

Gun Violence in the News, 2019-2026: Peaks, Geography and Tone of Global Shooting Coverage, and How It Compares with Research and Invention

Fliar BI · Prism Research Layer · Working paper, October 2026 · Dataset and code: github.com/fliarbi/prism-news-api · Licence CC BY-NC 4.0

Abstract

We measure how gun violence was covered in a global news index from January 2019 to July 2026, using 453,034 de-duplicated articles about shootings and other firearm violence, and set that coverage beside 4,639 research papers (2015-2025) and 407 patent families (2015-2024) on the topic. Six results stand out:

1. **Event-driven peaks.** Gun violence took its largest share of news in August 2019, at 107.95 articles per 10,000, the month of the El Paso and Dayton mass shootings. May 2022 had the second-largest share (79.14 per 10,000).
2. **Falling share.** The topic took 23.34 of every 10,000 news articles in 2025, 50.1% less than in 2019 (46.77) and below the 2020 level (24.94).
3. **Geography.** The United States holds 69.75% of located gun-violence news, 1.44 times its share of all news. Among the 25 countries with the most located coverage, Serbia (6.47), Jamaica (4.26) and Ecuador (3.67) are the most over-represented, and Germany (0.22), Spain (0.27) and Japan (0.29) the least. Within India, Manipur (5.57), Punjab (3.95) and Jammu and Kashmir (3.26) lead; within the United States, Minnesota (4.0), New Mexico (3.73) and Rhode Island (3.08).
4. **Shifting attention.** Between 2023 and 2025 the topic's share of national news rose 4.94-fold in Sweden and 3.48-fold in Australia, and fell in France, Canada and Israel.
5. **Tone and urgency.** 96.1% of gun-violence articles are negative in tone (all news: 33.6%), and 96.3% are rated critical priority (all news: 42.6%).
6. **Research and invention.** Papers on gun violence rose from 0.36 to 0.79 per 10,000 papers between 2015 and 2025, a 2.19-fold rise in share. The patent side is small: 407 families, with China's office holding 38.8% of office filings and the United States office 35.4%.

Findings stated for citation

- **F1.** August 2019 was the peak month for gun-violence news, at 107.95 articles per 10,000.
- **F2.** May 2022 had the second-largest monthly share of gun-violence news (79.14 per 10,000).
- **F3.** The topic's share of news fell 50.1% from 2019 (46.77 per 10,000) to 2025 (23.34).
- **F4.** The United States held 69.75% of located gun-violence news, 1.44 times its share of all news.
- **F5.** Serbia (6.47), Jamaica (4.26) and Ecuador (3.67) were the most over-represented of the 25 countries with the most located coverage.

- **F6.** 96.1% of gun-violence articles were negative in tone, 2.86 times the all-news share.
- **F7.** 96.3% carried a critical machine-assigned priority rating, 2.26 times the all-news share.
- **F8.** School shootings and youth violence appeared in 7.54% of themed articles, 102.53 times its rate in all news.
- **F9.** Gun-violence papers rose 2.19-fold as a share of all papers between 2015 and 2025.
- **F10.** Of filings for 407 patent families (2015–2024), 38.8% were at China's office and 35.4% at the US office.
- **F11.** Within India, Manipur (5.57), Punjab (3.95) and Jammu and Kashmir (3.26) had the most over-represented coverage.
- **F12.** Within the United States, Minnesota (4.0), New Mexico (3.73) and Rhode Island (3.08) had the most over-represented coverage.
- **F13.** The topic's share of Sweden's news rose 4.94-fold from 2023 to 2025.
- **F14.** The topic's share of Australia's news rose 3.48-fold from 2023 to 2025.
- **F15.** The topic's share of national news fell from 2023 to 2025 in France, Canada, Israel and the United States.

1. Introduction

Gun violence covers homicides, mass shootings, school shootings, police shootings and attacks by armed groups. Public health agencies record deaths and injuries, and police record incidents. News records something else: attention, meaning how much of the public record a shooting takes, where it is placed and in what tone. Attention matters because it shapes what the public and legislators treat as urgent, and research has studied how coverage of mass shootings frames mental illness and gun policy [4, 8].

Coverage is rarely measured as data in its own right. This paper and its dataset do that for one topic, combining a global news index, research papers and patents. Each comparison uses a denominator, so that growth in the index or in publishing is not mistaken for growth in interest. The companion dataset publishes an article-level sample (56,528 rows) and full coverage tables, so every figure here can be re-derived. The [Prism News API](#) serves the full history.

The paper reports coverage only. It gives no detail of individual cases beyond the names of widely reported events used to date coverage peaks. If you or someone you know is affected by violence or is struggling, contact local emergency services or a crisis line.

2. Data and methods

News. The Prism news index holds articles from outlets worldwide; non-English articles are indexed in English translation. Each article carries its opening text (the first few sentences), a primary location, a graded tone label, an editorial priority rating (1–9), themes, keywords and named organisations. We count unique article identifiers; repeated rows for the same article are removed. When this release was built, 92.88% of the index was readable, so all counts are lower bounds.

Matching. An article is about gun violence when its opening text contains one of 23 phrases as whole words: *gun violence*, *gun crime*, *gun deaths*, *firearm violence*, *firearm deaths*, *mass shooting(s)*, *school shooting(s)*, *drive-by shooting*, *fatal shooting*, *deadly shooting*, *shooting*

death, shooting victim, shooting suspect, shootings, active shooter, gunman, gunmen, shot dead, fatally shot, shot and killed and shot to death. The bare word *shooting* was tested and dropped: in a review of its matches it often meant a film shoot, a basketball shot or a shooting sport. The word *gunfire* was dropped because most of its matches described war. Exclusion patterns remove film, photo and music-video shoots, shooting sports (skeet, clay, Olympic shooting), shooting stars and conspiracy spam. Because the phrase list is already narrow, the patterns removed only 226 of 453,260 raw matches (0.05%).

