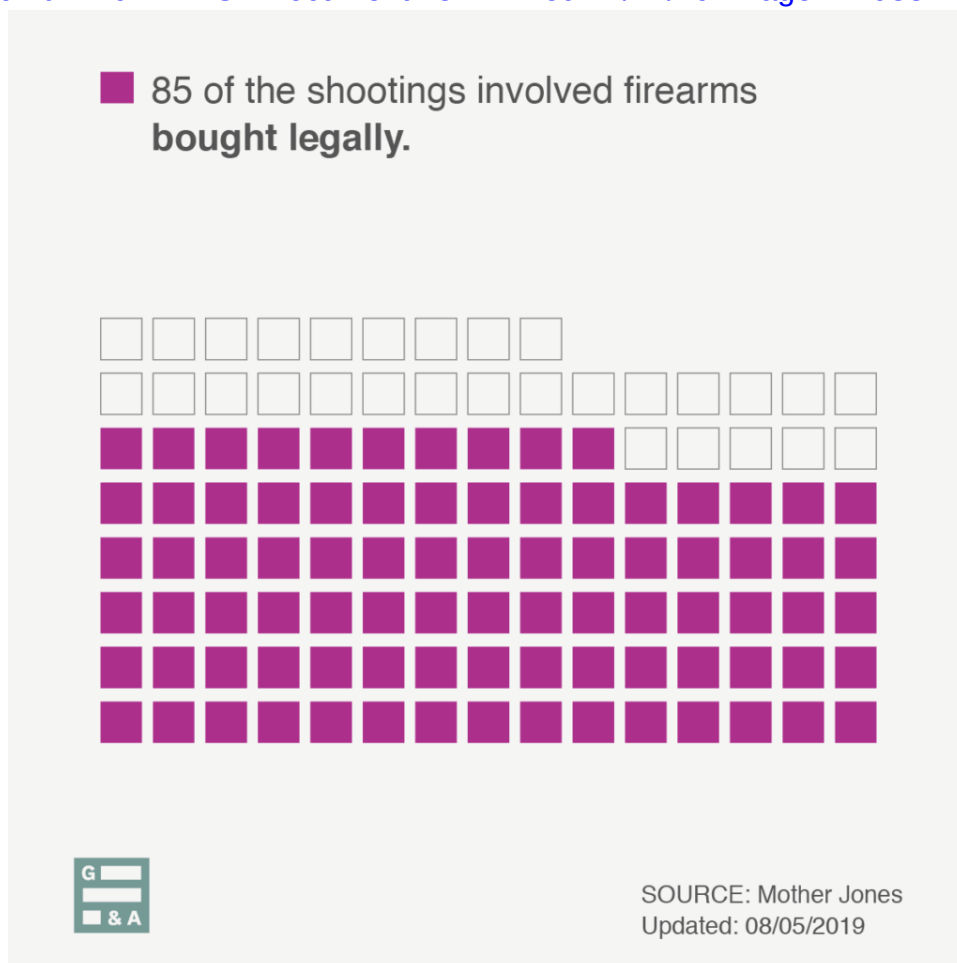
In most cases, the perpetrator legally bought the firearms in question.



Since 1982, there have been 114 mass shootings in the U.S.

Luis Melgar, WAMU / WAMU

Of the 114 mass shootings committed in the U.S. since 1982, 85 (or 74%) involved firearms obtained by legal means, as shown in this analysis of the mass shooting database created by news organization *Mother Jones*.



74% of the shootings involved firearms bought legally.

Luis Melgar / WAMU

## What's considered a "mass shooting"?

There is no standard definition of what constitutes a mass shooting, which can make analyzing mass shooting incidents difficult. It can also lead to different results in studies of mass shootings. [More on that here.](#)

The Mother Jones data used for this visual defines mass shootings as public attacks in which the shooter and victims were *generally* unknown to each other, and four or more people were killed. The data set excludes all multiple murders related to drugs, gangs or domestic violence.

## Where did the rest of the guns come from?

Seventeen of the guns used in mass shootings in the last 36 years — roughly 15% — were obtained in other ways:

- In **eight cases** shooters took their guns from family members
- In **four cases** they were purchased illegally
- In **three cases** they were stolen
- In **one case** the shooter illegally kept his gun after losing his state firearms license, which required him to surrender his firearm
- And in **one case** the shooter illegally built their own firearms

## 74 + 15 does not equal 100. What about the other 10%?

In 12 of the mass shootings — roughly 10.5% — we don't know how the shooter obtained their firearms.

In the case of the shooter in Dayton, Ohio, he used a legal 100-round drum magazine attached to his gun, with which he fired 41 shots in 30 seconds.

In the aftermath of a mass shooting,  
there's one recurring question:

How did the shooter  
get **the gun**?

Most of the firearms used in mass shootings were bought legally.

Luis Melgar / WAMU

## Some other national studies on how mass shooters got their guns

While we started with data from *Mother Jones* for this visual, there are numerous other studies that support our findings and can provide further resources.

