Comment to the United States Sentencing Commission
Submitted by Jonathan Caulkins
Professor, Carnegie Mellon University's Heinz College
March 12, 2025

I have been studying various aspects of drug policy for more than 35 years, with particular emphasis on understanding drug markets and the organizations and supply chains that supply them. I write to offer comments on the proposed amendments and issues for comment published in the Federal Register on February 4th, 2025. Thank you for this opportunity. I will discuss each in turn.

Regarding Part A. I agree wholeheartedly with the motivating premise that the sentencing guidelines focus too much on drug type and quantity. At lower levels of the market, many drug dealers operate as sole proprietors, or with minor assistance (e.g., from a look-out or tout). At those levels one might reasonably guess that someone caught in possession of greater weight is likely to be a more important person; first-level wholesale dealers would be more likely than retail sellers to possess larger quantities. At higher market levels, however, a drug operation often more closely resembles a small business, albeit with many staff paid piece-rate or as gig workers (a "fee for service" compensation model) rather than being the equivalent of stable, full-time employees. Nonetheless, that means that it is common for minor functionaries providing low-skilled and easily replaced services (courier, cache sitter) to physically possess drugs that are owned and controlled by someone else (the so-called "kingpin"). That suggests trying to reserve harsh and expensive (for the taxpayers) sentences primarily for those who own the drugs, those who provide a scarce service that is not easily replaced (e.g., a "chemist" who manufactures a hard to synthesize drug), or someone who commits violence on behalf of the enterprise (a "soldier" or "enforcer"). The downward departures for playing a minor role are a nod in that direction, but a downward departure of 2, 4, or 6 levels may still leave the bit players of high-level organizations facing quite long sentences – sentences that cost taxpayers a great deal but impose negligible burden on the drug traffickers who can easily replace low-skilled assistants who are lost. They may also be disproportionately harsh compared to those imposed on retailers or low-level wholesalers (meaning the owner/dealers at those levels, not their hired helpers).

The proposed changes in **Part A Subpart 1** would help with that problem, but there are two kinds of potential "errors" that must be balanced. One is the risk of giving a minor functionary a sentence that is too long. The other is the risk of giving the actual kingpin a sentence that is too short. I have some concerns that in solving the one problem, these changes might risk exacerbating the second.

Being able to threaten extremely long sentences for the relatively modest number of true drug kingpins is useful as a matter of justice. If there are on the order of 100,000 drug overdose deaths per year, and there are roughly 100 top-level international drug traffickers involved in exporting large quantities to the U.S., or being the importer who receives those shipments, then each of them is arguably at least indirectly responsible for killing an average of 1,000 Americans a year. Because there are usually perhaps 4 to 6 transactions in between the exporter and the

retail sale, there is usually little chance of proving a chain of custody from any given overdose victim back up to the exporter, it is sentencing for drug distribution that may be the primary way to punish those kingpins who kill.

Threatening international exporters to the U.S. with very long sentences also gives those highly violent and corrupting actors an incentive to minimize the degree to which they operate within U.S. borders. Keeping violent international trafficking organizations at arm's length is a plus.

It important to ask, what base level sentence could the U.S. threaten an international exporter (or a high-level U.S. based importer) if this was their first arrest in the U.S.? At present, with a base level of 38, that starts at 235-293 months for Criminal History Category I. With the reductions to level 34, 32, or 30, that sentence would be cut to 151-188, 121-151, and 97-121 months, respectively.

There are no bright shining lines, or clear thresholds at which a sentence is long enough to punish or deter kingpins, but a case could be made that cutting from 20+ to less than 10 year sentences for Category I Criminal History might leave the courts wishing they had a more forceful response in those (admittedly uncommon) situations in which the U.S. gets the chance to prosecute a major international trafficker. In that regard, the first option is less risky than the second, let alone the third.

Conceptually an alternative would be to let the reductions for minor roles be larger, when the base sentence would be larger.

Regarding **Part A Subpart 1**, the wisdom of the 2nd option is that there are an amazing variety of drug trafficking organizations in the world, in terms of their structure and operations, and that means there are a very large number of potential roles that are minor. Put differently, not all minor players fill familiar low-level jobs such as courier. Using the listed minor role types merely as examples (as in Option 2) instead of as an exhaustive list (as in Option 1) would help regarding some hapless bit player who happened to be doing some relatively unimportant tasks that don't fall under any of the enumerated roles. That said, I find the enumerated list to be extensive and thoughtful; I did not note any glaring omissions. My best guess is that Option 1 would in fact cover the great majority of minor players.