Precision. One reviewer read 40 randomly drawn matched openings. 35 reported or discussed firearm violence against people (precision 87.5%), counting criminal, mass, police-involved and armed-group shootings. In 31 (77.5%) gun violence was the main subject. The five misses were headline digests and newsletters in which a shooting is one item among many, an aggregator digest, and a homicide report with no firearm.

Measures. Coverage over time is expressed per 10,000 articles in the index that month or year, because the index grew from 11,807,177 articles in 2019 to 26,990,006 in 2025. Geography, tone, priority and themes use January 2023 – July 2026. Geography is expressed as lift: a country's share of gun-violence articles divided by its share of all located articles. Place tags derived from ordinary words (such as "Congress", "Winter" or "Mobile") were treated as unlocated in every location field, which removed 15.3% of city-tagged articles. State lifts use the same rule within India and the United States. Year comparisons use the complete years 2019–2025; 2026 (January–July) is partial.

Research and patents. Research papers are de-duplicated articles and reviews (2000–2025) with a gun-violence term in the title (gun violence, firearm violence, firearm injury, firearm homicide, firearm mortality, gunshot wound, mass shooting, school shooting, active shooter and close variants). Repository deposits and the sports, imaging and plant-biology senses of "shooting" are excluded. Patent families (2005–2024) match gunshot or gunfire detection, active-shooter response, smart guns and gun or trigger locks in the title, are counted once per filing office, and exclude nail, glue, paint, heat and electron guns.

3. Results

3.1 How much and when

The index holds 453,034 gun-violence articles from January 2019 to July 2026. Raw counts moved between 40,482 (2020) and 76,098 (2022), but the share of all news fell over the period: 46.77 per 10,000 in 2019, 39.81 in 2022 and 23.34 in 2025 (Table 1). The 2025 share is 50.1% below 2019 and the lowest of the complete years. The 2020 share (24.94) was 46.7% below 2019, in the year pandemic coverage expanded.

Year	Gun-violence articles	All articles in index	Per 10,000
2019	55,218	11,807,177	46.77
2020	40,482	16,230,014	24.94
2021	54,087	17,281,220	31.3
2022	76,098	19,115,515	39.81
2023	67,423	20,484,506	32.91
2024	56,182	23,311,896	24.1
2025	62,994	26,990,006	23.34

Table 1. Gun-violence articles per year and as a share of the index. 2026 (January–July) is partial and omitted.

Coverage is driven by single events (Figure 1). The highest monthly share was August 2019, at 107.95 per 10,000, the month of the El Paso and Dayton mass shootings. May 2022, the month of the Buffalo supermarket shooting and the Uvalde school shooting, had the second-largest share (79.14 per 10,000) and the largest raw count (12,376, a figure that rises with the size of the index), and June 2022 followed at 66.3 per 10,000. The quietest months were February 2025 (13.62) and March and April 2020 (13.8 and 14.01).

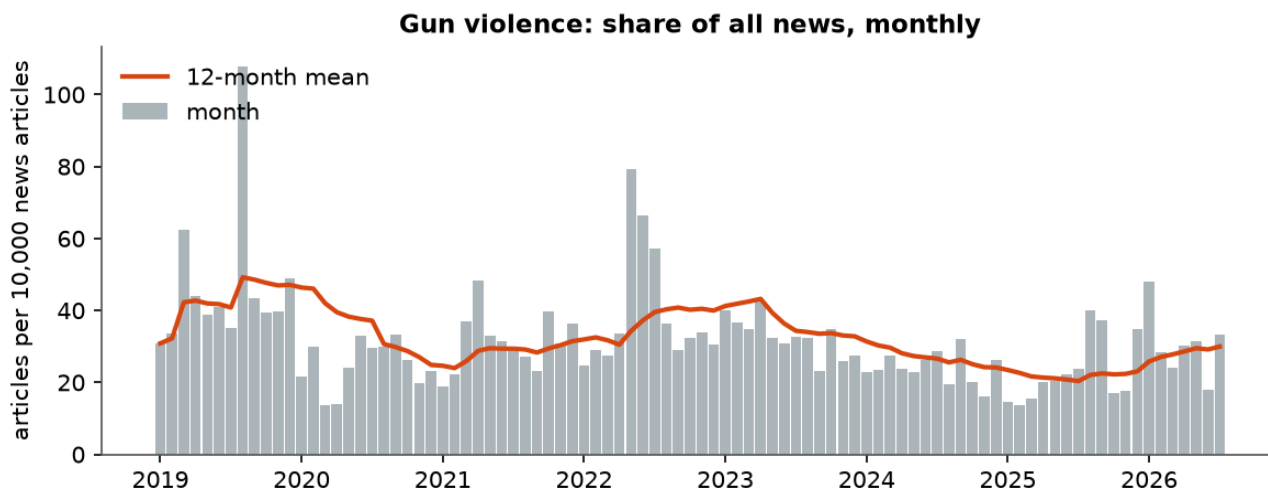


Figure 1. Gun-violence coverage as articles per 10,000 news articles, monthly, January 2019 – July 2026. Bars are months; the line is the 12-month mean.