For example, *The New York Times* recently studied 19 mass shootings and found that in the vast majority (**more than 75%**) of instances the firearms used were bought legally with a federal background check. This group does not include the Tree of Life Synagogue shooting in Pittsburgh, but the ATF concluded the alleged perpetrator of that shooting legally purchased the 10 guns he owned, including those allegedly used in the shooting.

Last October, *The Washington Post* studied 156 public mass shootings in the U.S. dating back to 1966 and found that **77%** of the guns used (where there was information on how the gun was obtained) were bought legally.

Ex. 14

In June 2018, the FBI studied dozens of active shooting incidents between 2000 and 2013 and found that **only 2%** of the active shooters studied purchased firearms *illegally*.

Methodology

The data was compiled by *Mother Jones* and was updated by *Guns & America*. In some cases, additional reporting suggested changes to how Mother Jones had categorized the method the shooters used to obtain the firearms used.

*Guns & America* is a public media reporting project on the role of guns in American life.



FILED UNDER: Data Visualization, Explainer, News

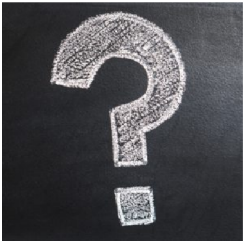


Luis Melgar

Luis Melgar is the data journalist for Guns & America, based in Washington, D.C.

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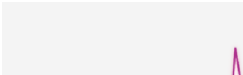
GUNS & AMERICA, AUG 4  
What Is A Mass Shooting?



WAMU, AUG 23, 2018  
6 Common Misconceptions About Mass Shooters



GUNS & AMERICA, SEP 2  
El Paso, Dayton, Odessa. Understanding Mass Shooting Trends In America





CONNECTICUT PUBLIC RADIO, FEB 15

## The Disconnect Between Banning High-Capacity Magazines And Decreasing Deaths

3:47





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# How They Got Their Guns

By LARRY BUCHANAN, JOSH KELLER, RICHARD A. OPPEL JR. and DANIEL VICTOR UPDATED FEB. 16, 2018

A vast majority of guns used in 19 recent mass shootings were bought legally and with a federal background check. At least nine gunmen had criminal histories or documented mental health problems that did not prevent them from obtaining their weapons. [Related Article](#)



FEB. 14, 2018

Seventeen people were killed when Nikolas Cruz, 19, opened fire at his former high school in Parkland, Fla., with a Smith & Wesson M&P semiautomatic rifle.

[RELATED ARTICLE](#)

FEBRUARY 2017

Mr. Cruz legally bought the [AR-15-style](#) rifle at Sunrise Tactical Supply in Florida.

2017

Mr. Cruz [was expelled](#) from Marjory Stoneman Douglas High School for disciplinary reasons. He was described as a “troubled kid” who enjoyed showing off his firearms and bragged about killing animals.

JANUARY 2018

A person close to Mr. Cruz warned the F.B.I. that Mr. Cruz had the potential to conduct a school shooting and a “desire to kill people, erratic behavior, and disturbing social media posts.” The F.B.I. said [it failed to act](#) on the tip.

FEB. 14, 2018

Mr. Cruz killed 17 people at Marjory Stoneman Douglas High School.



NOV. 5, 2017

A gunman identified as Devin Patrick Kelley, 26, opened fire at a Sunday service in a rural Texas church, killing at least 26 people. The authorities said Mr. Kelley used a Ruger AR-15 variant, a knockoff of the standard service rifle carried by the American military.

[RELATED ARTICLE](#)

2012	2014	2016 - 2017	NOV. 5, 2017	NOV. 6, 2017
Mr. Kelley, who was in the Air Force, was convicted of assaulting his wife and breaking his infant stepson's skull. An airman first class, he was sentenced to 12 months' confinement and a reduction to the lowest possible rank, E-1.	Mr. Kelley received a "bad conduct" discharge from the Air Force.	Mr. Kelley purchased two firearms — one in 2016 and one in 2017 — from two Academy Sports & Outdoors stores in San Antonio. He passed a federal background check in both cases , according to a statement released by the store.	Twenty-six people were killed and at least 20 more were wounded at the church shooting in Sutherland Springs. Mr. Kelley was later found dead in his vehicle. The police recovered two additional handguns from the car.	The Air Force admitted that it had failed to enter Mr. Kelley's domestic violence conviction into federal databases, which could have blocked him from buying the rifle he used in the massacre.

OCT. 1, 2017

Fifty-eight people were killed and more than 500 were wounded when Stephen Paddock, from a perch high in a hotel, opened fire onto a crowd of concertgoers at an outdoor music festival in Las Vegas. Authorities recovered an arsenal of weapons — at least 23 from his hotel room — including AR-15-style rifles.

[RELATED ARTICLE](#)

SINCE 1982

Mr. Paddock started buying firearms in 1982, said Jill Snyder, a special agent in charge at the Bureau of Alcohol, Tobacco, Firearms and Explosives.

• WITHIN A YEAR OF THE SHOOTING

Mr. Paddock legally purchased 33 firearms from Oct. 2016 to Sept. 2017, Ms. Snyder said. Most of those guns were rifles. Such purchases do not prompt reports to the bureau because there is [no federal law](#) requiring a seller to alert the bureau when a person buys multiple rifles.

