

Decline in Street-Based Illegal Drug Market Activity

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Key Takeaways

- + Illegal drug markets can generate violence through several mechanisms, such as: 1) violence by people who are intoxicated or going through withdrawal; 2) violence committed to fund drug purchases; 3) violence intrinsic to illegal markets, such as territorial disputes and robberies of sellers; 4) victimization of those under the influence of drugs; and 5) violence associated with weapons acquired for protection in drug markets but used to settle conflicts unrelated to drug sales or use.
- + There is no strong evidence to suggest that changes in illegal drug markets have significantly contributed to the U.S. homicide decline since 2022; however, changes in data availability have made it increasingly difficult to study these markets.
- + Bringing back some version of the Arrestee Drug Abuse Monitoring program and restoring researcher access to illegal drug price and purity data would dramatically improve our understanding of the size and dynamics of illegal drug markets, as well as how they contribute to violence—especially at the subnational level.

Theoretical Mechanisms

Illegal drug markets involve a set of transactions moving drugs along the supply chain, from producers to wholesalers to retailers to the people who use them. At the retail level alone, there are billions of illegal drug transactions in the U.S. each year.¹ The vast majority of transactions and drug use episodes do not produce violence, but there are myriad ways that they can. In 1985, sociologist Paul J. Goldstein developed a framework that distinguishes three links between drugs and violence: psychopharmacological violence driven by intoxication or withdrawal; economic-compulsive violence committed to fund drug purchases; and systemic violence intrinsic to these markets being illegal.^{2,3} Furthermore, drug market participants sometimes arm themselves, and criminologist Alfred Blumstein argued that those weapons sometimes get used in violent disputes that are not related to drug sales or use.⁴

Systemic violence is the mechanism most directly linked to homicide. Market participants cannot use courts or police to enforce agreements; thus, disputes over territory, debts, and product quality—as well as disagreements within supply organizations—are sometimes settled with violence. In addition, drug sellers carrying cash and product are attractive robbery targets.

Established Evidence

Not all illegal drug markets are equally violent. The crack cocaine markets of the 1980s and 1990s were particularly violent because their expansion drew large numbers of young people into selling and that selling was often in visible, place-based markets. Across cities, increases in youth homicide followed the arrival of crack markets with a consistent time lag.⁵

The landscape has changed. Crack and heroin have taken a backseat to methamphetamine and synthetic opioids such as fentanyl as the country's foremost illegal drug problems. Additionally, smartphones, online markets, and cryptocurrency now play a growing—albeit relatively small—role in how drugs are bought and sold.⁶

Market Changes and Relevance to Current Trends

Fentanyl overdose deaths and homicides rose together from mid-2020 to 2021,⁷ and both subsequently saw rapid declines: Homicide deaths since 2022 and overdose deaths since late-2023 have dramatically decreased. However, there is no causal evidence that the rise and contraction of fentanyl availability, which began falling in mid-2023, affected domestic homicides.⁸

Indeed, we lack evidence to suggest that changes in any illegal drug markets have significantly contributed to the U.S. homicide decline since 2022. But changes in data availability have made it increasingly difficult to study these markets. There are a few changes—not necessarily starting in 2022—that, in theory, could have influenced homicide rates in recent years. Table 1 lists the possible mechanisms and the expected effect on homicides.

Table 1. Possible mechanisms linking recent drug market changes to changes in homicides

<i>Mechanism</i>	<i>Expected effect</i>
<i>Contraction in fentanyl supply</i>	↓/↑
<i>Shift from fentanyl powder to pills</i>	↓/↑
<i>Fewer in-person drug transactions</i>	↓
<i>Fewer people in drug-selling street gangs</i>	↓
<i>Aging of the drug-offending population</i>	↓
<i>Violence related to cannabis supply</i>	↓/↑
<i>Increased use of stimulants</i>	↑

Contraction in Fentanyl Supply

Vangelov and colleagues argue that a reduction in fentanyl supply in mid-2023 likely contributed to the sharp decline in fentanyl-involved overdose deaths.⁹ This raises questions about whether the drop led to a reduction in fentanyl-related transactions. If fewer fentanyl transactions occurred, there would be fewer occasions for the debts, disputes, and robberies that generate lethal violence. However, a contraction that raised prices could increase acquisitive crime and concomitant incidental violence.

