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# Extreme risk protection orders, race/ethnicity, and equity: Evidence from California

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#### ABSTRACT

Extreme risk protection orders (ERPOs) provide a civil mechanism to temporarily remove firearm access from individuals at high risk of harming themselves or others. Evidence and theory suggest that ERPOs can prevent firearm-related harm, but the policy's impact on racial/ethnic equity is largely unknown. To examine potential inequities by race/ethnicity in public perceptions and use of California's ERPO law, we drew on two complementary data sources: 1) a 2020 state-representative survey of California adults, and 2) ERPO court documents for the first 3 years of policy implementation (2016-2018). Majorities (54-89%) of all racial/ethnic groups reported that ERPOs are at least sometimes appropriate, and 64-94% were willing to ask a judge for an ERPO for a family member. However, Black and Hispanic/Latinx survey participants less often perceived ERPOs as appropriate and were less willing to serve as petitioners, with Black participants citing lack of knowledge about ERPOs and not trusting the system to be fair as their top reasons for unwillingness. Similarly, review of ERPO court documents revealed that no family or household members served as petitioners for Black and Hispanic/ Latinx ERPO respondents. Additionally, Black respondents were the least likely to have documented access to a firearm and legal representation in court. Racial/ethnic equity in ERPO use may be improved by reducing barriers to petitioning, incorporating non-law enforcement intervention professionals like behavioral health specialists into the ERPO process, providing legal assistance to respondents and petitioners, and investing in the social safety net.

# 1. Introduction

Firearm violence resulted in nearly 45,000 deaths and many more nonfatal injuries in the United States in 2020. (Web-based injury statistics query and reporting system, 2005) The social construction of racial hierarchies as a tool for oppression has created stark racial/ethnic inequities in the burden of firearm-related harm. Black boys and men are >10 times as likely to die by firearm homicide as their white peers, (Web-based injury statistics query and reporting system, 2005) and suicide rates are increasing more rapidly among Black youth than among other young people. (Bray et al., 2021; Lindsey et al., 2019) The spike in firearm purchasing during the coronavirus pandemic, which diversified the population of new firearm owners, along with pandemic-related

disruptions to key social services and worsening community conditions for safety have contributed to increased firearm violence risk, with Black individuals and other minoritized people disproportionately affected. (Miller et al., 2021; Schleimer et al., 2022) There is a clear need to examine firearm violence prevention policies and their use through a racial equity lens.

Extreme risk protection orders (ERPOs)—called gun violence restraining orders (GVROs) in California or, colloquially, "red flag" orders—show promise in preventing firearm violence,(Swanson et al., 2019; Swanson et al., 2017; Kivisto and Phalen, 2018) but their use (or lack thereof) has largely unknown implications for equity. ERPOs are civil restraining orders that temporarily prevent firearm access from individuals at high risk of harming themselves or others with a firearm.

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California's law went into effect in 2016. Sixteen additional states and the District of Columbia have since adopted ERPO laws (Connecticut and Indiana already had similar risk-warrant laws). (Extreme Risk Protection Orders, 2020) Given their popularity among the general public and firearm owners (Barry et al., 2018; Crifasi et al., 2021) and the recent federal legislation providing \$750 million to states for ERPO implementation, (Bipartisan safer communities act, 2022) the number of states with ERPO laws is likely to grow in the near future.

California law enforcement officers can petition a judge for an emergency GVRO, and law enforcement officers, relatives, household members, and—as of September 2020—coworkers and school personnel can petition for a temporary GVRO. Emergency and temporary orders remain in effect for 21 days.(Cal. Penal Code §18100-18205, 2014) Emergency orders are typically issued to officers in the field and served immediately following the precipitating event, while temporary orders are issued to petitioners at the courthouse and are served as quickly as possible thereafter. Upon service, the person subject to the order (the respondent) must temporarily give their firearms and ammunition to law enforcement or a licensed firearm dealer. Respondents are prohibited from purchasing firearms and ammunition while the order is in effect. Within 21 days of the issuance of an emergency or temporary order, a hearing is held (at which the respondent has the right to appear), and a judge rules on an "order after a hearing," which lasts for 1 year (up to 5 years as of September 2020) and may be terminated early or renewed by a judge.

Risk-based temporary firearm removal laws like ERPOs have been found to be particularly effective at preventing firearm suicide among respondents (Swanson et al., 2019; Swanson et al., 2017) and have been used in efforts to prevent mass shootings. (Wintemute et al., 2019; Pear et al., 2022) It is less clear whether these and other potential benefits—as well as potential adverse effects—are distributed equitably across racial/ethnic groups. Given past and contemporary criminal legal system practices that have perpetuated racist policies and reified racialized stereotypes about criminality, (Alexander, 2010; Nembhard and Robin, 2021) there is prima facie reason for concern about whether ERPOs may be used to further punish and control, rather than protect, Black individuals and members of other marginalized communities.

Early evidence also raises important concerns about equitable ERPO implementation. For example, several states have reported that most petitioners are law enforcement officers, even when others may petition. (Pallin et al., 2020; Zeoli et al., 2021; Rowhani-Rahbar et al., 2020) To the extent that members of minoritized and marginalized communities are less inclined to engage law enforcement due to structural racism and other oppressive systems of power that increase the likelihood of police killings, excessive use of force, and other consequences, (Braga et al., 2019; Degue et al., 2016) ERPOs may be underutilized and their benefits unrealized in these communities. Given that officers' behavior is discretionary and potentially impacted by racial stereotypes, underuse could also result from officers disproportionately electing to arrest minoritized individuals instead of petitioning for an ERPO. Alternatively, overuse in minoritized communities could reflect the fact that these communities are systematically subject to disproportionate policeinitiated contact and over-policing, regardless of actual crime rates. (Braga et al., 2019)

There may also be racial/ethnic differences in outcomes for respondents. As noted above, racialized perceptions of dangerousness rooted in racism and structural inequities that concentrate disadvantage in minoritized communities may lead to higher rates of arrest at the time of ERPO service for nonviolent, discretionary charges or use of force against Black and brown respondents, making the ERPO punitive and potentially dangerous rather than preventive.(Pear et al., 2021; Pallin et al., 2021) Arrests at the time of ERPO service are most likely related to the precipitating event, but could also be for unrelated parole violations or outstanding warrants, which are themselves more prevalent among people racialized as Black due to the historical and structural forces mentioned above.

Firearm violence prevention stakeholders have called for ERPO research to include racial/ethnic inequities as outcomes.(Swanson, 2020) We examined the intersection of race/ethnicity with perceptions and use of California's GVRO law² by evaluating racial/ethnic differences in (1) public awareness of and support for GVROs, and (2) GVRO case contexts and process details. We used a novel combination of complementary data sources: (1) a state-representative survey conducted in July 2020 among California adults, and (2) GVRO court case files for the first 3 years of policy implementation (2016–2018). Together, these data provide a more complete picture of potential sources of inequity throughout the GVRO process than either could alone—from awareness and support among potential petitioners to policy use and implications for respondents. Findings from this study can inform researchers, advocates, policymakers, and those seeking to address racial/ethnic inequities in the legal system.

#### 2. Methods

#### 2.1. Public awareness of and support for GVROs

#### 2.1.1. Data source

We obtained data about public awareness and policy support from the 2020 California Safety and Wellbeing Survey (CSaWS 2020), a statewide survey administered online in English and Spanish from July 14-27, 2020. Survey participants (hereafter "participants") were members of the Ipsos KnowledgePanel, a national, probability-based online research panel widely used in injury and health research.(Pallin et al., 2019; Betz et al., 2020; Betz et al., 2016; Pham-Kanter et al., 2017) All panel members who were 18 years and older and residents of California households were eligible to participate. Of 5018 members invited to participate, 2870 (57%) completed the survey. Participants tended to be older, more often male and non-Hispanic, and to have more years of education and higher income than non-participants. The analytic sample was weighted to be statistically representative of the noninstitutionalized adult population of California, as reflected in the 2014-2018 American Community Survey. Additional survey methodology is described elsewhere.(Kravitz-Wirtz et al., 2021a)

# 2.1.2. Measures

Participants were asked whether they had ever heard of a "gun violence restraining order" and, subsequently, a "red flag law." Next, they read a short description of California's GVRO law and were asked, "In general, do you think it would be appropriate for a judge to issue a GVRO" in five different risk scenarios: when a person (1) is experiencing an emotional crisis, (2) has severe dementia or something like it, or has threatened to physically hurt: (3) themselves, (4) the participant or someone else, or (5) a group of people. Those who answered "don't know" were asked whether this was because they needed more information about GVROs

Participants were then asked, "Would <u>you personally</u> be willing to ask a judge for a GVRO if a member of your family" was in each of the five risk scenarios. Those who reported being "not at all" willing were asked to select one or more reasons for their unwillingness. Subsequent items included whether participants "would prefer to have the police ask a judge for a GVRO for [them]." Complete questions and response options appear in Appendix 1.