Regarding Part B. That drug sentences tend to be driven by the total weight of a mixture containing a detectable amount of the controlled substance has long troubled me; I wrote about it at least as early as my 1997 book on mandatory minimum drug sentences. For example, it makes little sense to treat a kilogram of nearly pure fentanyl powder the same way as eight thousand 125 milligram counterfeit pills each of which contains just 2 milligrams of fentanyl. (That is the average amount in a fake pressed pill.) The kilogram of powder contains nearly 50 times as much fentanyl as the eight thousand counterfeit pills, even though they have the same gross weight.

With that backdrop, I thought the attempts with methamphetamine to distinguish high potency "ice" from a racemic mixture of d- and l- optimal isomers, only half of which are biologically active, and to base sentences on the "actual" amount of methamphetamine were positive steps.

That said, I understand that the higher potency forms of meth have driven the lower potency forms out of the market, so as a practical matter essentially all methamphetamine cases these days involve material whose variation in potency from case to case is minor. That may not always be the case. There is a history of successful precursor control interventions producing downward shocks (varying between 6 and 18 months?) to meth potency, and associated harms (c.f., Giommoni, 2024). But such major supply disruptions seem increasingly uncommon, and there is inherent appeal to simplicity, so **I support Part B Subpart 1**.

Regarding Part B Subpart 2, I think it is instructive to draw comparisons with cocaine. Both cocaine and methamphetamine are powerful, addictive psychostimulants, and they fill broadly similar roles in the illegal marketplace. Historically, a kilogram of methamphetamine "meant" roughly the same as a kilogram of cocaine in terms of how many chronic drug users it would supply, its value in the marketplace, and the harm done by that quantity of drug use. I am not arguing that they were exactly the same; e.g., a methamphetamine "high" might last longer. But the differences would be much more modest than when comparing, say, a kilogram of cannabis to either a kilogram of cocaine or a kilogram of meth.

As I understand it, the two options would make 1 kilograms of cocaine (more specifically, 0.5 – 2 kgs of cocaine) equivalent to either

Option #1: 50 – 200 grams (meaning 0.05 – 0.2 kgs)
Option #2: 5 – 20 grams (meaning 0.005 to 0.02 kgs)

To my mind, even Option #1 seems to treat methamphetamine much more harshly than cocaine, so given a choice between those two options, **I would support Part B Subpart 2 Option #1**.

To support my statements comparing cocaine and methamphetamine, consider data from the last comprehensive estimate of the sizes of the various markets for the major illegal drugs in the U.S. (Midgette et al., 2019). The most recent estimates were for 2016, which is nearly a decade ago, but what once had been a regular series of reports has not been continued, and there are no comparable estimates for more recent years.

At any rate, Midgette et al.'s (2019) best estimates of the market totals for that year were:

	Quantity (pure)	Value of Retail Sales	Number of Chronic Users
Methamphetamine	171 MT	$27 Billion	3.2 Million
Cocaine	145 MT	$24 Billion	2.3 Million

By all three measures, quantities were similar for methamphetamine and cocaine. Sure, one could argue that a (pure) kilogram of meth supports 18.7 chronic users per kilogram (3.2M / 171,000 = 18.7), vs. only 15.9 chronic users per kilogram of cocaine (2.3M / 145,000 = 15.9), but that is not a large difference. The difference in criminal income per kilogram sold was even smaller.

The issues for comment explicitly asked: "Should the Commission equalize the treatment of methamphetamine mixture and methamphetamine (actual) but at some level other than the current quantity thresholds for methamphetamine mixture or methamphetamine (actual)?" I think a case could be made for equalizing the treatment of methamphetamine mixture and methamphetamine (actual) at the same level as cocaine, but I do not know whether such a large shift is permissible. So given the choices on the table, I recommend Option #1.

Regarding Part C. I do not have a recommendation regarding Part C and the mens rea requirements. I will just briefly comment on part of the background, specifically the observation that most fake pills containing fentanyl contained a potentially lethal dose. It is obviously true that fentanyl is killing a horrific number of people, and fentanyl pills not just fentanyl powder can be deadly, but the discourse in the U.S. has somehow become obsessed with the "potentially lethal dose" threshold of 2 milligrams, and it can terrify people into poor judgments.