If there is an empirical link between the fentanyl shortage and systemic violence, we can learn more by focusing on subnational analyses. Moving away from national comparisons is critical, especially given that urine drug testing data suggest that fentanyl concentrations dramatically *increased* in the Western U.S. between November 2025 and June 2026—possibly indicating a recent increase in supply in some parts of the country.¹⁰

Shift from Fentanyl Powder to Pills

The shift from fentanyl powder to pills could have countervailing effects on drug market violence.¹¹ Whereas powders can be easily diluted along the supply chain, leading to rip offs and possible retaliation, this is less likely with fentanyl pills that are largely produced in Mexico and remain in that form until consumed. However, the shift could lead to more

competitive violence as the “commodification” of fentanyl puts downward pressure on prices and revenues.

Fewer In-Person Drug Transactions

The emergence of online sales could reduce some encounters that generate disputes and retaliation. To our knowledge no study has tested whether digital or delivery-based transactions reduce violence in U.S. markets. Some argue that cryptomarkets reduce systemic violence by separating buyers and sellers, and survey data show lower reported violence among online buyers.¹² But these markets are small and unlikely to reach the parts of the drug economy where violence is concentrated.^{6,13}

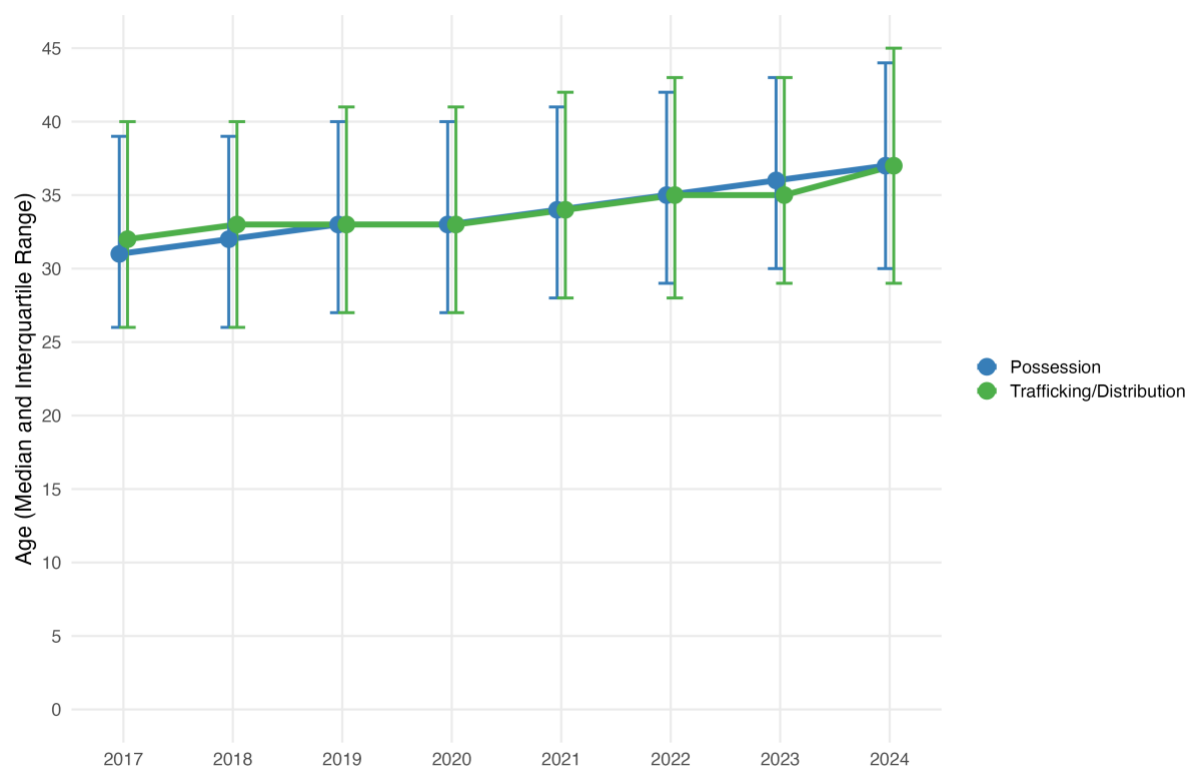
Fewer People in Drug-selling Street Gangs