Seasonality is weak (Figure 2). August holds the largest share of a typical year (10.85%) and November the smallest (6.57%). May to September together hold 47.17%, only modestly more than an even spread across five months. Unlike weather hazards, gun-violence coverage has no strong season; its peaks fall in the months of individual mass shootings.

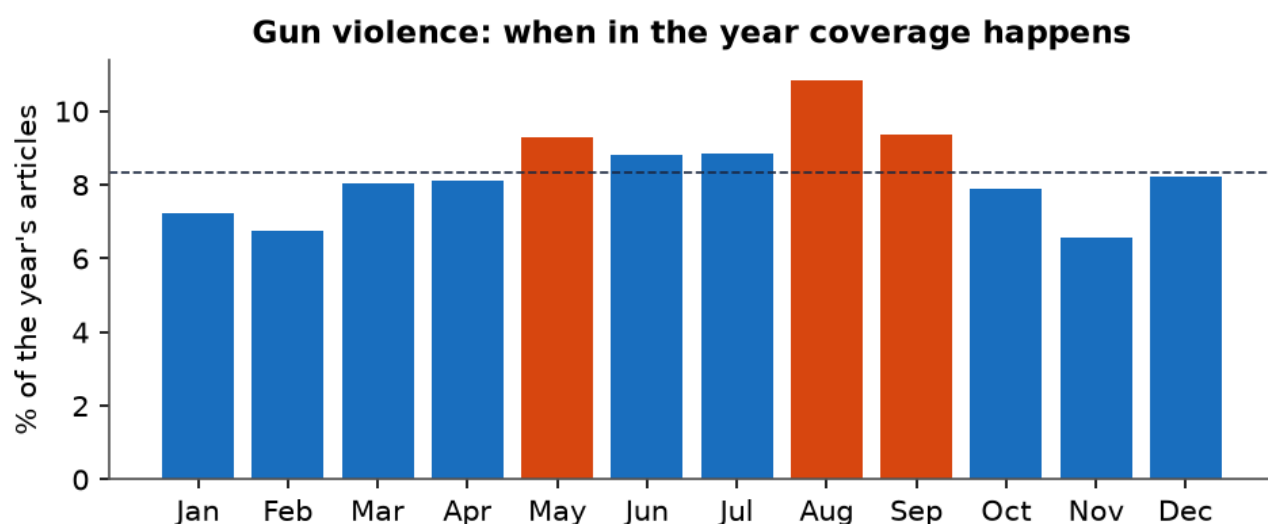


Figure 2. Share of each year's gun-violence articles published in each month, averaged over 2019-2025. Dashed line = an even spread (8.3% per month).

3.2 Where

Between January 2023 and July 2026, 141,102 gun-violence articles carried a primary location. The United States holds 69.75% of them, with a lift of 1.44: gun violence takes a larger share of American news than of news overall. India, the second-largest source (5.98%), has a lift of only 0.45, and the United Kingdom 0.36. The most over-represented large countries are in Latin America, the Caribbean, the Balkans, the Middle East and South Asia (Table 2, Figure 3).

Country	Located articles	Share %	Lift vs all news
United States	98,419	69.75	1.44
India	8,433	5.98	0.45
Australia	3,182	2.26	1.05
Nigeria	3,082	2.18	1.59
United Kingdom	2,940	2.08	0.36
Canada	2,577	1.83	0.85
Israel	2,188	1.55	2.77
France	1,317	0.93	0.47
Pakistan	1,232	0.87	1.93
Mexico	1,078	0.76	2.47
<i>Most over-represented of the top 25</i>			
Serbia	366	0.26	6.47
Jamaica	512	0.36	4.26
Ecuador	352	0.25	3.67
Palestine	812	0.58	2.78

Table 2. The ten countries with the most located gun-violence news, January 2023 – July 2026, followed by the four most over-represented of the 25 countries with the most located news, with lift against all located news.