Participants' sociodemographic information was collected as part of panel membership. Race/ethnicity was categorized using responses to two questions: "Are you Spanish, Hispanic, or Latino?" (hereafter "Hispanic/Latinx") and then, "Please indicate what you consider your race to be" from one or more of the following US Census Bureau

 $<sup>^2</sup>$  We denote general extreme risk protection order policies with "ERPO" and California's version of this policy, the gun violence restraining order, with "GVRO" throughout.

categories: White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander. To maintain sufficient sample size and for comparability with GVRO case data (described below), we combined participants who did not endorse Hispanic/Latinx ethnicity and who selected American Indian or Alaska Native (n=10), Native Hawaiian or other Pacific Islander (n=2), or more than one race (n=59) into a non-Hispanic other/multi-race category (hereafter "Other"). Urban-rural status was based on participants' county of residence using 2013 Rural-Urban Continuum Codes (RUCC).(Rural-Urban Continuum Codes: Documentation, 2020)

# 2.1.3. Statistical analysis

We used survey-weighted percentages and 95% confidence intervals (CIs) to tabulate each measure by participants' race/ethnicity. Consistent with prior research,(Kravitz-Wirtz et al., 2021b) we combined the "somewhat" and "very" response options for questions about willingness, and we combined the "sometimes," "usually," and "always" response options for questions about appropriateness.

#### 2.2. GVRO use

#### 2.2.1. Data sources

The California Department of Justice (CA DOJ) provided identified information on all GVRO respondents from 2016 to 2018, which we used to request GVRO court records from individual county courts. We used Microsoft Forms to abstract basic case information, such as GVRO type and duration, and Dedoose 9.0.17 to abstract details from the case narratives according to an abstraction guide (Appendix 2). Abstractors met with each other and other team members at standing weekly team meetings throughout the course of analysis to clarify definitions, resolve discrepancies, and make refinements to the final abstraction guide. Two abstractors double-coded all basic case information and blindly double-coded and cross-checked a 20% random sample of case narratives, adjudicating any differences at the standing team meetings. After consensus was reached on this subsample, abstractors single-coded the remaining narratives

#### 2.2.2. Measures

We abstracted information from GVRO court case files on respondent demographics and risk factors for violence (identified a priori based on the literature and theory), case contexts (e.g., details of the precipitating event), and GVRO process details (e.g., hearing outcomes). Respondent race/ethnicity was derived from the GVRO petition and therefore reported by the petitioner (although law enforcement petitioners may obtain race/ethnicity from respondents' state identification, which is self-reported). To maintain adequate cell size, we categorized race/ethnicity as non-Hispanic white, non-Hispanic Black, Hispanic/Latinx, and non-Hispanic Other. Respondents were linked to the RUCC category for the county in which they were issued a GVRO.

To determine whether recovered firearms might have been unlawfully acquired, we noted when court documents indicated that law enforcement officers were unaware of a respondent owning a given firearm prior to its recovery because the firearm was not recorded in the California Law Enforcement Telecommunications System (CLETS). Officers can use CLETS to access records of legal firearm purchases since 1996, although long gun sales were not required to be recorded until 2014. Recovered firearms, particularly handguns, not found in CLETS may have been acquired unlawfully. To determine whether any known firearms were not recovered, we used the court documents to compare the description and number of firearms the respondent was expected to own with the description and number of firearms recovered. For law enforcement petitioners, we assumed CLETS was the primary source of information on firearms owned by the respondent, even if this was not stated explicitly.

#### 2.2.3. Statistical analysis

We used descriptive statistics, stratified by race/ethnicity. Estimates should generally be interpreted as the statistical floor because (1) respondents with missing information were retained in the denominator for percentages, and (2) we relied on petitioners' narratives to determine whether a respondent characteristic or case detail was present or absent. Because petitioners had incomplete knowledge and differed with respect to what they included in the narratives, we were often unable to distinguish between missing information and true negatives when codes were not applied. Details on missingness are presented in Appendix Table 1.

Analyses for both data sources were conducted in Stata 15.1 and R 4.0.2.(R Core Team. R, 2022) The University of California, Davis Institutional Review Board approved this study.

#### 3. Results

#### 3.1. Public awareness and support for GVROs

The CSaWS 2020 sample, which was representative of the adult population of California, was 14.4% Asian (95% CI 12.4–16.8); 5.8% Black (95% CI 4.6–7.3); 34.7% Hispanic/Latinx (95% CI 32.0–37.4); 41.9% white (95% CI 39.3–44.6); and 3.2% Other race (95% CI 2.3–4.5) (Table 1).

#### 3.1.1. Awareness

Most survey participants had never heard of a GVRO or red flag law (Table 2). A greater percentage of Black and Asian participants were unaware of the policy compared with white and Hispanic/Latinx participants: 77.1% of Black (95% CI 65.9–85.4) and 79.2% of Asian participants (95% CI 72.0–84.9) had never heard of a GVRO or red flag law, compared with 62.9% of white (95% CI 59.4–66.3) and 61.1% of Hispanic/Latinx participants (95% CI 56.1–65.9).

**Table 1**Demographic Characteristics by Race/Ethnicity.

Demographic characteristic <sup>a</sup>	CSaWS 2020 sample ( $n = 2870$ ) Unweighted $n$ (weighted %) [95% CI]	GVRO respondents 2016–2018 (n = 193) n (%)
Asian, non-Hispanic	208 (14.4) [12.4–16.8]	_c
Male	110 (54.4) [45.6–62.4]	-
Age	44 (33, 57)	-
Urban	186 (91.1) [85.2–94.8]	-
Black, non-Hispanic	127 (5.8) [4.6–7.3]	20 (10.4)
Male	67 (54.2) [42.2–65.7]	15 (75.0)
Age <sup>b</sup>	52 (37, 60)	36 (28, 50)
Urban	106 (76.3) [63.7-85.6]	16 (80.0)
Hispanic/Latinx	849 (34.7) [32.0-37.4]	35 (18.1)
Male	461 (46.9) [41.9–51.9]	35 (100)
Age	42 (32, 51)	33 (27, 37)
Urban	627 (74.9) [70.4–78.9]	31 (88.6)
Other, non-Hispanic <sup>d</sup>	71 (3.2) [2.3–4.5]	15 (7.8)
Male	132 (42.6) [26.8-60.1]	15 (100)
Age	36 (25,56)	36 (27, 45)
Urban	58 (88.3) [77.6–94.3]	8 (53.3)
White, non-Hispanic	1615 (41.9) [39.3-44.6]	123 (63.7)
Male	836 (45.8) [42.0-49.5]	116 (94.3)
Age	55 (36, 68)	45 (30, 55)
Urban	1169 (72.8) [69.3-76.0]	89 (72.4)

a. Age is displayed as median (IQR). Urban is defined as counties classified as metropolitan areas with at least 1,000,000 people (Code 1) by the Rural-Urban Continuum Code, 2013.

b. One GVRO respondent is missing age.

c. Asian respondents are included in the Other race category to maintain adequate cell size. Two-thirds of other race respondents are Asian.

d. Multi-race individuals are included in the Other race group. This group is not directly comparable between CSaWS 2020 and GVRO respondents.

**Table 2** Awareness of Gun Violence Restraining Orders (GVROs) and "Red Flag" Laws Among California Adults, by Race/Ethnicity, 2020 California Safety and Wellbeing Survey (n = 2870).

	Race/ethnicity, unweighted n (weighted %) [95% CI]				
	Asian, non- Hispanic	Black, non- Hispanic	Hispanic/ Latinx	Other, non- Hispanic	White, non- Hispanic
Heard of neither Heard of GVRO	159 (79.2) [72.0, 84.9] 25 (10.1) [6.3, 15.7]	93 (77.1) [65.9, 85.4] 14 (8.0) [4.0,	514 (61.1) [56.1, 65.9] 160 (18.6) [15.0, 22.8]	43 (66.5) [49.5, 80.0] 10 (13.9) [5.2,	879 (62.9) [59.4, 66.3] 252 (11.6) [9.7, 13.8]
only Heard of red flag law only	8 (3.5) [1.7, 7.2)	15.3] 7 (8.3) [3.1, 20.7]	73 (9.2) [6.7, 12.87]	32.4] 5 (4.7) [1.7, 12.2]	180 (10.5) [8.7, 12.7]
Heard of both	15 (6.9) [3.6, 12.7]	13 (6.6.) [3.5, 12.2]	92 (9.5) [6.9, 13.0]	12 (12.8) [6.2, 24.4]	295 (14.2) [11.9, 16.8]

Note. Results do not sum to total due to refusals.

# 3.1.2. Perceived appropriateness

Across all risk scenarios, a majority of participants in all racial/ethnic groups supported GVRO use at least some of the time, with Black and Hispanic/Latinx participants relatively less supportive than others (Table 3). For example, Black participants reported GVROs were at least sometimes appropriate 53.7% (95% CI 41.5–65.5) to 63.4% (95% CI 50.6–74.6) of the time, depending on the scenario; white participants said GVROs were at least sometimes appropriate 79.0% (95% CI 75.8–82.0) to 87.6% (95% CI 84.6–90.1) of the time.

Among those who said they did not know whether GVROs were appropriate in at least one scenario, Hispanic/Latinx participants most often (60.1%, 95% CI 49.8–69.6) and white participants least often (34.4%, 95% CI 25.2–44.8) cited a need for more information about GVROs as the reason for their uncertainty (Appendix Table 2).

#### 3.1.3. Personal willingness

In all risk scenarios, most participants in all racial/ethnic groups reported being somewhat or very willing to personally ask a judge for a GVRO for a family member. Black participants were consistently the least willing, and Hispanic/Latinx participants were less willing than white participants in 4 of 5 scenarios (Table 4). Black participants were most likely to say they were not at all willing to ask a judge for a GVRO in all 5 risk scenarios (23.2%, 95% CI 14.0–36.1) (Appendix Table 3) and substantially less likely to say they preferred to have the police petition for a GVRO for them (21.0%, 95% CI 13.4–31.3) compared with other racial/ethnic groups (32.9% [95% CI 28.5–37.7] to 44.0% [95% CI 27.7–61.8]; Appendix Table 4).