If there are fewer gangs and gang members selling drugs, there is a lower risk of violent conflict and guns being used to address non-drug conflicts. However, claims of declining street gang membership are hard to evaluate because the National Youth Gang Survey ended in 2012 and no national series has replaced it. FBI analyses of NIBRS suggest that the gang-activity incident rate per 100,000 inhabitants decreased from 7.1 in 2021 to 6.3 in 2024, but this does not tell us about the number of gang members, number of gangs, or whether they were involved in drug selling.¹⁴

Drug Sellers are Getting Older

One hallmark of the violence seen in the crack era was the proliferation of youth and young men carrying guns.⁴ If participants in today’s drug markets are older—potentially meaning they have more experience with conflict resolution and more to lose by engaging in violence (e.g., serious romantic partners and kids)—this could put downward pressure on the homicide rate since people desist from violence as they age, a pattern that holds even among those with the most sustained offending histories.^{15,16} One imperfect proxy for this is the median age of those arrested for drug supply offenses. Figure 1 suggests the median age of people arrested for drug offenses (excluding cannabis) has increased dramatically over the past eight years and is likely much higher than it was during the crack era.^{17,18,19}

Figure 1. Age composition of those arrested for drug offenses, excluding cannabis, 2017 to 2024.



Source: Author's analysis of FBI National Incident-Based Reporting System (NIBRS) data. Based on 5,231 agencies continuously reporting to NIBRS from 2017 to 2024.

Violence Related to Cannabis Supply.

U.S. cannabis markets have typically tended to be less violent than other drug markets. In states that have legalized cannabis, residents increasingly buy from licensed retailers,²⁰ which has pushed some illegal suppliers out of the market. However, organized crime appears to be engaging in unlicensed cultivation, including in legal states.²¹ There have also been a small number of homicides at grow sites and reports of armed robberies of cash-intensive dispensaries.^{22,23}

Increased Use of Stimulants Such as Methamphetamine and Cocaine

Stimulants are addictive and there is evidence that frequent use is positively associated with criminal activity; however, the causal evidence linking use to violence is less consistent.²⁴ We do not have recent and reliable data on the number of people using illegal stimulants, especially frequent consumers. While drug treatment admissions are not perfectly correlated with the number of frequent users—and are influenced by funding and other factors besides consumption—the number of admissions where the

primary drug was methamphetamine or cocaine increased about 10% between 2022 and 2024.²⁵

Some Thoughts on Timing

None of these mechanisms align with an abrupt national change in 2022. Some were underway well before then, others likely began after. If there was a large increase in stimulant use, this may also have offset part of any downward pressure from the other mechanisms. Further, the net effect of channels running in opposite directions is unknown.

Two qualifications follow. First, establishing causal relationships will likely require state and local level analyses. Drug use and market characteristics vary across places, and that variation matters for identification. Second, just because these mechanisms did not “start” in 2022 does not mean they did not contribute to homicide rates. Gradual changes can have discrete effects when they interact with something that shifts abruptly, and the disruption of markets and routine activities during the COVID pandemic is a reasonable candidate.