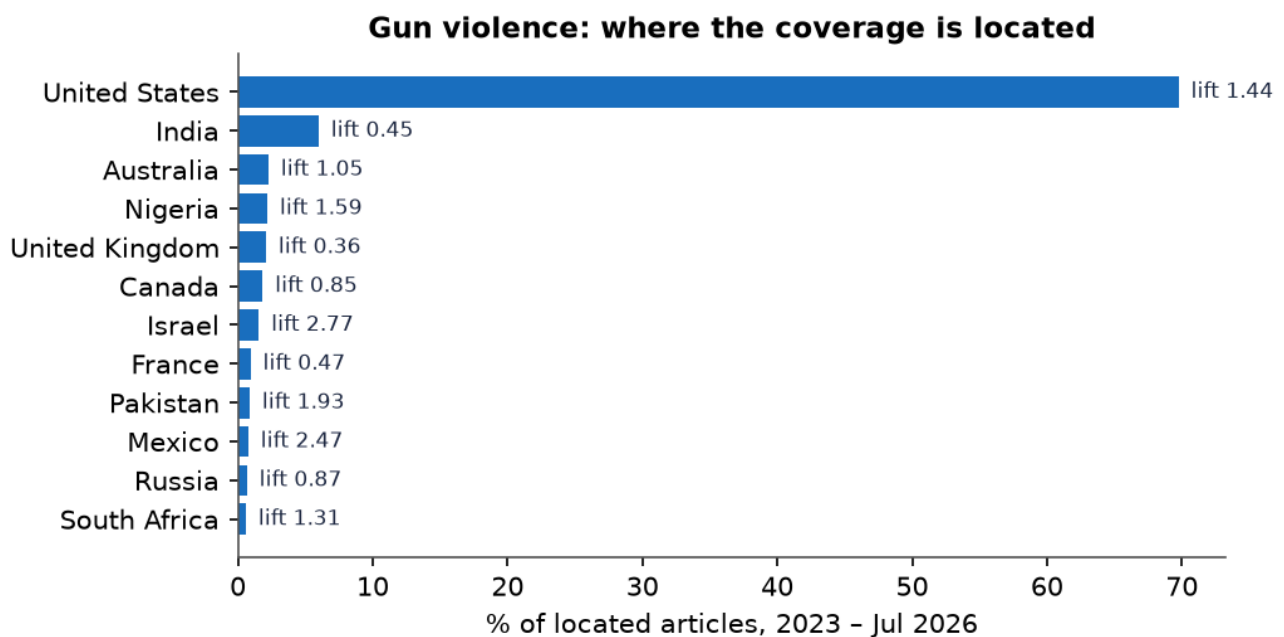


Figure 3. Leading countries by share of located gun-violence articles, 2023 – Jul 2026, labelled with lift against all located news.

3.3 Geo intelligence: continents, states and shifting attention

The world map (Figure 4) shows the pattern at a glance. Gun violence is over-represented in the news of the United States, Mexico, Ecuador, Jamaica, Serbia, Israel and Palestine, Pakistan and Nigeria, and under-represented in most of Western Europe, China, Japan, Indonesia, Vietnam and India. By continent, North America (1.49) is the only region well above its weight; Oceania (1.05) and Africa (1.03) sit at parity, while South America (0.62), Asia (0.51) and Europe (0.38) are under-represented (Figure 7, left). South America's low lift hides strong national differences: Ecuador is over-represented, Brazil (0.63) is not.

Gun violence: which countries over- and under-cover the topic

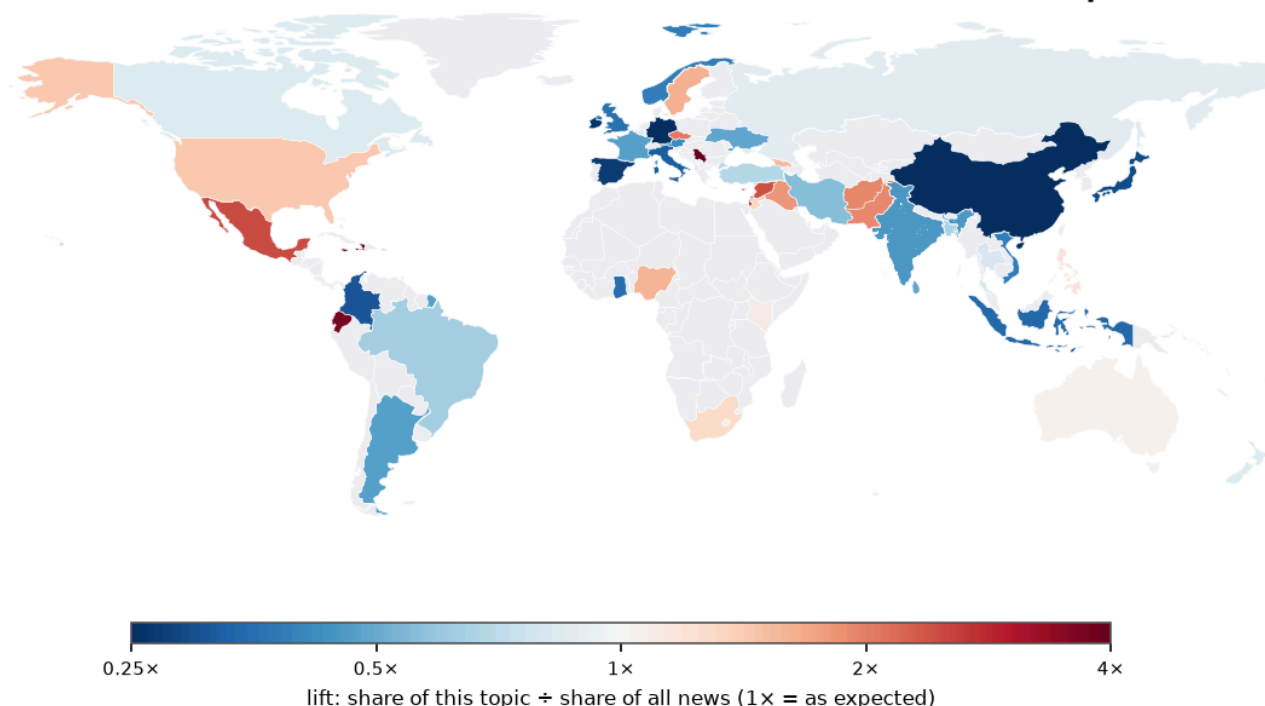


Figure 4. Lift of each country's share of located gun-violence articles, January 2023 – July 2026 (red = over-represented, blue = under-represented, grey = fewer than 100 articles). India is drawn with its official outline.

Within countries, the picture is sharper (Tables 3 and 4). In India, 8,074 located articles concentrate in the north and north-east. Measured against each state's share of Indian news, Manipur (5.57), Punjab (3.95), Jammu and Kashmir (3.26) and Haryana (2.16) are the most over-represented. Uttar Pradesh has the most articles (1,614, or 19.99%) and a lift of 1.57. The southern states are far below their weight: Tamil Nadu (0.25), Kerala (0.32), Telangana (0.34) and Karnataka (0.35) (Figure 5). In the United States, 92,197 located articles give Minnesota (4.0), New Mexico (3.73) and Rhode Island (3.08) the highest lifts, followed by Maine (2.43) and Kentucky (2.19). Kentucky's lift is overstated: in the article sample, roughly a quarter of its rows are coverage of the Connecticut school shooting at Sandy Hook, assigned to a small Kentucky place of the same name. Minnesota is also the fifth-largest source of US articles (5,884). New Jersey (0.09) is far below its weight in American news. This may reflect a large baseline of New Jersey news in the index rather than less gun violence; the data cannot separate the two (Figure 6).