Among participants who reported being not at all willing to ask a judge for a GVRO in 1 or more risk scenarios, the most frequently cited reason among Asian, Black, Hispanic/Latinx, and white participants was not knowing enough about GVROs (Fig. 1). For Other race participants, the most common reason was concern about due process rights. The second most common reason among Black participants was not trusting the system to be fair and, for all other groups, a belief that the given risk scenarios involve personal or family matters.

# 3.2. GVRO use

From 2016 through 2018, there were 413 unique GVRO respondents in California. We requested court documents for all respondents and received them for 218 (53%). Almost all (94.4%) cases for which documents were not received involved emergency orders only, which are granted to law enforcement officers in the field and are not always filed with the court. We abstracted records for 201 respondents; the

**Table 3** Perceived Appropriateness of a Judge Issuing a Gun Violence Restraining Order (GVRO), in General, by Risk Scenario and Race/Ethnicity, 2020 California Safety and Wellbeing Survey (n = 2870).

	Never appropr	iate	Sometimes/us appropriate	ually/always
	Unweighted n	Weighted % [95% CI]	Unweighted n	Weighted % [95% CI]
Person experie	encing an emotion	nal crisis		
Asian, non-	18	10.7	162	75.1
Hispanic		[6.3,17.6]		[66.9,81.9]
Black, non-	16	15.2	88	57.2
Hispanic		[8.1,26.9]		[44.7,69.0]
Hispanic/	111	13.8	581	65.8
Latinx		[10.8,17.6]		[60.9,70.4]
Other, non-	5	4.7 [1.4,15.2]	59	89.1
Hispanic		- / -		[77.9,95.0]
White, non-	146	10.0	1313	79.0
Hispanic		[7.9,12.4]		[75.8,82.0]
Person has sev	vere dementia or s	something like it		
Asian, non-	21	10.5	158	75.9
Hispanic	==	[6.2,17.3]	===	[67.7,82.5]
Black, non-	20	15.7	82	53.7
Hispanic		[9.0,26.0]	J_	[41.5,65.5]
Hispanic/	130	17.7	573	63.0
Latinx	100	[14.2,22.0]	373	[58.0,67.7]
Other, non-	8	8.4 [3.0,21.3]	58	88.1
Hispanic	O	0.4 [5.0,21.5]	30	[75.7,94.6]
White, non-	107	8.0 [6.0,10.5]	1382	81.6
Hispanic	107	0.0 [0.0,10.0]	1302	[78.1,84.6]
Person threate	ened to physically	hurt themselves		
Asian, non-	20	11.8	168	78.2
Hispanic		[7.2,18.8]		[70.1,84.5]
Black, non-	19	18.3	93	63.4
Hispanic		[10.2,30.5]		[50.6,74.6]
Hispanic/	112	16.6	629	68.9
Latinx		[13.0,20.8]		[64.0,73.4]
Other, non-	5	4.7 [1.4,15.2]	60	86.6
Hispanic				[73.3,93.8]
White, non-	79	6.3 [4.6,8.6]	1446	86.4
Hispanic				[83.3,89.0]
Person threate	ened to physically	hurt someone else		
Asian, non-	19	10.7 [6.4,	170	77.9
Hispanic		17.5]		[69.6,84.5]
Black, non-	18	16.7	92	60.6
Hispanic		[9.4,27.9]		[47.8,72.1]
Hispanic/	118	17.7	627	68.7
Latinx		[14.0,22.0]		[63.8,73.2]
Other, non-	6	5.5 [1.8,15.6]	59	88.1
Hispanic				[76.7,94.3]
White, non-	74	5.9 [4.3,8.1]	1465	87.6
Hispanic				[84.6,90.1]
Person threate	ened to physically	hurt a group of pe	eople	
Asian, non-	19	10.4	170	79.6
Hispanic		[6.1,17.0]		[71.7,85.8]
Black, non-	20	20.8	93	63.5
Hispanic	20	[12.1,33.4]	,,,	[50.7,74.7]
-	116		631	
Hispanic/ Latinx	110	17.8	031	69.8
Other, non-	7	[14.1,22.2]	50	[64.9,74.2]
	7	5.7 [1.9,15.7]	58	85.6
Hispanic	76	6 4 [4 7 0 7]	1469	[72.4,93.1]
White, non- Hispanic	76	6.4 [4.7,8.7]	1463	86.7
Highanic				[83.5,89.4]

Note. Results do not sum to total due to "don't know" responses and refusals.

remaining 17 case files did not include GVRO documents. Eight respondents missing information on race/ethnicity were dropped, leaving 193 unique respondents (194 GVRO cases).

**Table 4** Willingness to Ask a Judge for a Gun Violence Restraining Order (GVRO) for a Family Member, by Risk Scenario and Race/Ethnicity, 2020 California Safety and Wellbeing Survey (n = 2870).

	Not at all willing		Somewhat/very willing		
	Not at all willing	ng	Somewnat/ver	y willing	
	Unweighted	Weighted %	Unweighted	Weighted %	
	n	[95% CI]	n	[95% CI]	
Family member	r evneriencing an	emotional crisis			
Asian, non-	42	23.0	163	75.7	
Hispanic		[16.4,31.3]		[67.3,82.4]	
Black, non-	34	34.8	92	64.1	
Hispanic		[24.0,47.5]		[51.5,75.0]	
Hispanic/	185	22.9	641	73.3	
Latinx		[18.8,27.5]		[68.5,77.7]	
Other, non-	13	19.5	57	79.4	
Hispanic		[9.2,36.9]		[62.2,90.0]	
White, non-	377	25.1	1215	72.9	
Hispanic		[21.8,28.6]		[69.3,76.3]	
-					
Formiles months			liles is		
-		entia or something		75.1	
Asian, non-	44	23.5	160	75.1	
Hispanic	30	[16.7,32.0] 30.7	96	[66.6,82.0]	
Black, non-	30		90	68.1	
Hispanic Hispanic/	176	[20.4,43.5] 21.4	647	[55.4,78.6] 74.0	
Latinx	170	[17.6,25.8]	047	[69.2,78.2]	
Other, non-	11	14.4	59	84.6	
Hispanic	11	[6.7,28.3]	37	[70.7,95.6]	
White, non-	254	18.0	1328	79.5	
Hispanic	254	[15.1,21.4]	1320	[76.1,82.6]	
mapanic		[13.1,21.7]		[70.1,02.0]	
		hysically hurt them			
Asian, non-	25	13.7	178	84.6	
Hispanic		[8.6,20.9]		[77.3,89.8]	
Black, non-	22	25.6	104	73.2	
Hispanic		[16.1,38.3]		[60.6,82.9]	
Hispanic/	134	19.1	689	76.0	
Latinx		[15.3,23.6]		[71.2,80.2]	
Other, non-	4	4.9 [1.5,15.3]	66	94.4	
Hispanic	100	0.6 [7.410.0]	1.456	[83.9,98.0]	
White, non-	133	9.6 [7.4,12.2]	1456	88.3	
Hispanic				[85.5,90.7]	
Family member	r threatened to p	hysically hurt you	or someone else		
Asian, non-	24	13.2	181	85.5	
Hispanic		[8.3,20.4]		[78.2,90.6]	
Black, non-	19	23.5	107	75.4	
Hispanic		[14.2,36.3]		[62.6,84.9]	
Hispanic/	119	17.3	707	78.3	
Latinx		[13.6,21.7]		[73.6,82.4]	
Other, non-	3	4.5 [1.2,15.3]	67	94.4	
Hispanic				[84.1,98.2]	
White, non-	115	9.5 [7.3,12.3]	1467	88.1	
Hispanic				[85.1,90.5]	
Family member	r threatened to p	hysically hurt a gro	oup of people		
Asian, non-	27	15.5	178	83.2	
Hispanic		[10.1,22.9]		[75.7,88.7]	
Black, non-	19	23.5	107	75.4	
Hispanic		[14.2,36.3]		[62.6,84.9]	
Hispanic/	120	17.6	705	78.0	
Latinx		[13.9,22.1]		[73.3,82.1]	
Other, non-	3	4.5 [1.2,15.3]	67	94.4	
Hispanic				[84.1,98.2]	
White, non-	115	9.2 [7.0,12.0]	1476	88.7	
Hispanic				[85.7,91.1]	

Note. Results do not sum to total due to refusals.

#### 3.2.1. Respondent demographics

The demographic characteristics of GVRO respondents differed in several ways from the adult population of California as reflected by the CSaWS 2020 sample (Table 1). Most respondents were identified as white (63.7%), followed by Hispanic/Latinx (18.1%), Black (10.4%) and

Other races (7.8%). Two-thirds of Other race respondents were Asian. Respondents were predominately male in all groups. Median age was highest for white respondents (45 years, IQR: 30–55), with all other groups having a median age about 10 years younger. Most respondents lived in large metropolitan counties, ranging from 72.4% (white and Other race respondents) to 88.6% (Hispanic/Latinx respondents).

# 3.2.2. Case contexts

Across all racial/ethnic groups, the precipitating event leading to the GVRO most often involved threats of harm exclusively to others and least often involved threats of harm exclusively to self (Table 5). Black respondents had the highest proportion of cases involving exclusively other-directed threats (75.0%) and white respondents had the lowest (49.2%). Conversely, white respondents had the highest proportion of exclusively self-directed threats (16.9%) and Black respondents had the lowest (5.0%). Among cases involving threats to others (alone or in combination with self-directed threats), intimate partners were a common target, ranging from 16.7% for Black respondents to 41.4% for Hispanic/Latinx respondents. GVROs involving a potential mass shooting (i.e., a threat to shoot an unspecified number of people or 3+ people other than oneself) were noted in 50.0% of cases involving Black respondents—roughly twice the proportion as Hispanic/Latinx (22.9%) and white (26.6%) respondents.

