From: Gregory Gelembiuk
To: Kapusta-Pofahl, Karen
Cc: Haas, Michael R; Austin, Brian; Sanon, Reuben A
Subject: Re: Recommendation Findley #42 and frequency of MPD use of force
Date: Thursday, January 14, 2021 4:56:01 AM
Attachments: Outlook-4nd2mogg.png
Outlook-enblghqc.png
Outlook-fudc2zlg.png
Outlook-bs1us3pw.png
Outlook-MultipleRo.png

Karen,

Given that the prior has been posted to legistar and sent to the BWC Committee, please do so with this as well.

Greg

Luke,

Here are some responses to your questions and statements. All my responses/comments are in red italics, to differentiate them.

I'll also note - if you end up knowing me long enough, I think you'll come to recognize that I'm a really anal and thorough scientist. I generally triple-check my work for potential errors and tend to be careful in my conclusions. E.g. I said in that email: "Overall, it appears that the rate of use of major force by MPD might be somewhat higher than average." That's not exactly sloppy hyperbolic language.

Even though I'm generally quite careful, that doesn't mean I never make errors, and I'm always open to critique (that's the only way to improve and move toward truth). Often new evidence can emerge that changes one's view. But it's most useful/illuminating if critique actually has adequate basis. And i don't see how this all (which started with a request for an e-mail I sent to the Ad Hoc Committee nearly two years ago) really contributes much to the mission of the BWC Committee.

Greg

From: KKapusta-Pofahl@cityofmadison.com <KKapusta-Pofahl@cityofmadison.com>
Sent: Wednesday, January 13, 2021 4:30 PM
Cc: Haas, Michael R <MHaas@cityofmadison.com>; Austin, Brian <BAustin@cityofmadison.com>; Sanon, Reuben A <RSanon@cityofmadison.com>
Subject: FW: Recommendation Findley #42 and frequency of MPD use of force

[BCC'd BWC]
This correspondence will be entered into legistar, as was the original message.

From: Luke Schieve <lschieve@exactsciences.com>
Sent: Wednesday, January 13, 2021 3:43 PM
To: Kapusta-Pofahl, Karen <KKapusta-Pofahl@cityofmadison.com>
Subject: RE: Recommendation Findley #42 and frequency of MPD use of force

Hi Karen,

I have some questions regarding Greg's input below, would it be possible to respond to include the whole team on these questions?

I'm not sure what's most appropriate, and I don't want to break any rules about walking quorum, so I'll leave it to your discretion.

Some questions on what you provided below.

1. Alpert & MacDonald study (2001)
    a. **The data from this study is from 1996, while the data from the MPD is from 2018. That's over two decades between sample size.**
    Between sample size? What does this have to do with sample size?

    Are you confident that the data this far apart in time is comparable?
    These appear to be Merchants of Doubt-type questions.
    https://www.merchantsofdoubt.org/
    Can I be 100% "confident". No. No-one can ever respond to such a question with an assertion that they're totally "confident". But is there reason to expect it not to be essentially comparable? No. The predominant ways in which police use force have remained mostly unchanged over the last couple decades. And by far the most common use of force is bodily force (takedowns, etc.), and the basic approaches to bodily force haven't changed much in the last few decades. Nationally, crime on a per capita basis has gone down over this period (quite a lot). Rates of police use of force are known to strongly correlate with total crime rates. From trends in crime and officer numbers, if anything, on a per capita or per officer basis, you'd expect the data from these national surveys to show rates that are higher than at the present time (so any difference should tend to make present-day MPD look better in comparison).

    If so, would you agree that other studies that compare similar data across such a long gap would be applicable?
    This appears to be a nonsensical question. It entirely depends on the measure being studied. There is no universal answer. People compare data across such gaps all the time. Researchers continue to use and cite these surveys.

    b. You noted that **the study found a median of 76 incidents of force per 100,000 residents**, while the MPD report found 132 incidents per 100,000 residents. The MPD provided two numbers for their use of force in 2018; The number of incidents (217) and the number of incidents by type (324). The number of incidents by type essentially counts some incidents twice because multiple types of force can be used. For example, a takedown and a taser may be deployed, which here would be counted as two separate uses of force.
    Many reports/studies count it as two separate instances of use of force because it is two separate uses of force. If I threw you to the ground and then tasered you, I think you too might count it as two separate uses of force.