• OCT. 1

Fifty-eight people were killed when Mr. Paddock fired onto the crowd of more than 22,000 from his hotel room at the Mandalay Bay Resort and Casino in Las Vegas. He used at least one semiautomatic rifle modified to fire like an automatic weapon by attaching a “bump stock,” not shown above.

• AFTER THE SHOOTING

Authorities retrieved 47 guns from the hotel room and Mr. Paddock’s homes in Mesquite and Verdi, Nev. The bureau found Mr. Paddock purchased most of the guns in Nevada, Utah, California and Texas. Twelve of the rifles recovered from the hotel were each outfitted with [a bump stock](#).

JUNE 12, 2016

Forty-nine people were killed and 53 wounded when Omar Mateen opened fire at a crowded gay nightclub in Orlando, Fla. He used two guns: a Sig Sauer AR-15-style assault rifle and a Glock handgun.

[RELATED ARTICLE](#)

Ex. 15

2013	<ul style="list-style-type: none"><li>• A FEW DAYS BEFORE THE SHOOTING</li></ul>	<ul style="list-style-type: none"><li>• JUNE 12, 2016</li></ul>
The F.B.I. learned that Mr. Mateen had made comments to co-workers alleging possible terrorist ties, an official said. The next year, the F.B.I. investigated him again for possible ties to an American who went to Syria to fight for an extremist group, but authorities concluded that he “did not constitute a substantive threat at that time.”	Mr. Mateen legally bought two guns , a federal official said. “He is not a prohibited person, so he can legally walk into a gun dealership and acquire and purchase firearms,” said Trevor Velinor, an agent at the Bureau of Alcohol, Tobacco, Firearms and Explosives.	Forty-nine people were killed and 53 more were wounded in the crowded nightclub. Mr. Mateen was killed inside the club by the police.



DEC. 2, 2015

Syed Rizwan Farook and Tashfeen Malik, husband and wife, killed 14 people at a holiday office party in San Bernardino, Calif. Four guns were recovered: a Smith & Wesson M&P assault rifle, a DPMS Panther Arms assault rifle, a Smith &

# Wesson handgun and a Llama handgun.

[RELATED ARTICLE](#)

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BEFORE THE SHOOTING	• BETWEEN 2007 AND 2012	• BETWEEN 2007 AND 2012	• DEC. 2, 2015
“We believe that both subjects were radicalized and for quite some time,” said David Bowdich, the F.B.I. assistant director. The attackers are not known to have had previous contact with law enforcement.	Mr. Farook bought the two handguns legally in California, federal officials said. The guns were purchased at Annie’s Get Your Gun, a gun store in Corona, Calif., The Los Angeles Times reported.	Enrique Marquez, a former neighbor of Mr. Farook’s family, bought the two assault rifles in California, officials said. Mr. Marquez was later charged with lying about the rifle purchases and supplying the assault weapons to the attackers.	The couple killed 14 people at a holiday party. Moments before the attack began, Ms. Malik posted an oath of allegiance to the Islamic State on Facebook.

OCT. 1, 2015

Christopher Harper-Mercer, 26, killed nine people at Umpqua Community College in Oregon, where he was a student. He was armed with six guns, including a Glock pistol, a Smith & Wesson pistol, a Taurus pistol and a Del-Ton assault rifle, according to The Associated Press.

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Mr. Harper-Mercer was in the Army for one month, but was discharged before completing basic training.	He graduated from the Switzer Learning Center in Torrance, Calif., which teaches students with learning disabilities and emotional issues.	In all, Mr. Harper-Mercer owned 14 firearms, all of which were bought legally through a federally licensed firearms dealer , a federal official said. Some were bought by Mr. Harper-Mercer, and some by members of his family.	He killed nine people in Roseburg, Ore.
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AUG. 26, 2015

Vester Lee Flanagan II, 41, shot and killed a Roanoke, Va., television reporter and a cameraman with a Glock handgun while they were reporting a story live.

[RELATED ARTICLE](#)

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2000	•	2012	•	JUNE 2015	•	AUG. 26, 2015
Mr. Flanagan filed a lawsuit against a TV station in Tallahassee, Fla., that had fired him, alleging he was the victim of racial slurs and bullying.		He was hired at WDBJ in Roanoke, but within months his bosses had documented problems with his harsh language and aggressive behavior. He was later fired and filed another harassment lawsuit.		Federal officials said Mr. Flanagan bought the gun legally from a licensed dealer . He had not been convicted of a crime or determined to be mentally ill.		Mr. Flanagan killed the reporter and cameraman, injured a woman who was being interviewed and died after shooting himself.

JULY 23, 2015

Using a .40-caliber semiautomatic pistol bought from a pawnshop, John R. Houser killed two people and wounded nine others at a movie theater in Lafayette, La.

[RELATED ARTICLE](#)

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2006	•	2008	•	2014	•	JULY 23, 2015
Mr. Houser was denied a state-issued concealed weapons permit because he was accused of		A judge ordered him sent to a psychiatric hospital.		Mr. Houser bought the weapon in Alabama. Officials said it had been purchased legally , though he had been denied a concealed		He killed two people in Lafayette.

12/27/2019

domestic violence and soliciting  
arson.