Reports of threatening behavior with a firearm were most common for Hispanic/Latinx respondents (42.9%) and least common for Other race respondents (26.7%; Table 5). Access to firearms (via ownership or other means) was most prevalent among Hispanic/Latinx and white respondents (94.3% and 92.7%, respectively). Conversely, 25.0% of Black respondents had no known access to firearms—the highest proportion among all racial/ethnic groups.

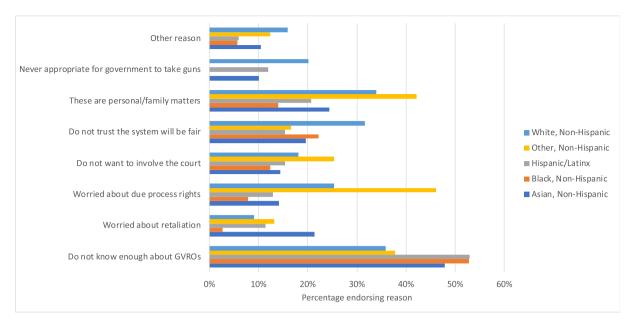
The most commonly reported risk factor for violence among white respondents was substance use (including alcohol), present in 40.3% of cases (Table 5). For all other racial/ethnic groups, loss of a loved one or relationship problems was most common, ranging from 30.0% among Black respondents to 45.7% among Hispanic/Latinx respondents. Signs of paranoia, psychosis, or hallucinations were noted about twice as often for Black respondents (20.0%) as for others (Table 5). Cases involving Black respondents also had elevated proportions of law enforcement contact originally initiated for mental health concerns and of petitioners drawing on bystander/witness statements (Appendix Table 5 and Table 6). White respondents were the only group with a record of previous or current restraining orders, excluding GVROs (8.9%; Table 5).

# 3.2.3. Process details

The overwhelming majority of petitioners were law enforcement officers, regardless of respondent race/ethnicity, and no family or household member served as the petitioner for a Black or Hispanic/Latinx respondent (Table 6). Black and Hispanic/Latinx respondents were the most likely to be arrested at the time of ERPO service (40.0% and 42.9%, respectively), although racial/ethnic differences in arrest narrowed when cases with self-harm threats alone were removed (Appendix Table 6). Reports of police use of force were uncommon, ranging from 0.0% for Other race respondents to 5.6% for white respondents.

Firearms were recovered in 40.0% of cases with Other race respondents to 58.9% of cases with white respondents. Firearms recovered from Black respondents were unrecorded in CLETS more often than those recovered from other respondents (54.5% vs. 15.8–21.9%). When limited to cases in which only handguns were recovered (n = 40), 33.3% of cases among both Black and Hispanic, 21.7% of cases among white, and 0.0% of cases among Other race respondents included firearms unrecorded in CLETS.

One-year orders after a hearing were issued most often among Hispanic/Latinx and Other race respondents (60.0% each) and least often among Black respondents (40.0%; Table 6). In 45.0% of cases involving Black respondents, an order after a hearing was not sought. Among those with an order after a hearing, Black respondents never had legal



**Fig. 1.** Reasons Not at All Willing to Ask a Judge for a Gun Violence Restraining Order (GVRO) for a Family Member Among Those Not at All Willing in at Least 1 Scenario, by Race/Ethnicity, 2020 California Safety and Wellbeing Survey (*n* = 799). Note. Participants could select >1 reason.

representation whereas white respondents had representation in 24.2% of cases

#### 4. Discussion

We used complementary data sources—a state-representative survey of California adults in 2020 and GVRO court case files from 2016 through 2018—to provide novel demographic and situational insights about who is likely to endorse and use ERPOs as a violence prevention tool and who may experience their potential benefits and harms. We found some racial/ethnic differences in perceptions and use of GVROs in California, which could point to deeper inequities.

Consistent with prior research and polling, (Barry et al., 2018; Crifasi et al., 2021; Quinnipiace University Poll, 2021; APM Research Lab, 2019) our survey results show that large majorities of the general population—across all racial and ethnic groups—consider GVROs appropriate and would be willing to personally use them. Well over half of Californians (54–89%) report that GVROs are appropriate, and 64–94% would be willing to ask a judge for a GVRO for a family member, depending on participants' race/ethnicity and the scenario presented. Despite this high level of support, Hispanic/Latinx and especially Black Californians perceived GVROs as less appropriate and were less willing to act as petitioners for a family member compared with most other groups. Black survey participants were also least likely to say they preferred to have the police petition for a GVRO on their behalf: approximately 20% of Black survey participants preferred to have police petition for a GVRO, compared with 33–44% of other groups.

These findings align with those from a nationally-representative survey that found that Black Americans (66%) were significantly less likely than white Americans (77%) to support ERPO policies that authorize law enforcement officers to temporarily remove firearms during periods of heightened risk.(Crifasi et al., 2021) However, that study found no differences in support for provisions allowing family members to petition the court to remove firearms in these situations. Discrepancies between our findings and this prior study in terms of support for family petitioners may be because we asked about *personal* willingness and specific risk scenarios.

GVRO case documents reinforced and extended our survey findings in several ways. For example, no Black or Hispanic/Latinx respondents

had family or household members act as petitioners. In addition, Black respondents had the lowest proportion of cases in which a family or household member or significant other was the source of information to petitioners (35%) (who were overwhelmingly law enforcement officers for all racial/ethnic groups) and the highest proportion in which a bystander/witness was the source of information (30%). Together, these findings suggest that family or household members of Black and Hispanic/Latinx individuals at risk for violence are more hesitant than others to engage with the courts by petitioning for an ERPO or with police who might act as petitioners on their behalf. Such hesitance may also be manifest in the low proportion of cases among Black respondents involving threats of self-harm (of which family and household members may be the most acutely aware) and the high proportion of mass shooting threats (which may come to the attention of bystanders).

To ensure that ERPOs do not reproduce inequities in structurallyrooted risks for firearm violence and trauma, stakeholders need to better understand and address sources of racial/ethnic differences in support for and willingness to use ERPOs. For almost all racial/ethnic groups surveyed, the most common reason cited for unwillingness to petition for a GVRO was not knowing enough about them. Among Asian, Black, and Hispanic/Latinx participants, this was by far the most common reason, cited by approximately 50% of those unwilling. Prior research has similarly found that lack of knowledge of ERPOs is a barrier to use among potential petitioners (e.g., law enforcement in California and physicians in Maryland). (Pear et al., 2021; Frattaroli et al., 2019) Engaging public health professionals, community-based organizations, and other frontline providers in educational and evaluation efforts could help remedy this gap in knowledge and empower community members to share information about ERPOs and participate in improving the policy themselves. Culturally affirming communication from trusted messengers may reduce stigma and perceptions that risk is a private or family matter, another common reason for unwillingness to use GVROs among survey participants. Growing research highlights the importance of such strategies for firearm violence prevention. (Wical et al., 2020; Henn et al., 2019) For these efforts to succeed, impacted communities will need to be involved in all aspects of policymaking and implementation.

In addition to educational interventions to promote policy awareness, our results suggest a need for institutional and structural reforms.