    The Alpert & MacDonald study did not make this distinction, and collected data on the number of incidents where use of force was used.
    Again, this depends on how "use-of-force incident" is defined. You're assuming that in Alpert & MacDonald it's the number of contacts with people in which force was used. Various reports define each application of a different type of force as a separate incident. In the paper, force was defined as the use of physical force, the use of a chemical agent, or the use of a weapon to control a suspect. There is some potential ambiguity and I included for comparison both a value for MPD based on the number of force instances and a value based on the number of people against whom force was used, stating "MPD had an annual rate of 132 major force instances per 100,000 residents and 90.7 contacts where major force was used per 100,000 residents."

    As a minor aside, I'll note that number of times MPD used force in 2018 (the year used for comparison here) was lower than any other year for which MPD tracked use of force data (2016-2019; full 2020 data isn't out yet). In 2019 there were 321 citizen contacts in which recordable force was used (48% higher than in 2018) and 445 individual instances of recordable force.

    As such, it seems more appropriate to take the MPD number of incidents number for comparison, as opposed to the incidents by type, the latter of which can count the same incident multiple times. This would mean the 2018 rate of use of force is 217 for a population of 252,086 (Madison pop. In 2018), or a **median rate of ~85 per 100,000 residents**. Still above average in 2018, but much less significantly.

Yeah, I had a slightly different value for the same statistic, that I included in the e-mail, based on the Madison population size estimate I had available at the time.

i. For example, comparing Milwaukee's use of force number of 682 with a population of 596,886 in 2018, or a median rate of ~114 per 100,000 residents.
1. That's not a "median" rate. Perhaps you mean "mean".
2. When normalized per 1000 officers, Milwaukee's rate of use of force is 386 (versus 450 for Madison).
3. A single city comparison is almost meaningless. There's a reason I sought and used national survey data. Individual cities will vary widely.

2. International Associated of Chief of Police (IACP) (2001)
   a. Again, **this data is from 1991-2000, almost two decades old compared to the MPD report**. Is there not a more recent source to compare?

   No there isn't. I searched for such survey data (that would provide comparable statistics) exhaustively. If there had been more recent data, I would have used it. Others also continue to cite and use these same datasets.

   b. The study notes that another way to express their findings is that police do not use force 99.9639% of the time. According to the MPD report, Madison police do not use force 99.8486% of the time.

   Which makes the same point (MPD using force more often). I'll add that one can always make the absolute value of number look small or large by arbitrary framing (as here). That police don't employ use of force most times they interact with people doesn't really say or mean anything. If you're a really bad driver and crash your car once every month, you could assert that you're a great driver because you don't crash your car 99.9% of hours in a month.

   c. Maybe I'm misunderstanding the data, but from the data collected in this study, they found 171,215 total use of force incidents out of 45,913,161 calls for service. **This translates to 38.59 uses of force for every 10,000 calls for service, well higher than the MPD's 22.7 uses of force per 10,000 calls for service**. **The data you quote is *only* for 1999**, a single year where the average is indeed lower than other years. Why use this year for comparison as opposed to all of the data collected in the study?

   You may be misunderstanding the data. Some elements of the IACP report are not well labeled/explained/defined, so that can be confusing. I carefully used the IACP's own explicit conclusion on the use of force rates per 10,000 calls for service, as well as the table they provide (that specify the same estimate as in their text).

   IACP states:

   ❑ How often do police use force?

   Data for 1999, the last year for which complete data from participating agencies is available, shows that ***police used force at a rate of 3.61 times per 10,000 calls-for-service***. This translates to a rate of use of force of 0.0361%. ***Expressed another way, police did not use force 99.9639% of the time***. Data on the calculated rates of police use of force are presented in Table 10 (on page 12).

   It also states: "IACP has previously released the results in 1996 and 1999 of the ongoing National Police Use of Force Database survey, which showed similar values for the frequencies of police use of force. The current baseline figure for the rate of police use of force is 3.61 for every 10,000 dispatched calls-for-service."

You can see the values for 1999 in table 10. You can also see the values for other years in other tables, including the summary table 7, showing the values for rate of use of force per 10,000 calls for service for 1994-1999 (see first subtotal row for the overall average). All the years are in the same general ballpark. Thus I stated in my e-mail ~4 (i.e., your underlying assumption in "Why use this year for comparison as opposed to all of the data collected in the study?" is incorrect).