India: state	Articles	Lift	United States: state	Articles	Lift
Manipur	253	5.57	Minnesota	5,884	4.0
Punjab	811	3.95	New Mexico	1,206	3.73
Jammu and Kashmir	618	3.26	Rhode Island	439	3.08
Haryana	446	2.16	Maine	961	2.43
Bihar	696	1.8	Kentucky	701	2.19
Uttar Pradesh	1,614	1.57	Illinois	4,419	1.82
Jharkhand	232	1.18	Utah	1,474	1.8

Table 3. States with the most over-represented gun-violence coverage, January 2023 – July 2026. Lift = the state's share of the country's located gun-violence articles ÷ its share of all located news from that country.

India: state	Articles	Lift	United States: state	Articles	Lift
Tamil Nadu	100	0.25	New Jersey	1,502	0.09
Kerala	62	0.32	Alaska	78	0.42
Telangana	94	0.34	Hawaii	119	0.43
Karnataka	157	0.35	South Dakota	163	0.49
Gujarat	96	0.36	Vermont	60	0.62

Table 4. States with the least represented gun-violence coverage, January 2023 – July 2026 (states with fewer than 50 articles omitted).

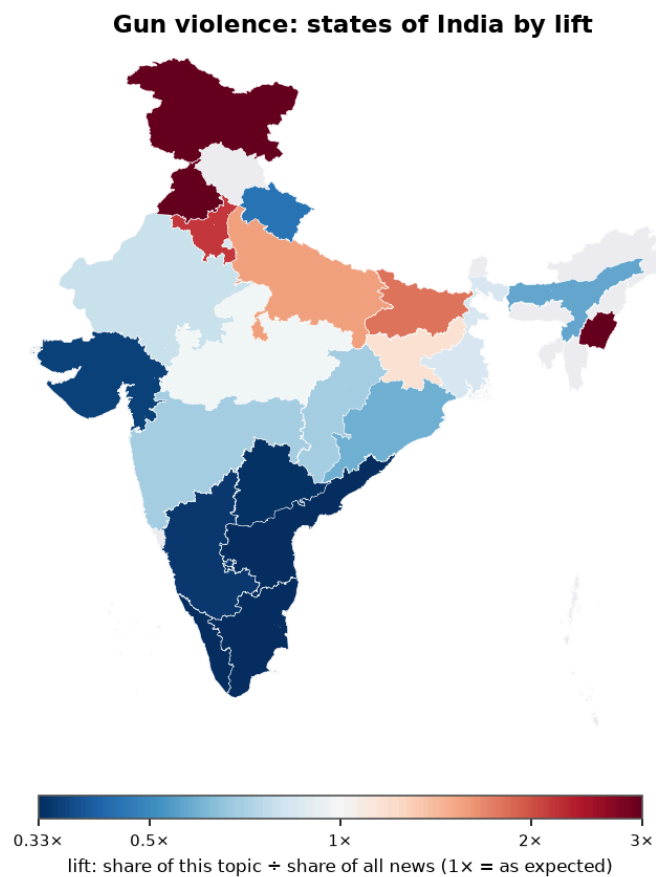


Figure 5. Lift of each Indian state's share of located gun-violence articles against its share of all located Indian news, January 2023 – July 2026. Official outline; Ladakh is drawn within Jammu and Kashmir in the boundary file used.