How They Got Their Guns - The New York Times

weapons permit earlier, and despite concerns  
among family members that he was violent  
and mentally ill.

JUNE 17, 2015

Dylann Roof, 21, killed nine people  
with a .45-caliber Glock pistol at a  
historic black church in Charleston,  
S.C.

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FEBRUARY 2015

Mr. Roof was charged with a  
misdemeanor for possessing  
Suboxone, a prescription drug  
frequently sold in illegal street  
transactions.

• APRIL 2015

He purchased a gun from a store in West  
Columbia, S.C. Mr. Roof should have been  
barred from buying a gun because he had  
admitted to possessing drugs, but the F.B.I.  
examiner conducting the required background  
check failed to obtain the police report from  
the February incident.

• JUNE 17, 2015

Mr. Roof joined a Bible study  
group at Emanuel A.M.E.  
Church and opened fire with  
the gun he bought in April.

OCT. 24, 2014

Jaylen Ray Fryberg, 15, used his  
father's Beretta pistol to shoot and  
kill four students in his high school's  
cafeteria in Marysville, Wash.

[RELATED ARTICLE](#)

2002

Raymond Lee Fryberg Jr., Jaylen's father, was  
the subject of a permanent domestic violence  
protection order, which should have been  
entered into the federal criminal background  
database.

• 2013

Mr. Fryberg applied to buy the Beretta from a  
gun shop on the Indian reservation where he  
lived with Jaylen. A background check failed  
to come up with the protection order because  
it was never entered into the system.

• OCT. 24, 2014

Jaylen Fryberg texted five of his fellow  
students to come to the cafeteria,  
where he opened fire.

APRIL 2, 2014

Specialist Ivan Antonio Lopez opened fire at Fort Hood with a Smith & Wesson semiautomatic pistol, killing three people and wounding 16 others.

[RELATED ARTICLE](#)

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2011	• MARCH 2014	• MARCH 1, 2014	• APRIL 2, 2014
Specialist Lopez came back from a four-month deployment to Iraq and told his superiors that he had suffered a traumatic head injury there. Military officials said he had never seen combat and was being evaluated for possible post-traumatic stress disorder.	Specialist Lopez had seen a military psychiatrist as recently as the month before the shooting. He was being treated for depression and anxiety, and had been prescribed Ambien to help him sleep.	Mr. Lopez legally bought his gun at the same shop where Nidal Malik Hasan, an Army major, had bought at least one of the weapons used in a 2009 mass shooting on the base that killed 13 people.	Around 4 p.m., Mr. Lopez started firing on soldiers.

SEPT. 16, 2013

Aaron Alexis, 34, used a Remington shotgun to kill 12 people at the Washington Navy Yard.

[RELATED ARTICLE](#)

2011	• A MONTH BEFORE THE SHOOTING	• SEPT. 2013	• SEPT. 16, 2013
Mr. Alexis was given an honorable discharge after showing what Navy officials called a “pattern of	He twice sought treatment from the Department of Veterans Affairs for psychiatric issues. He told police in Rhode Island that	He was stopped from buying an assault rifle at a Virginia gun store, but was allowed to buy a shotgun.	He killed 12 people at the Navy Yard.



misbehavior” during four years as  
a reservist.

people were pursuing him and sending  
vibrations through the walls of his hotel.

He passed local and state  
background checks.

DEC. 14, 2012

Adam Lanza, 20, shot and killed his mother in their home, then killed 26 people, mostly children, at Sandy Hook Elementary School in Newtown, Conn., using a Bushmaster XM-15 rifle and a .22-caliber Savage Mark II rifle.

[RELATED ARTICLE](#)

2009	AFTER HIGH SCHOOL	BEFORE THE SHOOTING	DEC. 14, 2012
Mr. Lanza graduated from high school. Some classmates said he had been bullied in high school. He struggled with a developmental disorder and was described as acutely shy, not known to have close friends.	He was “completely untreated in the years before the shooting” for psychiatric and physical ailments like anxiety and obsessive-compulsive disorder, a state report found.	His mother, Nancy Lanza, a gun enthusiast, legally obtained and registered a large collection of weapons and would often take her sons to shooting ranges.	Mr. Lanza used his mother’s guns to kill her and 26 others.

AUG. 5, 2012

Wade M. Page, 40, killed six people with a Springfield Armory semiautomatic handgun when he opened fire in the lobby of a Sikh temple in Oak Creek, Wis., as congregants arrived for Sunday services.

[RELATED ARTICLE](#)

1994	EARLY 2000S	JULY 2012	AUG. 5, 2012
While in the Army at Fort Bliss in El Paso, Tex., Mr. Page was charged with criminal mischief after kicking	He came to the attention of authorities because of his affiliation with a white-power	He bought the firearm legally at a gun shop outside Milwaukee. He	He killed six people and wounded three

holes in the wall of a bar. He pleaded guilty.

band called End Apathy, which performed songs with violent lyrics.

passed a background check and paid \$650 in cash.

others at the temple.

JULY 20, 2012

James E. Holmes, 24, killed 12 people and wounded 70 at a theater in Aurora, Colo., using a Smith & Wesson semiautomatic rifle, a Remington shotgun and a Glock .40-caliber semiautomatic pistol.