Table 7

POLICE USE OF FORCE PER 10,000 CALLS-FOR-SERVICE BY POPULATION SERVED

1994–2000 (Partial)

Cohort	Jurisdiction Size	Agencies Reporting 1994	Agencies Reporting 1995	Agencies Reporting 1996	Agencies Reporting 1997	Agencies Reporting 1998	Agencies Reporting 1999	Agencies Reporting 2000	Rate 94	Rate 95	Rate 96	Rate 97	Rate 98	Rate 99
1	0 – 15,000	49	51	3	16	3	5	61	3.86	4.00	0.35	1.32	2.25	14.73
2	15,001 – 35,000	15	27	8	13	5	6	48	3.33	5.93	5.82	2.98	7.60	4.10
3	35,001 – 55,000	2	4	1	1	1	0	31	5.01	2.61	0.28	4.63	4.83	0.00
4	55,001 – 85,000	9	7	2	3	1	0	21	2.76	2.52	2.62	3.09	2.08	0.00
5	85,001 – 170,000	3	5	1	3	1	1	13	3.88	9.53	0.00	4.15	2.75	0.00
6	170,001 – 500,000	8	6	4	5	1	2	19	4.33	5.42	5.90	4.31	5.49	0.28
7	500,001 – 1,000,000	2	3	5	4	0	1	10	1.19	2.94	1.92	0.76	0.0	8.02
8	1,000,001 –99,000,000	0	2	2	3	0	2	10	0.00	0.61	0.19	6.98	8.63	1.75
Subtotal		88	111	26	48	12	17	213	3.045	4.195	2.14	3.53	4.24	3.61
Subtotal	Incident Data Only	0	0	0	1	14								
Subtotal	Missing Data	0	0	7	19	2								
Totals		**88**	**111**	**33**	**57**	**28**								

Legacy (proof of concept) Data | **Project Start**

NOTE: 2000 is an active data collection year: departments continue to make contributions. Data excludes contributions in which individual force types were not reported.

3. Pate & Fridell (1991)
   a. Again**, this study uses data from nearly *3* decades back**, the oldest yet. Is there not a more recent source to compare?
   No, there isn't. If there had been, I would have used it. And where one would expect changes in usage of certain specific types of force (tasers and batons), I noted it.

   b. **Please explain your math around the assertion of 698 instances of major force used by the MPD per 1000 officers**. Today, the MPD has ~461 officers, and in 2018, there were 217 individuals who experienced use of force by MPD officers. The MPD accountability report did not distinguish between major use of force vs non-major use of force. Even at a rate of per 1000 officers, the rate would be closer to 4 instances out of 10 as opposed to 7 out of 10 that you cite.

   If you bother to read what I wrote, I specified both 479 contacts where major force was used per 1000 officers and 698 major force instances per 1000 officers. And note that in the e-mail, I carefully define what is meant by the words "contact" and "instance".

   The Pate & Fridell (1991) numbers are explicitly in terms of counts for each type of use of force (what I've termed use of force "instances"), NOT individuals who experienced use of force. You need to compare apples to apples, not apples to oranges.

   Here's the comparable table from the 2018 MPD Use of Force report.

Force	Q1	Q2	Q3	Q4	Total	%
Decentralization/Takedown (e.g. officer pushing or pulling a subject to the ground)	37	55	41	42	175	54.0%
Active Counter Measures (e.g. officer striking a subject with hand, forearm, foot or kneee)	18	18	15	22	73	22.5%
Taser Deployment	4	8	7	8	27	8.3%
Hobble Restraints (a belt system which restricts a subject's ability to kick at officers, squad windows, etc)	8	8	11	9	36	11.1%
OC (i.e. Pepper) Spray Deployment	5	1	1	2	9	2.8%
Baton Strike	0	0	0	1	1	0.3%
K9 Bite	0	0	0	0	0	0.0%
Firearm Discharged Toward Suspect	0	0	1	0	1	0.3%
Impact Munition (firearm delivered projectile launched at a lower than normal velocity)	0	1	1	0	2	0.6%
Total	**72**	**91**	**77**	**84**	**324**	**100.0%**

As you can see, the total for 2018 is 324.

As an aside, I'll note that you seem to have the current number of MPD officers somewhat wrong. Brenda Konkel, PSRC Chair, had it at 482 in a June, 2020 post. Note that the number of MPD officers has increased since 2018 (i.e. using the current number would slightly decrease the calculated rate per officer).

c. There were multiple breakdowns of use of force within the study, including by scope of size (County, City, and State), among others, that showed very different rates than the ones you quoted.