Gun violence: states of United States by lift

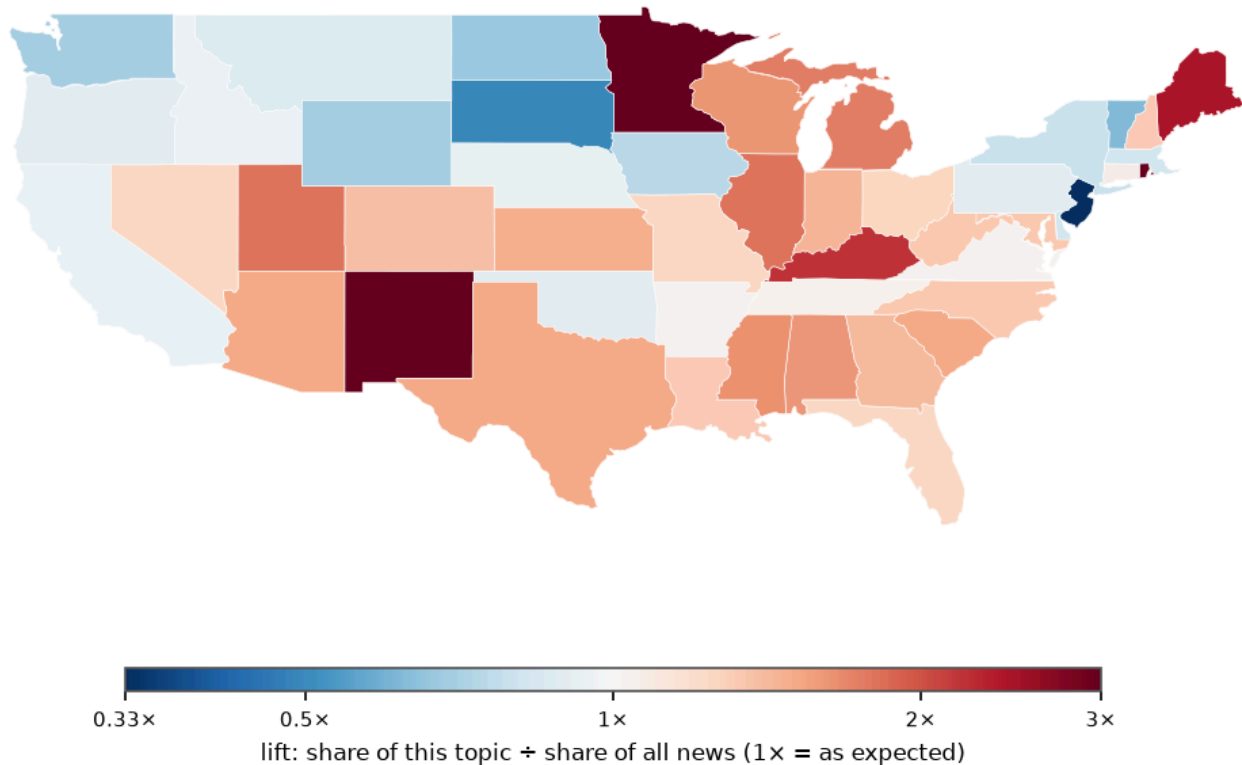


Figure 6. Lift of each US state's share of located gun-violence articles against its share of all located US news, January 2023 – July 2026.

Attention also moves between countries from year to year (Figure 7, right). Measured as gun-violence articles per 10,000 of each country's located news, Sweden rose from 30.66 in 2023 to 151.57 in 2025 (4.94 times), the largest rise among the 25 countries with the most coverage; 2025 was also the year of the Örebro school shooting, and the share fell back to 16.63 in January-July 2026. Australia rose from 20.75 to 72.24 (3.48 times), its highest level of the period, and Ukraine 1.77 times. Among countries with at least 100 gun-violence articles in 2025, the share fell most in France (43.36 to 7.36), New Zealand (52.72 to 22.12), Canada (37.41 to 16.14) and Israel (185.71 to 83.54). In the United States it fell from 62.97 to 46.47. Several falls follow heavy years: Israel's share peaked at 233.18 in 2022, and Serbia's at 685.46 in 2023 before falling to 8.4 in 2025.

Gun-violence coverage is at least 87% negative in every country listed in the tone table, so tone is best read against each country's own baseline. Among the 25 countries with the most coverage, the gap is widest in Japan (96.5% negative against 23.3% for Japanese news overall), Sweden (98.2% against 26.2%) and Spain (98.4% against 30.3%). It is narrowest in Palestine (99.1% against 86.1%), Ukraine (97.0% against 72.4%) and Israel (98.7% against 73.2%), where news overall is already negative. Canada has the least negative gun-violence coverage of the large countries (87.6%).

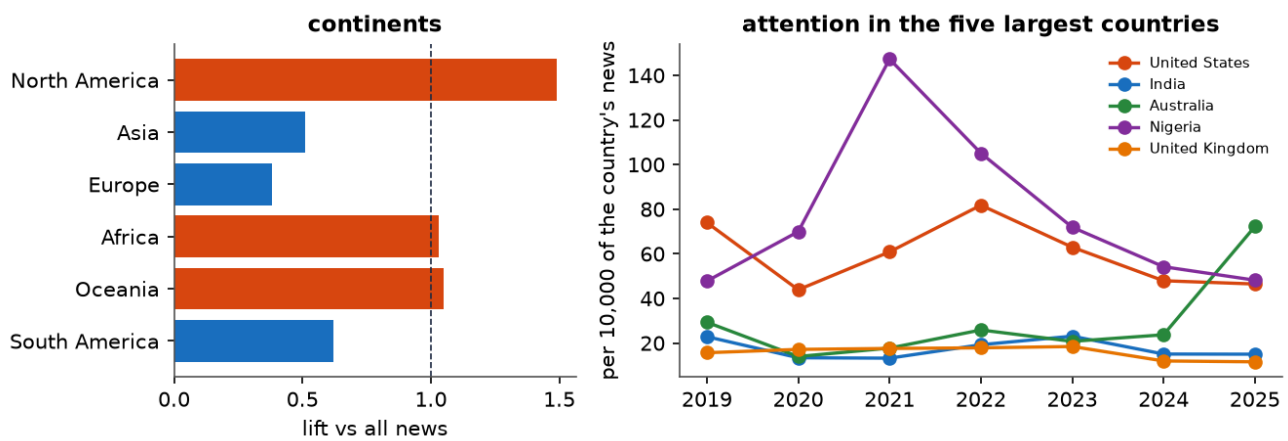


Figure 7. Left: lift by continent, January 2023 – July 2026. Right: gun-violence articles per 10,000 of each country's located news, 2019–2025, for the five countries with the most articles.

3.4 Tone, urgency and themes

Gun-violence coverage is far more negative and more often rated urgent than news overall (Figure 8). Among articles with a tone label, 96.1% are negative, against 33.6% across the index (2.86 times). The index's machine-assigned priority rating puts 96.3% of gun-violence articles at critical level (7 or higher), against 42.6% of all news (2.26 times).