Emerging Questions and Future Directions

While it is possible that changes in violence related to drug markets might be a partial explanation for some of the homicide rate decline, the federal data infrastructure for evaluating this has weakened substantially. The Arrestee Drug Abuse Monitoring (ADAM) program, which linked drug use to arrestee populations through research interviews and drug testing and also tracked spending on illegal drugs, was terminated after 2013. The last national Survey of Prison Inmates was fielded in 2016, though a new round is reportedly in development. Price and purity data from the Drug Enforcement Administration have become difficult for external researchers to access. Bringing back some version of ADAM and restoring researcher access to transaction-level price and purity data would be comparatively inexpensive.²⁶

The last time we had credible national estimates of the number of people frequently using illegal drugs, total consumption, and retail expenditures was 2016.²⁷ Updating these estimates, and producing them at a subnational level, would not only allow us to better understand fluctuations in violent crime and homicide rates, but also permit more robust evaluations of interventions targeting drug markets and possibly lead to more efficient resource allocation.

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Prepared for CCJ Homicide Decline Research Summit

The United States has experienced a sharp decline in homicide since the middle of 2022. This dramatic and largely unexpected shift has sparked a high-stakes debate about what is driving it. To examine the plausibility of dozens of potential factors, CCJ convened a two-day summit in September 2026 with about 50 researchers from criminology, economics, public health, psychology, sociology, and related disciplines. This brief was prepared to inform discussions during the convening.

Endnotes

- ¹ Kilmer, B. (2026). Stability and turbulence in illegal drug markets. *Proceedings of the National Academy of Sciences*. <https://doi.org/10.1073/pnas.2512078123>
- ² Goldstein, P. J. (1985). The drugs/violence nexus: A tripartite conceptual framework. *Journal of Drug Issues*, 15(4), 493-506.
- ³ Later work argued that the role of drug use in increasing the risk of victimization is important and distinct enough to make it a separate pathway, not just a subset of psychopharmacological violence. MacCoun, R., Kilmer, B., & Reuter, P. (2003). Research on drugs-crime linkages: The next generation. In *Toward a Drugs and Crime Research Agenda for the 21st Century* (NIJ Special Report), 65-95.
- ⁴ Blumstein, A. (1995). Youth violence, guns, and the illicit-drug industry. *Journal of Criminal Law and Criminology*, 86(1), 10-36.
- ⁵ Cork, D. (1999). Examining space-time interaction in city-level homicide data: Crack markets and the diffusion of guns among youth. *Journal of Quantitative Criminology*, 15(4), 379-406.
- ⁶ Cash-based street markets nonetheless still account for most retail transactions, because frequent users who do not purchase in bulk continue to make most purchases of illegal stimulants and opioids. See Kilmer (2026).
- ⁷ C.f., Rosenfeld, R., Roth, R., & Wallman, J. (2023). Homicide and the opioid epidemic: A longitudinal analysis. *Homicide Studies*, 27(3), 321-337.
- ⁸ Del Pozo, B. Corresponding brief in this volume.
- ⁹ Vangelov, K., Humphreys, K., Caulkins, J. P., Pollack, H., Pardo, B., & Reuter, P. (2026). Did the illicit fentanyl trade experience a supply shock? *Science*, 391(6781), 134-136.
- ¹⁰ Millennium Health Signals Report. (July 2026) *Fentanyl Concentrations Surge to All-Time Highs in the West Following National Fentanyl "Supply Shock" in 2024*.
- ¹¹ To help put this shift in perspective: The number of fentanyl pills seized in the U.S. increased from roughly 50,000 in 2017 to more than 115 million in 2023. J. J. Palamar, N. Fitzgerald, T. H. Carr, L. B. Cottler, D. Ciccarone, National and regional trends in fentanyl seizures in the United States, 2017-2023. *Int. J. Drug Policy* 138, 104417 (2025).
- ¹² Martin, J. (2018). Cryptomarkets, systemic violence and the 'gentrification hypothesis.' *Addiction*, 113(5), 797-798.
- ¹³ Barratt, M. J., Ferris, J. A., & Winstock, A. R. (2016). Safer scoring? Cryptomarkets, social supply and drug market violence. *International Journal of Drug Policy*, 35, 24-31.
- ¹⁴ FBI (2025). *Gang Activity, 2021-2024*. Washington DC: US DOJ.
- ¹⁵ Sampson, R. J., & Laub, J. H. (2003). Life-course desisters? Trajectories of crime among delinquent boys followed to age 70. *Criminology*, 41(3), 555-592.
- ¹⁶ Neil and colleagues also find that more recent cohorts appear less arrest-prone than their predecessors at every age; Neil, R., Sampson, R. J., & Nagin, D. S. (2021). Social change and cohort differences in group-based arrest trajectories over the last quarter-century. *Proceedings of the National Academy of Sciences*, 118(31).