What is your point here? There are tables in this paper showing many different things - including rates of use of force in county, city, and state agencies of different sizes. I used what would be directly comparable: municipal police departments of comparable size to Madison. I fail to see why you're bringing up other categories that show different rates. The rate of use of force in small sheriff's departments is irrelevant.

Which page are you getting those numbers from,

It's not like there are tons of relevant tables in this paper, showing data that can be used for a comparison with Madison (i.e., normalized to 1000 officers, as I specified).
There's Table 6.1 (page 4-13), that includes data for each type of use of force for city police departments. And there's table 6.3, that includes data for each type of force for city police departments by agency size. Note that MPD has >250 officers, so that's the data is used from Table 6.3 (page 4-22).

The use of force data that MPD provides are only for certain types of use of force - what MPD terms "recordable force". This basically corresponds to major use of force. It doesn't include things like pain compliance holds, escort holds, handcuffing, etc. So if you want a valid comparable number from the Pate & Fridell (1991) paper, you need to sum the categories of force that correspond to the data that MPD makes public in its use of force reports.

and why did you choose that set of data to compare?

Umm. Perhaps I should have compared MPD with data from small sheriff's departments?
The nonsarcastic answer is I used data for city police departments, and data for city police departments with >250 officers, because that's what MPD is.

Overall, **I would strongly question the validity of using this data to assert that MPD use of force is above average**. At best, I could potentially see this data showing that the MPD use of force is higher than the average *in the past*,

Your implicit underlying argument here appears to rest on an assumption that rates of use of force might be going up nationally and were lower in the past. There's no evidence of that - if anything, factors point in the opposite direction.

but even then my questions about the data above indicate that in some regards, MPD is *below* average in use of force incidents (International Associated Chief of Police report).
As I pointed out, you appear to have misinterpreted their data (though, understandably, that would be easy to do) and disregarded what IACP explicitly stated.

I'd be more comfortable interpreting the data this way if there was a more recent comparison to the use of force around the nation. Anecdotal review, such as what I found with Milwaukee, could at least give some picture as to how MPD compares cities of similar size (though I realize Milwaukee is 2x as large as Madison) in the modern era.

An "anecdotal review" of a single, arbitrarily chosen, larger city is more valid/scientific than multiple surveys of many cities? How silly of me not to recognize that!
"In the modern era"? Come on man. It's not like there been some transformational shift in policing eras since the late 1990s.

Though if data could be gathered from a fairly large set of cities at present, that would obviously provide a good point of comparison.

-Luke

From: Kapusta-Pofahl, Karen <KKapusta-Pofahl@cityofmadison.com>
Sent: Monday, January 4, 2021 12:43 PM
Subject: Fw: Recommendation Findley #42 and frequency of MPD use of force

[BCC BWC]
There was a request that more information from Greg regarding MPD use of force be provided to the committee. I am forwarding that information here and will be attaching it to Legistar.

From: Gregory Gelembiuk <gwgelemb@wisc.edu>
Sent: Monday, January 4, 2021 3:18:52 AM
To: Kapusta-Pofahl, Karen
Subject: Fw: Recommendation Findley #42 and frequency of MPD use of force

Here's the info you requested.

Greg

From: Gregory Gelembiuk
Sent: Thursday, May 2, 2019 4:01 PM

To: jacquelyn.hunt@gmail.com <jacquelyn.hunt@gmail.com>; christian.albouras@gmail.com <christian.albouras@gmail.com>; jbvang1@gmail.com <jbvang1@gmail.com>; Keith Findley <keith.findley@wisc.edu>; linda@emum.org <linda@emum.org>; marios.sierra@gmail.com <marios.sierra@gmail.com>; braunginn@gmail.com <braunginn@gmail.com>; sasaiz@uwalumni.com <sasaiz@uwalumni.com>; suekp93@charter.net <suekp93@charter.net>; tbrown@ulgm.org <tbrown@ulgm.org>; veronicaf@unidoswi.org <veronicaf@unidoswi.org>; lyudice23@gmail.com <lyudice23@gmail.com>; dokithia@gmail.com <dokithia@gmail.com>
Subject: Recommendation Findley #42 and frequency of MPD use of force

Dear Committee Members,

Since Keith Findley's proposed recommendation on distraction blows (Findley #42) is on the agenda for today, I thought I'd write with a bit of information on MPD use of force.
Findley #42 states: *"MPD should reconsider its training protocols and policy regarding the use of "distraction blow." If such blows are authorized, officers should be provided more guidance on the allowable uses of such blows. Any distraction blows policy should prohibit strikes to the head or strikes to individuals already in handcuffs."*

MPD recently released its "Accountability Report", asserting a low rate of use of force.
http://www.cityofmadison.com/police/documents/AccountabilityRpt2018.pdf
I'd previously pointed out major issues with some of MPD's assertions in the report.