[RELATED ARTICLE](#)

MARCH 2012	MAY 2012	MAY 2012	JULY 20, 2012
Over four months, Mr. Holmes legally bought more than 3,000 rounds of ammunition for handguns, 3,000 rounds for a semiautomatic rifle and 350 shells for a 12-gauge shotgun, all over the Internet.	He was seeing a psychiatrist and in the process of withdrawing from a graduate program at the University of Colorado Denver's Anschutz Medical Campus.	In the 60 days before the shooting, he bought four guns legally at local gun shops . Seeing a psychiatrist, even for a serious mental illness, would not disqualify him from buying a gun.	He opened fire in the theater, killing 12 people.

APRIL 2, 2012

One L. Goh, 43, opened fire with a semiautomatic handgun at a small religious college in Oakland, Calif., where he had been a student. He killed seven people.

[RELATED ARTICLE](#)

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BEFORE SHOOTING	EARLY 2012	APRIL 2, 2012	JAN. 2013
"He was a loner and what some might call a loser, but he didn't exhibit any behaviors that would have alerted anyone," a district attorney told reporters after the shooting, according to CNN.	Mr. Goh legally bought the handgun at a gun store in Castro Valley, Calif. , passing a federal background check.	He killed seven people at Oikos University in Oakland.	A judge ruled he was not fit for trial after two psychiatric evaluations concluded that he had paranoid schizophrenia.

JAN. 8, 2011

Jared L. Loughner, 22, killed six people with a Glock handgun in a supermarket parking lot in Tucson, Ariz., at an event for Gabrielle Giffords, who was a Democratic representative from Arizona.

[RELATED ARTICLE](#)

Mr. Loughner was arrested for possession of drug paraphernalia, but the charges were dropped. The next year, he failed a drug test when trying to enlist in the Army. Neither incident barred him from buying a gun.

He was forced to withdraw from community college because of campus officials' fears about the safety of the staff and students, his parents later said. The incident would not have shown up on a background check.

He passed a background check and bought the handgun at a store in Tucson, Ariz.

He killed six people in Tucson.

NOV. 5, 2009

Maj. Nidal Malik Hasan, 39, an Army psychiatrist facing deployment to Afghanistan, opened fire inside a medical processing building at Fort Hood in central Texas, killing 13 people and wounding 43 others. He was armed with an FN Herstal pistol.

[RELATED ARTICLE](#)

DEC. 2008-JUNE 2009	JUNE 2009	JULY 31, 2009	NOV. 5, 2009
Intelligence agencies intercepted 10 to 20 messages between Mr. Hasan and Anwar al-Awlaki, a radical cleric in Yemen known for his incendiary anti-American teachings.	Federal authorities dropped an inquiry about the messages after deciding that they did not suggest any threat of violence.	Mr. Hasan bought the pistol legally at a popular weapons store in Killeen, Tex., paying more than \$1,100.	He shot and killed 13 people at Ford Hood.

APRIL 3, 2009

Jiverly Wong, 41, fired at least 98 shots from two handguns, a Beretta 92 FS 9-millimeter pistol and a Beretta PX4 Storm pistol, inside a civic association in Binghamton, N.Y., where he had taken an English class. He killed 13 former classmates and association employees.

[RELATED ARTICLE](#)

#### BEFORE THE SHOOTING

Mr. Wong had been arrested, cited or had some minor contact with the police at least five times since 1990, but details about the cases remain unclear. At the time of the shootings, he was not a subject in any investigation, nor did he have a documented mental health issue.

#### MARCH 2008

Mr. Wong bought the first gun, the Beretta 92, at a store in Johnson City, N.Y. He passed a background check.

#### MARCH 2009

Mr. Wong bought the second gun from the same store, but his background check was not approved immediately. He received the gun under a federal rule that allows a gun to be sold if the background check system does not return a decision in three business days.

#### APRIL 3, 2009

He killed 13 people in Binghamton.

Note: Information on the precise version or year of manufacture of each gun was not always available, so a version of the model or a similar one is shown. The handguns used by Christopher Harper-Mercer are omitted because the models have not been released. The guns shown for Adam Lanza do not include the gun he used to shoot himself.

Source: Government and law enforcement officials

Additional work by Wilson Andrews, Sarah Almukhtar, Alicia DeSantis, Guilbert Gates, Josh Katz, Julie Shaver and Karen Yourish.

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## Orlando Shooting



## Why the Orlando Shooting Was So Deadly

[June 16, 2016](#)

# **EXHIBIT 16**





Health Science

# As the wounded kept coming, hospitals dealt with injuries rarely seen in the U.S.

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By [Tim Craig](#),  
[Felicia Mello](#) and  
[Lena H. Sun](#)

October 3, 2017

LAS VEGAS — As trauma nurse Renae Huening rushed into Sunrise Hospital and Medical Center on Sunday night, she "followed a trail of blood indoors."

Dozens of patients already were crammed into the waiting area, hallways and rooms of the hospital's emergency department. Some were "red-tagged," meaning they needed attention immediately. Names were being assigned randomly because there was no time to register people or find IDs.

Huening could smell the blood.