**Table 5** Contextual Features of GVRO Cases, by Race/Ethnicity (n = 194).

	GVRO cases, n (%)				
	Black,	Hispanic/	Other,	White,	
	non-	Latinx	non-	non-	
	Hispanic	(n = 35)	Hispanic	Hispanic	
	(n = 20)		(n = 15)	$(n=124)^a$	
Target of harm					
Others only	15 (75.0)	21 (60.0)	8 (53.3)	61 (49.2)	
Self only	1 (5.0)	5 (14.3)	2 (13.3)	21 (16.9)	
Self & others	3 (15.0)	8 (22.9)	3 (20.0)	36 (29.0)	
Other-directed target	(n = 18)	(n = 29)	(n = 11)	(n = 97)	
details (among those					
with other-directed					
target) <sup>b</sup>	0 (1( 7)	10 (41 4)	4 (0( 4)	07 (07 0)	
Intimate partner	3 (16.7)	12 (41.4)	4 (36.4)	27 (27.8)	
Random people	4 (22.2)	8 (27.6)	3 (27.3)	21 (21.6)	
Other family member Workplace/Someone at	3 (16.7) 1 (5.6)	8 (27.6) 5 (17.2)	3 (27.3) 1 (9.1)	19 (19.6)	
work	1 (3.0)	3 (17.2)	1 (9.1)	10 (10.3)	
School/Someone at	1 (5.6)	2 (6.9)	2 (18.2)	9 (9.3)	
school	1 (0.0)	2 (0.5)	2 (10.2)	, (3.0)	
Other specific person	8 (44.4)	8 (27.6)	3 (27.3)	36 (37.1)	
Potential mass shooting <sup>c</sup>	, ,	, ,	, ,	, ,	
Yes	10 (50.0)	8 (22.9)	6 (40.0)	33 (26.6)	
No	10 (50.0)	26 (74.3)	7 (46.7)	86 (69.4)	
Threat type <sup>b</sup>					
Threatening behavior	9 (45.0)	21 (60.0)	5 (33.3)	74 (59.7)	
with a firearm	6 (30.0)	15 (42.9)	4 (26.7)	42 (33.9)	
without a weapon	4 (20.0)	7 (20.0)	1 (6.7)	29 (23.4)	
with another weapon	0 (0.0)	2 (5.7)	0 (0.0)	11 (8.9)	
Verbal threat	9 (45.0)	20 (57.1)	8 (53.3)	62 (50.0)	
Written threat	3 (15.0)	6 (17.1)	2 (13.3)	23 (18.5)	
Other	1 (5.0)	0 (0.0)	1 (6.7)	1 (0.8)	
Firearm access	12 (65 0)	22 (04.2)	10 (66 7)	107 (96 2)	
Access, owner Access, not owner	13 (65.0) 1 (5.0)	33 (94.3) 0 (0.0)	10 (66.7) 0 (0.0)	107 (86.3) 8 (6.5)	
Purchased, in waiting	0 (0.0)	2 (5.7)	0 (0.0)	2 (1.6)	
period	0 (0.0)	2 (3.7)	0 (0.0)	2 (1.0)	
Intends to purchase	0 (0.0)	0 (0.0)	1 (6.7)	1 (0.8)	
No known access	5 (25.0)	0 (0.0)	2 (13.3)	5 (4.0)	
Risk factorsb,d					
Any of the following	13 (65.0)	28 (80.0)	8 (53.3)	98 (79.0)	
Prior self-directed	1 (5.0)	2 (5.7)	1 (6.7)	7 (5.6)	
violence					
Prior intimate partner	2 (10.0)	3 (8.6)	2 (13.3)	13 (10.5)	
violence (IPV)					
Prior assault (not IPV)	2 (10.0)	1 (2.9)	0 (0.0)	9 (7.3)	
Substance use	2 (10.0)	15 (42.9)	1 (6.7)	50 (40.3)	
Mental illness (named	3 (15.0)	7 (20.0)	2 (13.3)	27 (21.8)	
diagnosis)	4 (00.0)	4 (11 4)	1 (( 7)	10 (10 5)	
Signs of paranoia/	4 (20.0)	4 (11.4)	1 (6.7)	13 (10.5)	
psychosis/ hallucination					
Employment instability	2 (10.0)	6 (17.1)	1 (6.7)	13 (10.5)	
Housing instability	1 (5.0)	2 (5.7)	0 (0.0)	4 (3.2)	
Loss/relationship	6 (30.0)	16 (45.7)	5 (33.3)	28 (22.6)	
problems	- ()	(.0., )	- (-5.0)	(,	
Prior police contact	3 (15.0)	9 (25.7)	2 (13.3)	27 (21.8)	
with arrest <sup>e</sup>	,		,		
Prior police contact	3 (15.0)	5 (14.3)	1 (6.7)	19 (15.3)	
without arrest/charges	•	-	-		
Current or prior	0 (0.0)	0 (0.0)	0 (0.0)	11 (8.9)	
restraining/protective					
orders					

a. 123 unique respondents; one respondent had 2 distinct GVROs.

**Table 6** GVRO Process Details by Race/Ethnicity (n = 194).

	GVRO cases,	n (%)		
	Black, non- Hispanic (n = 20)	Hispanic/ Latinx (n = 35)	Other, non-Hispanic $(n = 15)$	White, non- Hispanic $(n = 124)^a$
Petitioner type				
Law enforcement Family member	20 (100) 0 (0.0)	35 (100) 0 (0.0)	13 (86.7) 2 (13.3)	119 (96.0) 5 (4.0)
Source of information to GVRO				
petitioners <sup>b</sup> Respondent	10 (50.0)	17 (48.6)	7 (46.7)	63 (50.8)
Family or	5 (25.0)	9 (25.7)	6 (40.0)	43 (34.7)
household member	0 (15.0)	15 (40.0)	0 (00 0)	0.4 (07.4)
Significant other	3 (15.0)	15 (42.9)	3 (20.0)	34 (27.4)
Bystander/witness	6 (30.0)	7 (20.0)	1 (6.7)	27 (21.8)
Law enforcement (not including	4 (20.0)	6 (17.1)	2 (13.3)	22 (17.7)
petitioner)	2 (15 0)	1 (2.0)	1 (6 7)	10 (14 5)
Medical personnel	3 (15.0)	1 (2.9)	1 (6.7)	18 (14.5)
Friend	2 (10.0)	3 (8.6)	2 (13.3)	17 (13.7)
Coworker	1 (5.0)	2 (5.7)	0 (0.0)	9 (7.3)
Social media	1 (5.0)	1 (2.9)	2 (13.3)	9 (7.3)
School employee Other	0 (0.0) 0 (0.0)	0 (0.0) 1 (2.9)	3 (20.0) 1 (6.7)	8 (6.5) 4 (3.2)
Police action at contact/service <sup>b</sup> Arrest on criminal	8 (40.0)	15 (42.9)	3 (20.0)	38 (30.6)
charges 5150 (involuntary	3 (15.0)	8 (22.9)	1 (6.7)	32 (25.8)
psychiatric hold) Transport to	4 (20.0)	9 (25.7)	1 (6.7)	29 (23.4)
hospital Use of force	1 (5.0)	1 (2.9)	0 (0.0)	7 (5.6)
Firearm recovery <sup>b</sup>				
Any firearm removal pursuant to	11 (55.0)	19 (54.3)	6 (40.0)	73 (58.9)
GVRO Any recovered firearm not in CLETS <sup>c</sup>	6 (54.5)	3 (15.8)	1 (16.7)	16 (21.9)
Any known firearms not recovered Order after a hearing	3 (15.0)	4 (11.4)	2 (13.3)	14 (11.3)
Issued	8 (40.0)	21 (60.0)	9 (60.0)	65 (52.4)
Sought but not issued	2 (10.0)	2 (5.7)	0 (0.0)	16 (12.9)
Not sought	9 (45.0)	11 (31.4)	5 (33.3)	39 (31.5)
Legal representation at hearing <sup>d</sup>	(n = 8)	(n = 22)	(n = 8)	(n = 62)
Petitioner only	4 (50.0)	15 (68.2)	4 (50.0)	29 (46.8)
Respondent only	0 (0.0)	1 (4.5)	0 (0.0)	3 (4.8)
Petitioner and	0 (0.0)	1 (4.5)	1 (12.5)	12 (19.4)
respondent None	3 (37.5)	5 (22.7)	3 (37.5)	17 (27.4)

a. 123 unique respondents; one respondent had 2 distinct GVROs.

The second most cited reason for Black Californians' lack of willingness to use a GVRO was "not trusting the system to be fair" (cited by over 20% of those unwilling). Indeed, we found that a relatively low proportion of Black GVRO respondents had documented firearm access or were issued an order after a hearing, perhaps indicating that the bar for issuing a temporary or emergency GVRO to Black individuals is lower than that of other racial/ethnic groups. Black and Hispanic/Latinx respondents were

b. Categories are not mutually exclusive.

c. A potential mass shooting was defined as a threat to shoot either an unspecified number of people or 3 or more people not including oneself.

d. These risk factors were coded as (1) if present, and otherwise left blank (0), so we cannot distinguish between "no" and "unknown".

e. Based on information in the petition.

b. These were coded as (1) if present, and otherwise left blank (0), so we cannot distinguish between "no" and "unknown."

c. Among those with any firearm removal. CLETS=California Law Enforcement Telecommunication System, the electronic network that allows officers to access firearm purchase records, among other things. Records are much more complete for handguns than long guns.

d. Among those with an order after a hearing form in the case file. This form was missing for 4 cases in which we believe an order after a hearing had been granted (based on court minutes and other forms in the file).

also most often arrested at the time of GVRO service. However, our findings suggest that this is in part due to differences in the nature of the threat among Black and Hispanic/Latinx respondents, such as a higher proportion of cases involving other-directed threats versus threats of self-harm alone, rather than inequities in GVRO use.

While officers cannot ignore criminal offenses, these findings nevertheless reinforce concerns that ERPOs can exacerbate inequities by disproportionately enmeshing minoritized people in the criminal legal system. (Pear et al., 2021; Pallin et al., 2021) We could not determine whether GVROs led to criminal charges, though that would be at odds with the spirit of the law (a *civil* restraining order) and could perpetuate deeply entrenched racial/ethnic inequities in criminal legal system involvement. Future research should examine whether, and in what cases, criminal charges are brought as a result of the ERPO and whether such charges are pursued in lieu of the civil ERPO mechanism or related health and social services that seek to promote health and safety outside the criminal legal system.

Of those unwilling to petition for a GVRO, the only group to cite concerns about the system not being fair more often than Black Californians were white Californians (though among all participants, the overall percentages were similar between Black and white adults). Compared with most other groups, white Californians also less often cited not knowing enough about GVROs and more often cited concerns about due process rights, risk being a personal/family matter, and it never being appropriate for the government to take a person's guns. Consistent with prior research,(Metzl, 2019; Thomas et al., 2022) these findings suggest that individuals of different racialized identities relate to and perceive firearms and the institutions that regulate them differently, with white people's lack of institutional trust perhaps rooted more in concerns over privacy and Second Amendment rights.