Here, I'll add something further. A major deficiency in the report was the lack of any kind of comparison between MPD's rate of use of major force and that of other departments.

A small number of administrative surveys of law enforcement departments have been conducted to study patterns of use of force nationally. Three of the four published surveys contain data that provide some basis for comparison. For any legitimate comparison, the definitions (for use of force) used in a survey must be sufficiently similar to those used by MPD.

Overall, it appears that the rate of use of major force by MPD might be somewhat higher than average.

A study by Alpert & MacDonald (2001) provides one point of comparison.
https://drive.google.com/file/d/1UiBtkvVfuX_ahV9MTCbjgIOVJxDuyXmu/view?usp=sharing
Data was obtained from 265 law enforcement agencies (the majority were municipal police department, but sheriff's departments were also included) in 1996. Force was defined as "the use of physical force, a chemical agent, or a weapon to control a suspect" - this matches up adequately to MPD's "recordable force" categories to provide a legitimate comparison. Data on the rate of use of force was presented normalized to city population (some kind of normalization is required for any sensible analysis). The study found a median rate of 76 use of force instances annually per 100,000 residents.

MPD provided data on the number of citizen contacts in 2017 and 2018 that involved use of recordable (major) force, and also delineated the types of force used, noting that some cases involved application of more than one type of force. I'll term the latter the number of use of force instances, which will be higher than the number of contacts in which force was used.

MPD had an annual rate of 132 major force instances per 100,000 residents and 90.7 contacts where major force was used per 100,000 residents.

Another survey providing a basis of comparison was conducted by the International Associated of Chief of Police (IACP).
https://www.theiacp.org/sites/default/files/2018-08/2001useofforce.pdf
Their survey, basically conducted from 1994 through 1999, included the following types of force: "Physical Force (the use of fists, feet, hands, etc.)", "Chemical Force (the discharge of MACE, CAPSTUN, OC, CS, and CN devices)", "Electronic Force (the discharge of TASER, Stun Gun, or other electronic weapons)", "Impact Force (the use of a baton, other impact weapons)", and "Firearm (lethal) Force (the discharge of any kind of firearm)". These definitions should capture all the same cases as MPD's "recordable force". IACP provides data on rate of use of force normalized to number of calls for service. They found a national average rate, among departments surveyed, of ~4 instances of major use of force per 10,000 calls for service.

MPD's numbers showed an annual rate of 22.7 instances of major force per 10,000 calls for service and 15.6 contacts where major force was used per 10,000 calls for service.

Finally, I'll note a survey of 529 agencies conducted in 1991 by Pate & Fridell.
https://www.ncjrs.gov/pdffiles1/Digitization/146825NCJRS.pdf

They surveyed a wider range of categories of use of force, but numbers for comparison with MPD can be obtained by restricting consideration to the categories "shot", "electrical devices", "chemical agents", "batons", "other impact devices", "bodily force", and "dog attacks". They provided data normalized to number of officers. Across all municipal police departments, they found an annual rate of 362.8 major force instances per 1000 officers. Across municipal police departments with 250 or more officers, they found an annual rate of 205.5 major force instances per 1000 officers.

MPD had an annual rate of 698 major force instances per 1000 officers and 479 contacts where major force was used per 1000 officers.

For departments with 250 or more sworn officers, the annual rates of use of specific types of force per 1000 officers:
bodily force 106.3
chemical 41.8
electrical 4.9
other impact 3.9
baton 28.0

MPD's rates per 1000 officers:
bodily force [i.e. includes "takedowns" and "active counter measures"] 536
chemical 30
electrical 52
other impact 6.4
baton 2.1

The differences in rates of use of batons and electrical devices might largely reflect the fact that the Pate and Fridell survey was conducted in 1991. Since that time, there's been a decline in baton use nationally, while Taser use has greatly increased.

Sincerely,

Dr. Gregory Gelembiuk