¹⁷ For example, MacCoun and Reuter estimated that 40% of adults charged with drug selling in Washington, DC, between 1985 and 1987 were between the ages of 18 and 24; MacCoun, R., & Reuter, P. (1992) Are the wages of sin \$30 an hour? Economic aspects of street-level drug dealing. *Crime & Delinquency*, 38(4), 477-492.

¹⁸ Author's analysis of FBI National Incident-Based Reporting System (NIBRS) data, 2015 to 2024. The panel is restricted to 5,231 agencies reporting in all ten years, which holds coverage fixed and removes the confound that NIBRS participation expanded substantially over the same period. Over the same agencies and period, the median age of persons arrested for homicide increased from 27 to 29 years old. That increase occurred despite a roughly 25% rise in the juvenile share of homicide arrests, from about 8% over 2017–2021 to about 10% over 2022–2024.

¹⁹ Kaplan, J. Jacob Kaplan's Concatenated Files: National Incident-Based Reporting System (NIBRS) Data, 1991-2024. Ann Arbor, MI: Inter-university Consortium for Political and Social Research, 2025-08-21.

²⁰ National Academies of Sciences, Engineering, and Medicine. (2024). Cannabis policy impacts public health and health equity. Washington, DC: The National Academies Press.

²¹ <https://www.dea.gov/sites/default/files/2025-07/2025NationalDrugThreatAssessment.pdf>

²² *Examining cannabis banking challenges of small businesses and workers: Hearing before the Committee on Banking, Housing, and Urban Affairs*, 118th Cong. (2023) (statement of Sen. Steve Daines, at pg. 1). <https://www.banking.senate.gov/imo/media/doc/Daines%20Testimony%205-11-23.pdf>

²³ Drug Enforcement Administration. (2024). *National drug threat assessment 2024* DEA-DCT-DIR-005-24), at pg. 40. U.S. Department of Justice. https://www.dea.gov/sites/default/files/2024-05/NDTA_2024.pdf

²⁴ R. Pacula, R. Lundberg, J. Caulkins, B. Kilmer, S. Greathouse, T. Fain, & P. Steinberg. (2013). Improving the measurement of drug-related crime. Prepared for the Office of National Drug Control Policy. Washington, DC: Executive Office of the President; McKetin, R., Boden, J.M., Foulds, J.A., Najman, J.M., Ali, R., Degenhardt, L., Baker, A.L., Ross, J., Farrell, M. and Weatherburn, D., 2020. The contribution of methamphetamine use to crime: Evidence from Australian longitudinal data. *Drug and alcohol dependence*, 216, p.108262.

²⁵ In 2022, there were 1,286,438 admissions; methamphetamine was the primary drug for 14% and cocaine for 6.1%. The comparable figures for 2024 were 1,319,485, 14.2% and 7.4%.

<https://www.samhsa.gov/data/sites/default/files/reports/rpt57179/2024-teds-annual-report.pdf>

²⁶ Pardo, B., & Kilmer, B. (2022). *Giving drug policy decisionmakers the data they need*. Santa Monica, CA: RAND

²⁷ Midgette, G., Davenport, S., Caulkins, J., & Kilmer, B. (2019). *What America's users spend on illegal drugs, 2000–2016*. Santa Monica, CA: RAND.