In contrast, Black and Hispanic/Latinx Californians' hesitation to use GVROs may stem in part from experiences of inequity and racism. For example, police tend to underserve these communities when contact is community initiated, such as during calls for service and other requests for protection from harm, despite over policing of low-level crime. (Prowse et al., 2019; Rios et al., 2020; Levoy, 2015) The hesitation may also reflect legitimate concerns about police violence; in the past 4 decades, police have killed Black Americans at a higher rate than any other racial/ethnic group (3.5 times that of non-Hispanic white people), followed by Hispanic/Latinx individuals (1.8 times the rate among non-Hispanic white people).(GBD 2019 Police Violence US Subnational Collaborators, 2021) Recent national survey data indicate that 55% of Black people and 40% of Hispanic people agree that "calling the police or 911 in uncertain situations often does more harm than good," versus only 25% among white and Asian people.(Ipsos, 2021)

Notwithstanding the need for broader societal changes to dismantle systems of oppression, there are ways to decrease the likelihood of racial and ethnic inequities in the context of ERPOs. Implementation efforts might incorporate recent innovations that shift some public safety resources and responsibility towards community crisis response teams comprising mental and behavioral health specialists. (Beck et al., 2020; Butler and Sheriff, 2020) With training, these teams could work alongside law enforcement to serve ERPOs and facilitate firearm recovery. These professionals and others (e.g., violence interventionists) could also help connect ERPO respondents to social and behavioral health services. A recent qualitative study of ERPOs found that civilian petitioners in Washington state expressed frustration with a lack of connection to services and a desire for the ERPO to help catalyze needed behavioral health supports.(Prater et al., 2022) As such, ERPOs could not only reduce the potential for lethal violence by preventing firearm access, but also provide an opportunity to address underlying needs and mitigate existing structural and social inequities in resources. This is important because ERPO respondents may be vulnerable to chronic risk factors for violence, such as untreated substance use and mental health problems and employment or housing instability. For ERPOs to have maximum life-saving impact, it will be critical to adequately fund the

systems through which such services are provided and invest in the infrastructure to connect respondents across multiple social and health-serving sectors.

Considering our finding that Black respondents were least likely of any racial/ethnic group to have legal representation at the hearing for the 1-year order, and prior research suggesting the benefits of advocates for civilian ERPO petitioners and domestic violence survivors,(Prater et al., 2022; Bell et al., 2011) court advocates and legal assistance should also be made available to ERPO respondents and petitioners to help navigate the system and ensure that the rights of all parties are protected regardless of income or race/ethnicity. Similar services are often provided by California courts for other restraining orders, and legal representation for ERPO respondents is required in other states (e.g., Colorado).(The Educational Fund to Stop Gun Violence, 2022)

Recent investment by the California state government for GVRO implementation, including a 1 million dollar appropriation for city attorney and law enforcement education and training and a 10 million dollar appropriation for community-based education and outreach, may provide an important first step in fulfilling the recommendations outlined above.(Budget act of 2021, 2021; Office of Governor Gavin Newsom, 2022) However, the extent to which this investment and training will be structured to enhance equity remains to be seen. As California, other states, and now the federal government(Bipartisan safer communities act, 2022) support implementation of ERPO laws, they should include funding and provisions to promote equity, including formal racial impact assessments,(The Educational Fund to Stop Gun Violence, 2022) that are directly informed by community needs and preferences.

#### 4.1. Limitations

CSaWS 2020 data may be subject to social desirability and non-response biases, though non-response was rare and evidence shows online surveys limit such biases.(Kreuter et al., 2008) The survey was fielded in the summer of 2020, during the coronavirus pandemic and national protests against ongoing racial injustices in the United States. Responses may have been affected by this socio-political climate.

Nearly half of the GVRO court case files we requested were never received. Almost all of the missing cases were for emergency orders not followed by an order after a hearing; therefore, our findings may not generalize to those cases. Additional details about the missing records have been published elsewhere. (Pear et al., 2022) Furthermore, relatively few people were respondents to GVROs in California from 2016 to 2018, and cell sizes were small for certain strata. The narratives varied in detail, and information was often limited or missing (e.g., for those arrested, we often did not have information on the reason for the arrest). Data were also almost exclusively from the perspective of the petitioner, which may result in biased or inaccurate information, including about the respondent's race/ethnicity, risk factors, and the nature of the threat. Use of force may have been under-reported, as most petitioners were police officers. We had limited follow-up information on respondents and thus do not know what consequences GVROs had on risk for subsequent violence or other outcomes.

All data in this study are California-specific. There may be differences across states in ERPO implementation, use, and context. Finally, limited racial/ethnic diversity among our research team (mostly white) may have reduced our ability to center the point of view of minoritized groups. (Ford and Airhihenbuwa, 2010)

#### 4.2. Conclusion

ERPOs are a promising intervention to prevent firearm violence. Results from this study indicate the potential for racial/ethnic inequities in the benefits and harms of ERPO use (or lack thereof) in California and identify opportunities for advancing equity-conscious policymaking and implementation. Recommendations include engaging with impacted

communities to better understand barriers to petitioning for ERPOs and appropriate strategies for reducing such barriers, incorporating non-law enforcement professionals in the process of ERPO service and firearm recovery, offering legal assistance and court advocates to respondents and petitioners, and investing in supportive systems to address underlying risks for violence. Lastly, additional efforts are needed to continue monitoring the impact of ERPO and other firearm violence prevention policies on racial equity and to address the structural roots of inequities in firearm-related harm.

# Disclosure of funding and possible conflicts of interest

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#### CRediT authorship contribution statement

V.A. Pear: Conceptualization, Writing - original draft, Formal

analysis. J.P. Schleimer: Conceptualization, Writing – original draft, Formal analysis. A.J. Aubel: Writing – review & editing. S. Buggs: Writing – review & editing. C.E. Knoepke: Writing – review & editing, Methodology. R. Pallin: Writing – review & editing. A.B. Shev: Writing – review & editing. E. Tomsich: Writing – review & editing. G.J. Wintemute: Writing – review & editing, Supervision, Funding acquisition. N. Kravitz-Wirtz: Writing – review & editing, Supervision, Methodology.

# **Declaration of Competing Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

#### Data availability

The data that has been used is confidential.

#### Appendix 1 Detailed question wording and response options, 2020 California Safety and Wellbeing Survey

Are you Spanish, Hispanic, or Latino?

Your answer will help represent the entire U.S. population and will be kept confidential. Thank you! Select all answers that apply.

- 1. No, I am not [S]
- 2. Yes, Mexican, Mexican-American, Chicano
- 3. Yes, Puerto Rican
- 4. Yes, Cuban, Cuban American
- 8. Yes, other Spanish, Hispanic, or Latino group (Please specify, for example Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on):[Text box]

Please indicate what you consider your race to be. We appreciate your effort to describe your background using these U.S. Census Bureau categories.

Please choose one or more race(s) that you consider yourself to be.

Your answer will help represent the entire U.S. population and will be kept confidential. Thank you! Select all answers that apply.

- 1. White
- 2. Black or African American
- 3. American Indian or Alaska Native
- 4. Asian
- 5. Native Hawaiian or other Pacific Islander
- 6. Some other race, please specify: [Text box]

Have you ever heard of something called a gun violence restraining order?

- 1. Yes
- 2. No

Have you ever heard of something called a "red flag" law?

- 1. Yes
- 2. No

IntroG\_1.

California has something called a gun violence restraining order or GVRO. These are also sometimes called "red flag" laws. When someone is threatening to hurt themselves or someone else, and they have or could get a gun, a GVRO can be used to temporarily prevent that person from having or buying guns.

The person's immediate family, household members, or the police can ask a judge to give this order. In an emergency, the judge can issue an order immediately that lasts for up to 3 weeks. After a court hearing the judge can issue an order that lasts for up to 1 year.

V.A. Pear et al. Preventive Medicine 165 (2022) 107181

GVROs are only available if other options to protect against harm have failed or are not appropriate. [RANDOMIZE AND DISPLAY 1 OF THE 4 FOLLOWING:].

- A. [Scripter: No statement shown for this random group]
- B. Research suggests that GVROs prevent violence.
- C. Research suggests that GVROs prevent violence. There have been >20 cases in California where GVROs were used in an effort to prevent mass shootings. Those mass shootings did not occur.
- D. Research suggests that GVROs prevent violence. In other states, studies have found that 1 life is saved for every 10 to 20 GVROs used to prevent suicide.

In general, do you think it would be appropriate for a judge to issue a GVRO in the following scenarios? Assume the person has or could get a gun and other options have failed or are not appropriate.

	Never appropriate	Sometimes appropriate	Usually appropriate	Always appropriate	Don't know
The person is experiencing an emotional crisis					
The person has severe dementia or something like it					
The person has threatened to physically hurt themselves					
The person has threatened to physically hurt you or someone else					
The person has threatened to physically hurt a group of people					

You mentioned that you didn't know. Is this because you need more information about GVROs?

- 1. Yes
- 2. No

Would <u>you personally</u> be willing to ask a judge for a GVRO if a member of your family was in one of the following scenarios? Assume your family member has or could get a gun and other options have failed or are not appropriate.

	Not at all willing	Somewhat willing	Very willing
They were experiencing an emotional crisis			
They had severe dementia or something like it			
They had threatened to physically hurt themselves			
They had threatened to physically hurt you or someone else			
They had threatened to physically hurt a group of people			

Would you prefer to have the police ask a judge for a GVRO for you?

- 1. Yes
- 2. No
- 3. Don't know

You mentioned that you were not at all willing to ask a judge for a GVRO in one or more situations. Please choose the reasons why. Select all that apply.

- 1. I don't know enough about GVROs
- 2. I'm worried about retaliation
- 3. I'm worried about due-process rights
- 4. I don't want to involve the court
- 5. I don't trust the system to be fair
- 6. These are personal or family matters
- 7. It is never appropriate for the government to take a person's guns
- 8. Other, please specify: [Text box]

# Appendix 2. Gun Violence Restraining Order Narrative Abstraction Guide

Abbreviations

 $GVRO = Gun \ violence \ restraining \ order$ 

LE = Law enforcement.

R = Respondent.

Y = Yes.

N = No.

DK = Don't know.

OGV = Order after a hearing.