"The air smells like iron," she recalled Tuesday, barely 24 hours after hundreds of doctors and nurses throughout Las Vegas treated more than 500 victims of the worst mass shooting in modern U.S. history.

"You're standing in a pool of blood trying to care for your patient, slipping and sliding," Huening said. "Soon you're covered in blood yourself."

As investigators fill in the details of Stephen Paddock's rampage during a country music festival along the Las Vegas Strip, doctors, nurses and paramedics are recounting injuries they say are rarely seen in this country. And even the hardest medical professionals acknowledged being rattled.

With Paddock perched on the 32nd floor of the Mandalay Bay Resort and Casino and firing military-style rifles onto the crowd of concertgoers below, the scale and degree of physical damage were extreme.

So many patients poured into the city's hospitals that pediatric surgeons were operating on adults and obstetricians were attending to trauma patients.

Many of the most critically wounded patients arrived at the 541-bed University Medical Center of Southern Nevada, the state's only Level One trauma center. Over about four hours, it received 104 patients. More than 80 percent were gunshot victims.

Douglas R. Fraser, the hospital's chief of trauma surgery, struggled with other doctors there to deal with bullet wounds in torsos and limbs that had shredded human flesh into "unusual patterns," caused "extreme fractures" and bounced through bodies with horrific force.

"These were quite large wounds that we saw," he said Tuesday. "The fractured shrapnel created a different pattern and really injured bone and soft tissue very readily. This was not a normal pattern of injuries."

Gun deaths are this nation's third-leading cause of injury-related fatalities, with the most recent data showing that firearms accounted for more than 36,200 deaths in 2015. Over a nine-year period, according to data from the Centers for Disease Control and Prevention, almost 971,000 people were hurt or killed by firearms in the United States — with a just-released study finding that such injuries cost nearly \$25 billion in hospital emergency and inpatient care from 2006 to 2014.

The devastation that semiautomatic rifles cause to the human body is extreme because they put vastly more energy behind bullets than handguns do.

The velocity of a bullet fired from a typical 9mm handgun is 1,200 feet per second. From an AR-15 semiautomatic, the bullet travels roughly three times faster, and the body must absorb all of that energy.

If a 9mm bullet strikes someone in the liver, for example, that person might suffer a wound perhaps an inch wide, said Ernest E. Moore, a longtime trauma surgeon at Denver Health and editor of the Journal of Trauma and Acute Care Surgery. "But if you're struck in the liver with an AR-15, it would be like dropping a watermelon onto the cement. It just is disintegrated."

Survival generally depends on several factors: the position of the body when it was struck and its distance from the weapon; the velocity of the bullet and the type used; and the location of the entry wound and path the bullet follows before it exits — if it exits at all.

Once inside the body, a high-velocity bullet causes a shock wave as it blasts through tissue. The reverberations expand outward, causing more harm.

"When that happens, it stretches all the blood vessels and tears them, and you lose blood supply to the entire area," said Faran Bokhari, chairman of the Trauma and Burn Unit at Cook County Health and Hospitals System in Chicago, which sees 1,000 gunshot victims a year.

By contrast, even a grievous knife wound damages only the organs and tissues directly in its path.

About half of the victims taken to University Medical Center suffered graze wounds, probably from bullets that ricocheted off the ground, Fraser said. Other patients may have been struck by bullets that passed through

other victims. Some were hurt as they tried to flee — or were trampled in the panic.

But 30 were in critical condition after suffering direct hits, he said.

Across the city, hospital administrators called in their entire staffs within minutes of hearing of the shooting and mass casualties. Elite neurosurgeons were mobilized. Environmental technicians were tasked with cleaning up blood.

And the patients just kept coming — by ambulance, in the beds of pickup trucks, in the backs of SUVs.

Of those who arrived at University Medical Center, Fraser believes, doctors were unable to revive only one — someone who had been shot in the head.

"A lot of the injuries were gunshots to the chest," Fraser said. He spoke Tuesday as a professional, matter of fact rather than emotional. "Many did not require surgery but required chest tubes to the chest so they could breathe better. The other patients had surgery to remove holes to their bowels and intestines."

For hours, some patients were in danger of suffocating on their own blood. So many wounds resembled those most often seen on battlefields that the hospital quickly contacted four Air Force trauma surgeons who happened to be participating in a visiting-fellow program there.

"They are used to seeing those things," Fraser said.

At one point early Monday, surgeons were conducting five operations simultaneously. "They just came in by the dozens — some of them in a bed, some on a seat — and we just tried to make room for these folks," said Syed Saquib, who was the chief surgeon on duty.

About five miles away at Sunrise Hospital, 214 patients were treated in three hours — nearly the number typically seen in a day.

Scott Scherr, the director of emergency medicine, got to his hospital about 30 minutes after the attack began, breaking "every traffic law in Las Vegas" along the way.

The scene inside stunned him. He remembers blood pouring off gurneys.

"That moment was shocking, but as soon as that moment passed, I knew I had a job to do," Scherr said. He would end up working 20 straight hours.

Hospital staffers gave each patient red or green triage tags identifying the degree of their injuries. When beds filled up, some of the less injured sat on the floor.