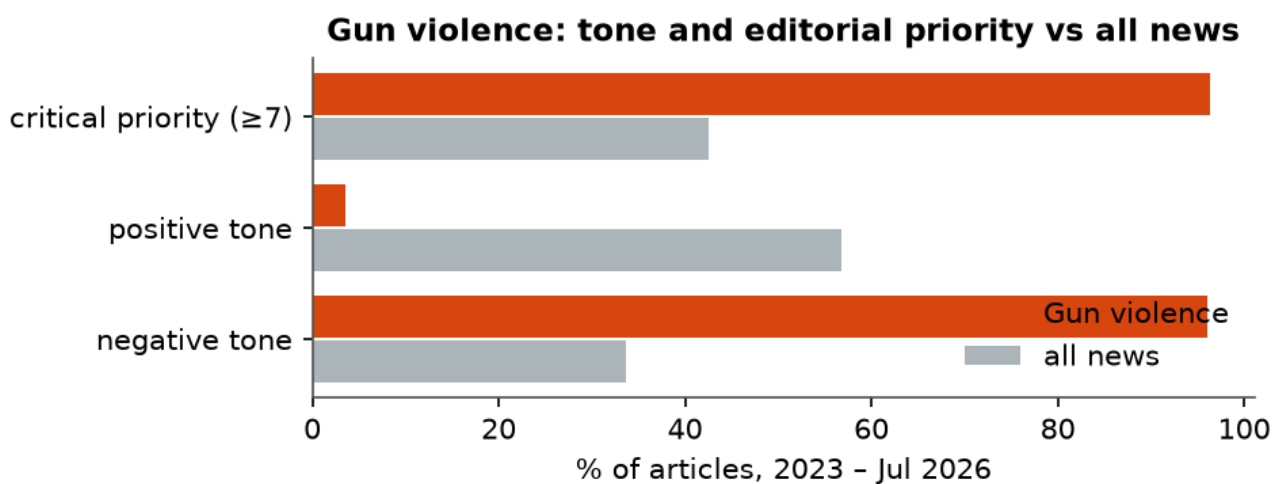


Figure 8. Tone and the share rated critical priority, gun-violence articles vs all news, 2023 – Jul 2026.

Themes show what the stories are about (Table 5). Mass shootings and public mass violence is the most common theme (37.58% of themed articles), followed by homicide and violent crime reports (24.91%) and weapons trafficking and armed violence (22.59%). School shootings and youth violence appears in 7.54%, 102.53 times its rate in all news. Police brutality and custodial deaths (2.18%) and assault-weapon legislation (0.61%) are smaller but specific to the topic.

Theme	Articles	Share %	Lift
school shootings and youth violence	10,327	7.54	102.53
mass shootings and public mass violence	51,456	37.58	93.42
terrorist attacks and mass casualty events	9,639	7.04	72.79
police brutality and custodial deaths	2,986	2.18	66.31
weapons trafficking and armed violence	30,939	22.59	60.14
homicide and violent crime reports	34,103	24.91	57.96
community violence and public assaults	27,577	20.14	57.72
assault weapon legislation and debates	836	0.61	52.83

Table 5. Themes most specific to gun-violence coverage (lift against all themed news; themes with lift above 50), January 2023 – July 2026.

The organisations named most often are wire services and broadcasters: the Associated Press (11,664 articles), CNN (6,429) and Reuters (4,948). The United States Department of Homeland Security (4,437) follows. Several organisations further down the list are linked to single high-profile cases, which shows how strongly individual events shape the record.

3.5 Research attention and invention

Research on gun violence grew faster than the scientific literature. Papers with a gun-violence term in the title rose from 0.36 per 10,000 papers in 2015 to 0.79 in 2025, a 2.19-fold increase in share, while the total literature in the corpus grew by a factor of 1.0 over the same years. Between 2015 and 2025, 4,639 such papers were published, and 6,444 since 2000. Most of the growth came between 2017 and 2019, when the share rose from 0.42 to 0.73. The most-cited papers include work on trends in firearm injuries and on gun ownership and firearm homicide in the United States [1, 2], public health models of violence prevention [3] and the politics of mental illness and mass shootings [4, 5].

News attention and research attention moved in opposite directions (Figure 9). The research share held near its 2019 level or above it, while the news share fell by half.

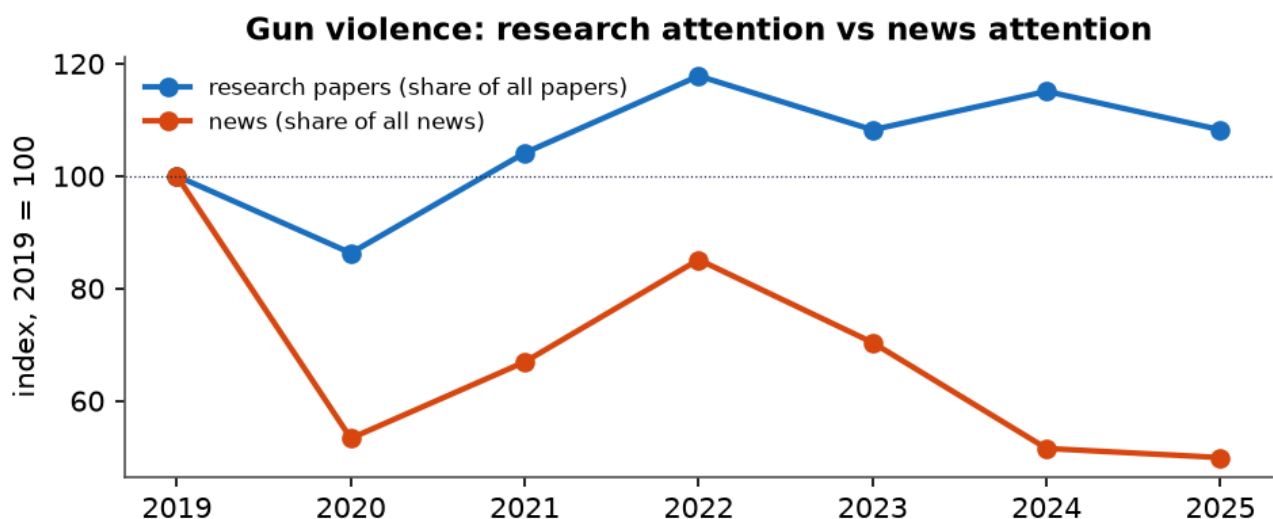


Figure 9. Research papers with gun-violence terms in the title (share of all papers) and gun-violence news (share of all news), each indexed to 2019 = 100.