V.A. Pear et al. Preventive Medicine 165 (2022) 107181

AFS = Automated Firearm System.

**DESCRIPTORS:** descriptors are used to more easily classify cases' basic characteristics. Descriptors are mutually exclusive. The **first coder** should complete the descriptors. The **second coder** should review the descriptors and note any discrepancies with a memo.

- We expect that we cannot fill out all descriptors so if you do not know one, leave it blank.
- If it seems like you have the information to fill it out but the response options do not include an appropriate option, write a memo and send an email to the group.

# Reason for initial LE contact: GVRO, other.

- Did law enforcement first get in touch with the respondent for this case in order to seek or serve a GVRO, or because of some other event? For example, if law enforcement was called to a domestic dispute and then decided to pursue a GVRO, the reason for initial LE contact is "other." If first law enforcement contact was made to evaluate a situation with a GVRO in mind or to serve a GVRO, reason for initial LE contact is "GVRO." If LE made contact with R but did not petition for the GVRO (e.g., family petitioner), put "other."

If not GVRO, reasons for initial LE contact: If the initial reason for LE contact was Other (not GVRO), fill in the text box to specify why LE made the initial contact. (Skip this if initial contact was for the GVRO).

<u>Target of Harm 1</u>–3: Others, LE; Others, other specific target; Self; Others, workplace; Others, medical; Others, family violence (not IPV); Others, school/children; Others, intimate partner; Others, random targets.

- Who is the target of harm in the case? (Fill in "Target of Harm 2" and "Target of Harm 3" as needed).

# Potential mass shooting?: Y/N.

- Was a GVRO sought in efforts to prevent a mass shooting? A potential mass shooting is a threat to shoot some unspecified number of people OR a threat to shoot at 3 or more people other than oneself.

Firearm access: Access, personally owned; Access, not personally owned; Purchased; Intends to purchase; No known access.

- Characterize the firearm access the respondent had according to the case narrative (not mutually exclusive). These four types of firearm access describe varying degrees of proximity. The most proximal type of access is "access, personally owned" and the least proximal is "no known access". "Purchased" indicates that the respondent purchased a firearm but is still in the 10-day waiting period, i.e., the GVRO would prevent the actual acquisition of an already purchased firearm. "Intends to purchase" indicates that the respondent has expressed intent to purchase a firearm, but has not yet done so. Ownership can be legal or not.

Firearm access 2: Access, personally owned; Access, not personally owned; Purchased; Intends to purchase; No known access.

- Characterize the second type of firearm access the respondent had according to the case narrative.

Petitioner relationship to respondent: Household member, intimate partner; Law enforcement (no relationship); Family member, other; Family member, parent; Household member, roommate; Family member, spouse; Law enforcement (some relationship).

- Who is the petitioner in relation to the respondent?

# # Guns Recovered Owned by Respondent: Number.

- Total number of guns recovered as reported in the record. Only fill this out if it is clear. If there is no information on recovery, leave it blank. Only count guns, not gun parts. But if gun parts are recovered, flag it with a memo.

# # of known firearms NOT recovered owned by respondent: Number.

- List the number of guns **not** recovered that were owned by the respondent (e.g., firearms that law enforcement thought the respondent had as indicated by AFS but that were not recovered). Only fill this out if it is clear. If there is no information on recovery, leave it blank.

# # Guns Recovered Not Owned by Respondent: Number.

- List the number of guns recovered that were **not** owned by the respondent (e.g., any guns recovered that belonged to a parent, spouse, or roommate). Only fill this out if it is clear. If there is no information on recovery, leave it blank. Only count guns, not gun parts. But if gun parts are recovered, flag it with a memo.

#### # Guns Not Recovered Not Owned by Respondent: Number.

- List the number of guns **not** recovered that were **not** owned by the respondent but were relevant to the case (e.g., any guns **not** recovered that belonged to a parent, spouse, or roommate that were relevant because the respondent had access to them). Only fill this out if it is clear. If there is no information on recovery, leave it blank.

# # Guns Recovered, ownership not specified: Number.

- List the number of guns for whom the owner was unspecified. If there is no information on recovery, leave it blank. Only count guns, not gun parts. But if gun parts are recovered, flag it with a memo.

# Any guns not recovered, ownership unknown (Y/N).

- Use this code to indicate that NOT all guns that the respondent has access to have been recovered, but there are no details on exactly how many gun(s) there are or who the gun(s) belong to. If there is no information on recovery, leave it blank.

#### Firearms recovered that were not in AFS?: Y/N.

- Does the record indicate that agents recovered firearms that were not known about because they were not recorded in AFS? If there is no information on recovery, leave it blank. Only count guns, not gun parts. But if gun parts are recovered, flag it with a memo.

OGV: Issued, Sought but not issued, Not sought.

- Characterize the Order After Hearing in this case. If the Order After Hearing documents have a hearing date, "filed" stamp, expiration date, and/or signatures, it can be considered as issued. If these are all missing, it can be considered NOT issued.

CODES: codes are used to capture details of the cases' contexts and

characteristics. Codes are NOT mutually exclusive.

**Respondent risk factors:** These codes will be used to identify known risk factors for committing violence among respondents, or triggering events that led to the GVRO.

Sub-codes "GVRO-related" and "background risk":

V.A. Pear et al. Preventive Medicine 165 (2022) 107181

Use these, when available, to indicate whether the risk factor was related to the events leading to the GVRO ("GVRO-related") or not ("background risk"). GVRO-related risk factors should be part of the cluster of events leading to the GVRO. Background risks give context about the person but are not directly related to the current GVRO.

#### Loss/relationship problem:

Use this to indicate that the respondent recently had a falling out with a friend, family member, or significant other, or if there was a death/near death event of a friend, family member, or significant other. Use sub-codes to indicate **both** whether the relationship problem was related to the GVRO and what the nature of the relationship was between the respondent and the problem individual.

#### Mental illness (named):

Use this to indicate that the respondent has a mental illness if the diagnosis is stated explicitly (e.g. "R has history of mental illness" or "R has depression" or "R has PTSD"). We cannot diagnose people's mental illnesses. Do *not* code for mental illness if it is not explicitly stated. If there is sworn testimony by a mental health (MH) professional that R has a mental illness (even if the MH professional did not do an in-person evaluation), count it as mental illness (named).

#### Substance use:

Use this to indicate that the respondent uses or abuses drugs or alcohol, or that substance/drug access precipitated events leading to the GVRO. Seeing things, hearing things, people chasing them:

Use this to indicate that the respondent is displaying signs of psychosis (hallucinations, delusions).

#### Prior self-directed violence:

Use this to indicate that the respondent has a history of intentionally harming themselves. Current self-directed harm (related to the GVRO) should be indicated with a descriptor.

# Restraining/protective order:

Use this to indicate that the respondent has been the subject of a restraining or protective order (not including the GVRO). If the order is no longer in effect, use the sub-code "past"; if it is still in effect (e.g., box is checked on "Other court cases," section b of GV-110: "Are there now any protective or restraining orders in effect relating to Respondent?"), use the sub-code "current." If status is unknown, just use the parent code. Note: GV-110 section 4a relates to criminal OR civil court cases, so, unless there is additional information elsewhere, don't assume a checked box in 4a is civil or criminal.

#### Police involvement:

Any mention of respondent's involvement with police, whether prior contacts with police/calls for service only or formal action by police (e.g., arrests, charges, or convictions).

# Prior other-directed violence or threatening behavior:

Use this to indicate that the respondent has a history of intentionally harming others or using threatening tactics (e.g., stalking, property damage, vandalism). Use sub-codes to indicate the target of harm's relationship to the respondent. Current other-directed harm (related to the GVRO) should be indicated with a descriptor.

# Employment issues/unemployment:

Use this to indicate that the respondent has current or former problems maintaining stable employment, recent job loss, or if there are other problems at work, like a contentious or hostile environment.

# Housing instability:

Use this to indicate that the respondent has been homeless or nearly homeless (e.g. sleeping in a car or camper, temporary housing in a hotel/motel), or that the respondent's housing instability precipitated events leading to the GVRO.

Threats: These codes will be used to identify if the respondent used any of these means to threaten during the events leading up to the GVRO. Verbal threat:

Use this to indicate the respondent is threatening verbally.

Dangerous/ threatening behavior: With firearm; With other weapon; Without weapon.

Use this to indicate the respondent is displaying dangerous or threatening behavior that could harm or actually did harm oneself or another. Use sub codes above to indicate weapon involvement.

#### Threat posted on social media:

Use this to indicate the respondent posted threats on a social media platform, i.e., Instagram, Facebook, Twitter.

# Mail/email/ text message threat:

Use this to indicate the respondent mailed letters, packages, etc. containing threats, or emailing/texting threats to other individual(s), organization (s), or institution(s).

#### Other:

Use this to indicate the respondent used other means to threaten not mentioned above.

**Source of info to petitioner:** These codes will be used to identify whom the sources providing information to the petitioner about the respondent or event(s) leading up to the GVRO are in relationship to the respondent.

# Respondent:

Use this code to indicate the respondent provided information to the petitioner.

#### Significant other:

Use this code to indicate the petitioner's source of information was a significant other of the respondent, i.e., spouse, girlfriend/ boyfriend, whether current or former.

# Family member:

Use this code to indicate the petitioner's source of information was a family member to the respondent, i.e., parent, sibling, uncle, aunt, grand-parent, stepparent, steppare

# Household member:

Use this code to indicate the petitioner's source of information was a member living in the same household, but not related to the respondent, e.g., a roommate.