Identifying the most critical wasn't always easy. Bullets can tumble as they pierce a body, meaning that even a patient with a small hole in a shoulder could have a tear in a lung or aorta, too.

"They look okay, but they can turn in a heartbeat," said Huening, the trauma nurse.

The surgeries were back to back and seemingly endless. Anesthesiologist Dean Polce was involved in 27 operations. Twenty-six of the patients lived, he said Tuesday, breaking down as he spoke.

"I wish we could have done more," Polce said, lowering his eyes as he choked up. "Where that bullet goes in the body is really hard to guess."

There weren't enough X-ray machines at times, given the volume. Some supplies ran low. At one point, the emergency room ran out of chest tubes, and staff from nearby MountainView Hospital drove over with a pickup truck full of them.


Certified nursing assistant Jacqueline Rodriguez said she can't forget one patient, clearly very scared, who needed a chest tube inserted quickly.

"I saw the look of terror in her eyes. I said, 'Squeeze my hand, scream, do whatever you need to do. It's going to hurt, but years later, you're going to look back at this, and you're going to be alive.' "


*Sun reported from Washington. Heather Long and Lynh Bui in Las Vegas contributed to this report.*

 **442 Comments**

#### **Tim Craig**

Tim Craig is a national reporter on the America desk. He previously served as head of The Washington Post's Afghanistan-Pakistan bureau, based in Islamabad and Kabul. He has also reported from Iraq, the District and Baltimore. [Follow](#) 

#### **Lena H. Sun**

Lena H. Sun is a national reporter for The Washington Post covering health with a special focus on public health and infectious disease. A longtime reporter at The Post, she has covered the Metro transit system, immigration, education and was a Beijing bureau chief. [Follow](#) 

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Ex. 16  
Page 234

# **EXHIBIT 17**



# Letters

## RESEARCH LETTER

### Lethality of Civilian Active Shooter Incidents With and Without Semiautomatic Rifles in the United States

Semiautomatic rifles have been used in some of the largest active shooter incidents in US history.<sup>1</sup> The weapons were banned in 1994 under the federal assault weapons ban but were reintroduced to the public marketplace in 2004.<sup>2</sup> Currently, there are no comprehensive assessments of injuries from different types of firearms. We compared the number of persons wounded, killed, and either wounded or killed during active shooter incidents with and without semiautomatic rifles.

**Methods** | An active shooter incident is defined by the Federal Bureau of Investigation (FBI) as a situation in which an individual is actively engaged in killing or attempting to kill people in a confined or populated area.<sup>3</sup> The FBI has tracked all active shooter incidents since 2000 and has the most comprehensive data set available.<sup>3</sup> We retrieved active shooter incident characteristics from the publicly accessible FBI database through 2017 (accessed May 18, 2018).<sup>3</sup> For each incident, we extracted shooter age, name, year, location (city and state), number of people wounded, killed, and wounded or killed, place of shooting (commerce, education, government, open space, residences, health care, and house of worship), and type of firearms present (rifle, shotgun, handgun).

The FBI reports do not distinguish whether a rifle was semiautomatic; therefore, for each incident in which the FBI reported that a rifle was present, a media content analysis was performed to identify semiautomatic rifle presence. An a priori search hierarchy was established in which the primary data sources were court and police documents or statements (44.9%; 35 of 78), and secondary data sources were news articles. At least 3 news articles from different media outlets were required to triangulate data. No discrepancies among sources were found. All incidents with the presence of a semiautomatic rifle were classified as semiautomatic rifle incidents regardless of other firearm presence. The Las Vegas, Nevada, shooting, which represented a statistical outlier, and the San Bernardino, California, shooting, which had more than 1 shooter present, were excluded. Negative binomial regression was used to estimate the association between presence of a semiautomatic rifle and the total numbers nonfatally wounded, killed, and either wounded or killed, and the percentage of persons who died if wounded at the incident, controlling for the place and year of shooting and the presence of other firearms. Significance was set at  $P < .05$  (2-sided). Stata version 15.1 was used for analysis.

**Results** | Of the 248 active shooter incidents, 76 involved a rifle, and we identified the type in all instances. A semiautomatic rifle

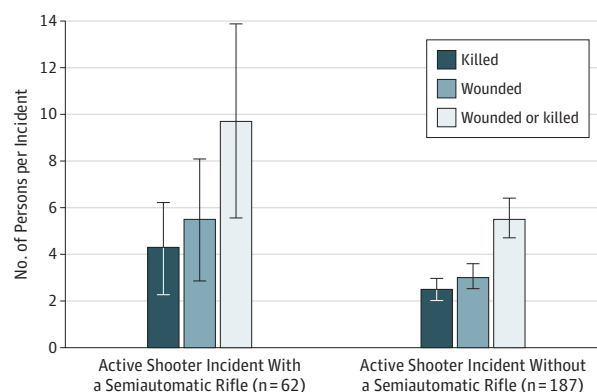
was involved in 24.6% ( $n = 61$ ) of incidents, and 75.4% ( $n = 187$ ) involved handguns ( $n = 154$ ), shotguns ( $n = 38$ ), and non-semiautomatic rifles ( $n = 15$ ). Multiple firearm types were involved in 60.7% ( $n = 37$  of 61) of semiautomatic rifle incidents and 25.1% ( $n = 47$ ) of non-semiautomatic rifle incidents.