Fentanyl is often described as being about 20 – 25 times more potent per pure milligram than heroin. Those conversions, ultimately based on medical equianalgesic conversion factors, are rough, but arguably the 20 – 25 factor is conservative in this context. That is because heroin powder is usually injected, whereas fentanyl pills are usually consumed orally, and typically the same opioid molecule has roughly 3 times the analgesic power with parenteral vs. oral administration (Nielsen et al., 2016).

With that 20 – 25 to 1 conversion factor, 2 milligrams of fentanyl packs roughly the same dose as 40 to 50 milligrams of heroin, and that is how much heroin appeared in a typical 100 milligram "dime bag" or "point" retail bag in markets where heroin was 40% to 50% pure. Although nationally, heroin purity in the years before fentanyl was slightly lower, generally in the low 30s (Midgette et al., 2019), it could easily be 40% - 50% in major heroin centers like Detroit, New York City, or Vancouver (Buxton, 2005; Roddy, 2009).

In short, while 2 milligrams of fentanyl is literally a potentially fatal dose for someone with no tolerance, it is also just a standard dose for a regular user, not stronger than a strong retail bag of heroin. And given the difference in bioavailability when consumed via the stomach vs. injected, arguably it is weaker when consumed in the usual way.

The fact that it is a pill, and pills both look safe and are easy to take without an IV injection, increases the risk that a naïve person without tolerance will get exposed to that dose. So the reality that there are now pills that pack as much oomph as a dime bag of heroin is a very bad and dangerous development. But when the illegal market supplies pills containing 2 mg of fentanyl to regular opioid users, it is doing something that is not appreciably different than what it has been doing in heroin markets for decades.

Regarding Part D. I fully support Part D having a greater sentencing enhancement for possession of machine guns than for other dangerous weapons including firearms. That is exactly the sort of basis for longer sentences that makes more sense to me than focusing on quantity possessed. I am genuinely excited to see that addition contemplated, and hope it is a harbinger of additional such measures in the future.

The impact of the enhancement being by 4 instead of by 2 varies with other case circumstances but often works out to roughly a 20-25% longer sentence. If the goal is to deter drug traffickers from using machine guns then one would like the cost of using machine guns (in terms of increased expected sentence length) to exceed the benefits (in terms of being able to win fights with rivals or intimidate debtors or potential witnesses). I don't think anyone knows how that calculus would look to the average drug trafficker, but I could see a case for making the sentencing enhancement differential even greater, e.g., plus 6 levels for a machine gun vs. plus 2 for a regular firearm.

The issues for comment asked specifically about concerns that §2D1.1(b)(1) may apply more broadly than other weapons-related provisions elsewhere in the guidelines. I view this as primarily a matter for judges and lawyers to comment on. I will simply observe that by the nature of drug trafficking, the times when drug traffickers use a weapon can differ from the times when an arrest is made. So, it might be problematic if the legal standard for connecting a firearm to drug distribution were too stringent.

Part E falls outside my area of expertise, so I have no comment.

References:

Buxton J, Vancouver Site Network Team. Vancouver drug use epidemiology: Vancouver site report for the Canadian Community Epidemiology Network on Drug Use. Vancouver, BC: CCENDU Vancouver; 2005.

Caulkins, Jonathan P., C. Peter Rydell, William L. Schwabe, and James Chiesa. 1997. *Mandatory Minimum Drug Sentences: Throwing Away the Key or the Taxpayers' Money?* RAND, Santa Monica, CA.

Giommoni L. The impact of precursor regulations on illicit drug markets: An analysis of Cunningham et al. 's studies. International Journal of Drug Policy. 2024 Jun 17:104498.

Midgette G, Davenport S, Caulkins JP, et al. What America's users spend on illegal drugs, 2006-2016. Rand Corporation Santa Monica, CA; 2019.

Nielsen S, Degenhardt L, Hoban B, et al. A synthesis of oral morphine equivalents (OME) for opioid utilisation studies. Pharmacoepidemiology and Drug Safety. 2016;25(6):733–737.

Roddy J, Greenwald M. An Economic Analysis of Income and Expenditures by Heroin-Using Research Volunteers. Substance Use & Misuse. 2009;44(11):1503–1518