The patent side is small. 407 patent families published between 2015 and 2024 match gunshot detection, active-shooter response, smart guns and gun locks. Annual counts ranged from 29 to 61, with the most in 2020 (61). China's office holds 38.8% of office-family pairs and the United States 35.4% (Figure 10). The leading technology classes are small-

arms mechanisms (F41A, 57 families), alarm systems (G08B, 24) and radio and acoustic location (G01S, 13), the class of gunshot-location systems.

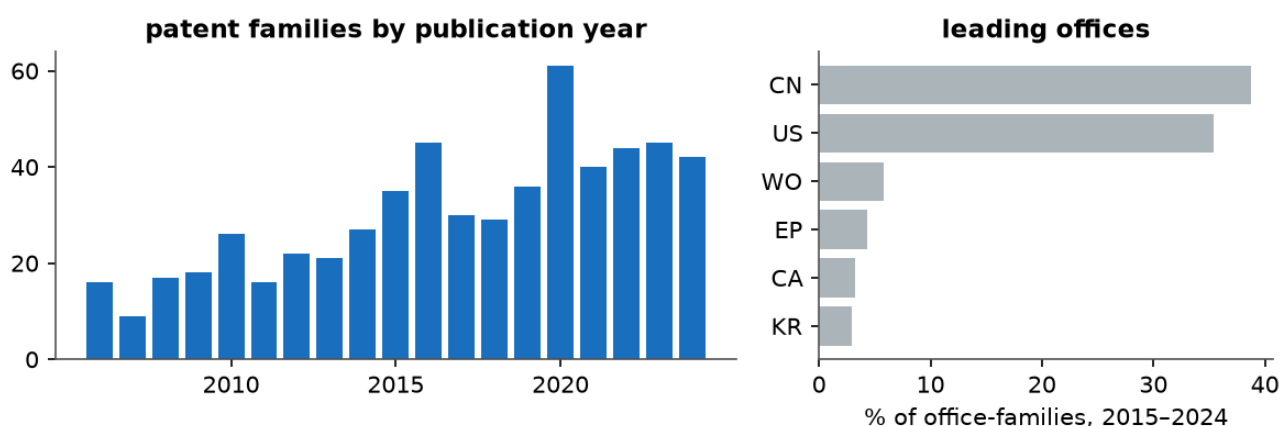


Figure 10. Gun-violence-related patent families by publication year (left) and the leading filing offices, 2015-2024 (right).

4. Discussion

Three points matter for anyone who uses news as a record of gun violence. First, coverage measures attention, and its largest peaks fall in months of mass shootings. The August 2019 and May 2022 peaks are months of mass shootings in the United States; outside such months the monthly share is far lower. Second, raw shares mislead in both directions. The United States dominates in raw terms and is also over-represented by lift, but large countries such as India and Brazil are under-represented, while a smaller country with a heavily covered attack in one year, such as Serbia in 2023, shows a very high lift, and a single year can spike, as Sweden's did in 2025. Third, gun-violence coverage is uniformly negative and urgent, so tone separates countries only when measured against each country's own news.

Research and news run on different clocks. The research share doubled between 2015 and 2025 and has held, while the news share halved from 2019 to 2025. The dataset lets researchers link the two, for example to test whether heavily covered shootings are followed by research or legislative activity in the affected state or country.

5. Limitations

- **Index availability.** 92.88% of the index was readable at build time, so counts are lower bounds. Shares and lifts are less affected, because the missing part is spread across topics.
- **Coverage after May 2026.** The index thins after May 2026, so 2026 is partial and is excluded from year comparisons.
- **Matching.** Matching uses the article opening and a phrase list. Articles that name a shooting only with the bare word "shooting" or later in the text are missed, and in the hand check 12.5% of matches were not about gun violence. Police shootings and armed-group attacks are counted; war is largely excluded by dropping "gunfire", but some conflict reports remain.
- **Machine labels.** Location, tone, priority and themes are machine-labelled. The city field is noisy and is not analysed. Place tags derived from ordinary words were treated as unlocated (15.3% of city-tagged articles), so located totals are smaller than the

number of articles with a place mentioned, and a few true locations that share a name with an ordinary word are lost.

- **Outlet mix.** The index over-represents English-language and American outlets. This raises the United States' raw share and shapes state lifts.
- **Research and patent counts.** These match titles only. The patent side is small, and office shares reflect filing practice.

Data availability

The dataset (article sample, monthly and country tables, research and patent tables, all metrics) is released under CC BY-NC 4.0 with this paper. The sample holds 56,528 of 452,727 matched articles to 31 July 2026. Full article text, headlines, publishers, later articles and other topics are served by the Prism News API: <https://github.com/fliarbi/prism-news-api> (base URL <https://radar-api.fliarbi.com/news>). A worked query: `prism-news trends "gun violence" --since 2019-01-01 --until 2026-07-31 --granularity monthly`.

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