There were 898 persons wounded and 718 killed. Active shooter incidents with vs without the presence of a semiautomatic rifle were associated with a higher incidence of persons wounded (unadjusted mean, 5.48 vs 3.02; incidence rate ratio [IRR], 1.81 [95% CI, 1.30-2.53]), killed (mean, 4.25 vs 2.49; IRR, 1.97 [95% CI, 1.38-2.80]), and wounded or killed (mean, 9.72 vs 5.47; IRR, 1.91 [95% CI, 1.46-2.50]) (Figure). The percentage of persons who died if wounded in incidents with a semiautomatic rifle (43.7% [ $n = 259$  of 593]) was similar to the percentage who died in incidents without a semiautomatic rifle (44.9% [ $n = 459$  of 1023]) (IRR, 0.99 [95% CI, 0.60-1.61]).

**Discussion** | Although 44% of persons wounded in active shooter incidents died of their injuries, irrespective of the type of firearm used, more people were wounded and killed in incidents in which semiautomatic rifles were used compared with incidents involving other firearms. Semiautomatic rifles are designed for easy use, can accept large magazines, and fire high-velocity bullets, enabling active shooters to wound and kill more people per incident.<sup>4</sup>

Limitations of this study include the lack of data on specific injuries, demographics, and other details of the incidents. Incidents involving semiautomatic rifles may differ from other incidents in ways that may partially explain the association but could not be controlled (ie, intentionality of the shooter). This lack of data highlights the need for a national centralized database to inform the debate on an assault weapons ban.

**Figure. Unadjusted Mean Number of Victims Injured and Killed per Active Shooter Incident With and Without Semiautomatic Rifles**



The error bars indicate 95% CIs.

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**Acquisition, analysis, or interpretation of data:** All authors.

**Drafting of the manuscript:** De Jager, Goralnick, McCarty, Haider.

**Critical revision of the manuscript for important intellectual content:** De Jager, Goralnick, McCarty, Hashmi, Jarman, Haider.

**Statistical analysis:** Goralnick, McCarty, Hashmi, Jarman, Haider.

**Administrative, technical, or material support:** De Jager, Goralnick, McCarty, Haider.

**Supervision:** Goralnick, Haider.

**Conflict of Interest Disclosures:** All authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Dr Haider reports stock holdings and being cofounder of Patient Doctor Technologies. No other disclosures were reported.

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## COMMENT & RESPONSE

### Antiplatelet Therapy After Coronary Artery Bypass Grafting

**To the Editor** Dr Zhao and colleagues concluded that among patients undergoing elective coronary artery bypass graft (CABG) surgery with saphenous vein grafting, ticagrelor plus aspirin significantly increased graft patency after 1 year vs aspirin alone.<sup>1</sup> However, based on current best evidence and standards of care, the aspirin dosage (100 mg/d) used in this study for the aspirin-alone group may have been suboptimal.<sup>2</sup>

The largest placebo-controlled trial to date in this field was the Veterans Administration Cooperative Study.<sup>3</sup> The aspirin dosage in this trial was 325 mg/d. The 1-year graft occlusion rate in the aspirin-alone group was lower than that noted by Zhao and colleagues (15.8% vs 23.5%). Similarly, a previous meta-analysis of 5 randomized clinical trials suggested that

a medium dosage of aspirin (300-325 mg/d) more successfully reduced graft occlusion within the first year of CABG than low-dosage regimes (50-100 mg/d).<sup>4</sup> In addition, pharmacokinetic studies have shown that an aspirin dose of 100 mg is sufficient to suppress thromboxane synthesis in healthy controls but ineffective at suppressing platelet thromboxane formation in the majority of post-CABG patients.<sup>2,5</sup> This observation reflects the phenomenon of platelet resistance during the post-CABG period, which is believed to be due to the effects of cardiopulmonary bypass and surgical trauma.<sup>2,5</sup> Therefore, current scientific guidelines prefer a higher aspirin dosage (>100 mg/d) early after CABG to improve graft patency.<sup>2</sup>

In the study by Zhao and colleagues, the dosage of aspirin administered in the aspirin alone group may have been suboptimal, which could have confounded their findings by favoring the ticagrelor plus aspirin group. Furthermore, any new therapy must be compared with the currently best available therapy, which was not done in this study.<sup>2</sup> Therefore, the generalizability of these findings is of potential concern.

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**To the Editor** The Different Antiplatelet Therapy Strategy After Coronary Artery Bypass Graft Surgery (DACAB) trial provides needed insight into the utility of dual antiplatelet therapy (DAPT) with ticagrelor as the second agent in patients undergoing CABG.<sup>1</sup> The current American Heart Association and American College of Cardiology (AHA/ACC) guideline is based on limited evidence and restricted to resumption of DAPT in patients who present with acute coronary syndrome. Consequently, intersurgeon variability in DAPT use is high with a relatively low rate of DAPT use.<sup>2</sup>

Several trial characteristics deserve attention in evaluating the clinical applicability of the findings.