# Co-worker:

Use this code to indicate the petitioner's source of information was a co-worker of the respondent.

#### Friend/Acquaintance:

Use this code to indicate the petitioner's source of information was a friend or acquaintance of the respondent.

#### School employee:

Use this code to indicate the petitioner's source of information was an employee at the school the respondent attended, i.e., teacher, principal, janitor, etc.

# Medical personnel:

Use this code to indicate the source providing information to the petitioner is medical personnel, i.e., paramedic, nurse, doctor, mental health professional, etc.

#### Other law enforcement:

Use this code to indicate the source providing information to the petitioner is other law enforcement, i.e., uniformed officer, investigator, federal agent, etc.

# Social media posts:

Use this code to indicate the petitioner is receiving information from social media posts.

#### Witnesses (bystanders):

Use this code to indicate the source providing information to the petitioner is a witness or bystander to the event(s) leading up to the GVRO. Other:

Use this code to indicate another source providing information to the petitioner not mentioned above.

Police action at contact or service: These codes will be used to identify what police actions or services took place when in contact with the respondent at any time.

# Transport to hospital:

Use this code to indicate the respondent was transported to the hospital at police contact.

#### 5150:

Use this code to indicate the respondent was placed on a 5150 hold at police contact. (A 5150 is a California law code for the temporary and involuntary psychiatric commitment of individuals who present a danger to themselves or others due to signs of mental illness.)

#### Arrest on criminal charges:

Use this code to indicate the police arrested the respondent on criminal charges at contact.

#### Psych evaluation:

Use this code to indicate the respondent received a psychiatric evaluation at police contact.

#### Use of Force:

Use this code to indicate police use of force at contact with the respondent.

#### Other protective order:

Use this code to indicate the respondent has been subject to another restraining or protective order not mentioned above (not including the GVRO) at police contact for the GVRO.

**Persons at hearing:** Use these codes to describe who attended any court hearing for a GVRO. This information can be found, at the least, on form GV-130. If form GV-130 is not included, you may find this info elsewhere in the narrative. We do not need to know names or any other details – just IF the following people were there.

# Legal rep for respondent:

Use this code if a legal representative for the respondent was present.

# Legal rep for petitioner:

Use this code if a legal representative for the petitioner was present.

# Petitioner (or stand-in):

Use this code if the petitioner/stand-in for the petitioner was present.

#### Respondent:

Use this code if the respondent was present.

#### Appendix 3 Additional results

# Appendix Table 1

GVRO Respondent Missing Values by Race/Ethnicity.

	GVRO cases, n (%)				
	Black, non-Hispanic $(n = 20)$	Hispanic/Latinx $(n = 35)$	Other, non-Hispanic $(n = 15)$	White, non-Hispanic $(n = 124^{a})$	
Target of harm	1 (5.0)	1 (2.9)	2 (13.3)	6 (4.8)	
Potential mass shooting	0 (0)	1 (2.9)	2 (13.3)	5 (4.0)	
Firearm access	1 (5.0)	0 (0)	2 (13.3)	1 (0.8)	
Recovered firearm not in CLETS <sup>b</sup>	1 (9.1)	0 (0)	0 (0)	7 (9.6)	
Order after a hearing	1 (5.0)	1 (2.9)	1 (6.7)	4 (3.2)	
Legal representation at GVRO hearing <sup>c</sup>	1 (12.5)	0 (0)	0 (0)	1 (1.6)	

a. One individual had two separate GVRO cases.

b. Among those with any firearm removals. CLETS=California Law Enforcement Telecommunication System, the electronic network that allows officers to access firearm purchase records, among other things. Records are much more complete for handguns than long guns.

c. Among those with a form for an order after hearing.

#### **Appendix Table 2**

Need More Information about GVROs Among Survey Participants Who Did Not Know if a GVRO is Appropriate in  $\geq$ 1 Risk Scenarios, 2020 California Safety and Wellbeing Survey (n=449).

	Yes	Yes		
	Unweighted n	Weighted % [95% CI]	Unweighted n	Weighted % [95% CI]
Asian, non-Hispanic	16	45.3 [26.5,65.5]	18	49.9 [30.2,69.6]
Black, non-Hispanic	14	42.5 [22.0,65.9]	18	57.5 [34.1,78.0]
Hispanic/Latinx	102	60.1 [49.8,69.6]	80	36.7 [27.6,46.9]
Other, non-Hispanic	2	40.0 [7.8,84.1]	5	60.0 [16.0,92.2]
White, non-Hispanic	62	34.4 [25.2,44.8]	126	64.9 [54.4,74.1]

Note. Results do not sum to total due to refusals.

#### **Appendix Table 3**

Number of Risk Scenarios Not at All Willing to Ask a Judge for a GVRO for a Family Member, by Race/Ethnicity, 2020 California Safety and Wellbeing Survey (n = 2870).

	Number of risk scenarios, unweighted $n$ (weighted %) [95% CI]						
	0	1	2	3	4	5	
Asian, non-Hispanic	148 (68.4) [59.7, 75.9]	21 (10.3) [6.0, 17.0]	11 (6.4) [3.1, 12.9]	3 (1.3) [0.03, 5.0]	0 (0.0)	22 (12.4) [7.6, 19.6]	
Black, non-Hispanic	84 (60.0) [47.7, 71.2]	15 (9.6) [5.1, 17.2]	8 (5.8) [2.1, 15.1]	1 (0.02) [0.0, 1.6]	0 (0.0)	18 (23.2) [14.0, 36.1]	
Hispanic/Latinx	580 (66.6) [61.7, 71.2]	83 (7.9) [5.6, 10.9]	44 (5.1) [3.3, 7.6]	17 (1.4) [0.8, 2.7]	23 (3.1) [1.7, 5.6)	84 (12.8) [9.6, 16.8]	
Other, non-Hispanic White, non-Hispanic	54 (74.6) [57.3, 86.5] 1161 (69.5) [65.8, 73.0]	8 (14.8) [5.7, 33.1] 205 (11.9) [9.7, 14.5]	4 (4.7) [1.2, 16.3) 96 (6.7) [4.9, 9.1]	1 (0.4) [0.0, 2.8] 25 (1.7) [0.8, 3.3]	0 (0.0) 13 (0.8) [0.4, 1.5]	3 (4.5) [1.2, 15.3] 94 (7.6) [5.7, 10.2]	

Note. Participants who refused to answer in all scenarios were coded as missing.

# Appendix Table 4

Prefer to Have the Police Ask a Judge for a GVRO for You, 2020 California Safety and Wellbeing Survey (n = 2870).

	Yes		No	No		Don't know	
	Unweighted n	Weighted % [95% CI]	Unweighted n	Weighted % [95% CI]	Unweighted n	Weighted % [95% CI]	
Asian, non-Hispanic	78	41.7 [33.4,50.3]	45	21.8 [15.7,29.4]	81	35.0 [27.5,43.5]	
Black, non-Hispanic	33	21.0 [13.4,31.3]	50	42.8 [31.3,55.2]	43	35.3 [24.8,47.5]	
Hispanic/Latinx	299	32.9 [28.5,37.7]	221	24.5 [20.6,29.0]	317	40.7 [35.8,45.7]	
Other, non-Hispanic	27	44.0 [27.7,61.8]	20	29.6 [18.8,46.6]	24	26.4 [14.9,42.3]	
White, non-Hispanic	600	36.6 [33.1,40.3]	407	23.0 [20.1,26.1]	599	39.6 [35.9,43.4]	

Note. Results do not sum to total due to refusals.

# Appendix Table 5

Reason For Initial Law Enforcement Contact Among GVRO Respondents, by Race/Ethnicity (n = 194).

	GVRO cases, n (%)				
	Black, non-Hispanic $(n = 20)$	Hispanic/Latinx (n = 35)	Other, non-Hispanic $(n = 15)$	White, non-Hispanic ( $n = 124^{a,b}$ )	
Assault/brandishing weapon/threatening others	5 (25.0)	10 (28.6)	3 (20.0)	33 (26.6)	
Attempted suicide/suicidal	0 (0)	6 (17.1)	0 (0)	21 (16.9)	
Domestic disturbance	3 (15.0)	7 (20.0)	3 (20.0)	20 (16.1)	
Mental health concern	3 (15.0)	1 (2.9)	0 (0)	4 (3.2)	
Welfare check	0 (0)	1 (2.9)	1 (6.7)	10 (8.1)	
GVRO service	4 (20.0)	4 (11.4)	2 (13.3)	15 (12.1)	
Other	4 (20.0)	5 (14.3)	2 (13.3)	17 (13.7)	
N/A (Missing)	1 (5.0)	1 (2.9)	4 (26.7)	8 (6.5)	

a. One individual had two separate GVRO cases.

b. Two white respondents were contacted for domestic disturbance and threatening suicide and another 2 white respondents were contacted for threatening others and threatening suicide.

# Appendix Table 6

GVRO Respondent Arrest at Contact/GVRO Service, by Race/Ethnicity & Target of Harm.

	GVRO cases, n (%)				
	Black, non-Hispanic	Hispanic/Latinx	Other, non-Hispanic	White, non-Hispanic <sup>a</sup>	
Target of harm included others	(n = 18)	(n = 29)	(n = 11)	( <i>n</i> = 97) 34 (35.1)	
Arrested on criminal charges	7 (38.9)	12 (41.4)	3 (27.3)		
Target of harm was self exclusively	(n = 1)	(n = 5)	(n = 2)	(n = 21) 3 (14.3)	
Arrested on criminal charges	1 (100.0)	2 (40.0)	0 (0.0)		

a. One individual had two separate GVRO cases.

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