BOISE POLICE DEPARTMENT
MAYOR: Lauren McLean | CHIEF: Ryan Lee

MEMO

TO: Chief Maris Herold, Boulder Police Department
Director Bradley Riggin, Police Communications Manager

FROM: Lieutenant James Quackenbush, Boise Police Department

DATE: 8/17/2023

RE: Police-Community Interaction Survey (PCIS) Results

PROJECT OVERVIEW

At your invitation, I extended my research into Boulder that originated in the City of Boise last January. I sought answers to the following questions:

> *Q_1: How does the amount of time police officers spend addressing a call for service effect community satisfaction?*
>
> *Q_2: How does the amount of time that police officers spend addressing a call for service effect community members' perception of procedurally just behavior?*

The proposal was vetted by the University of North Carolina at Chapel Hill's Office of Human Research Ethics. As part of the project, I administered the Police-Community Interaction Survey (PCIS). This instrument, developed by professional researchers, measures procedurally just behavior on the part of police officers, as well as levels of community satisfaction with services.[1] The PCIS has demonstrated high levels of reliability and validity in measuring officer attributes such as empathy, competence, and emotional control. Similarly, it evaluates public attitudes toward the police.

The Boise study provided evidence of a statistically significant relationship between the amount of time officers spent on calls for service, and both procedurally just behavior and community satisfaction levels. I was unable to replicate these findings in Boulder. However, the PCIS results specific to Boulder indicate that:

> ***When people call the Boulder Police Department for assistance, they are overwhelmingly satisfied with the results.***

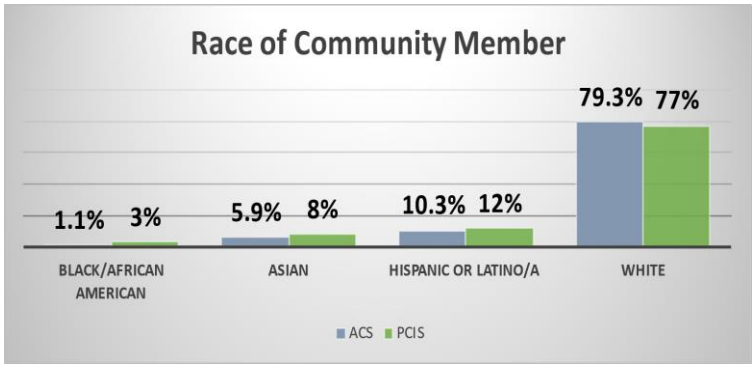
[1] Rosenbaum, Dennis P., Jon Maskaly, Daniel S. Lawrence, Justin H. Escamilla, Georgina Enciso, Thomas E.Christoff, and Chad Posick. "The Police-Community Interaction Survey: Measuring Police Performance in New Ways." *Policing: An International Journal* 40, no. 1 (2017): 112-27.

METHODOLOGY

Dr. Daniel Reinhard, Chief Data Analyst for your department, provided a sampling frame of **26,641** calls for service received by the Boulder Police and Fire Communications Center between February 1 and July 31, 2021. I pulled a random sample of **1000** CFS to obtain **102** completed surveys regarding interactions with police, and **198** completed surveys related to interactions with call takers. The overall response rate was **28.77%.** I excluded law enforcement, minors, institutionalized individuals, people who did not have actual contact (either in person or over the phone) with either BPD officers or communications center call takers, and those not capable of informed consent. All participants answered questions over the phone. I provided interpretive services as necessary—two surveys were conducted in Spanish.

I measured the independent variable—time officers spent on each call for service—with time stamps automatically entered in the Computer-Aided Dispatch (CAD) system. In most circumstances, officers recorded when they arrived on scene. On nineteen occasions, however, time stamps either reflected when officers were enroute (six times) or assigned (thirteen times) to the call. This is typically due to officers neglecting to report that they arrived on scene or handling the issue over the phone. Arrival times can be cross-checked using automatic vehicle locator (AVL) information in these instances. I confirmed the accuracy of time data with Police Communications Manager Bradley Riggin.

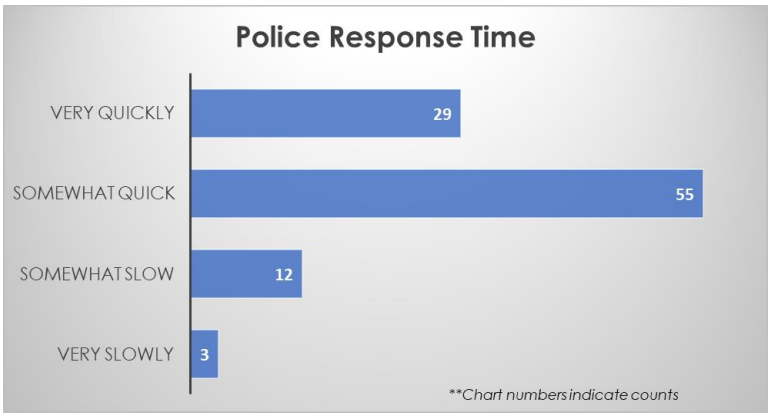
SURVEY RESPONSE



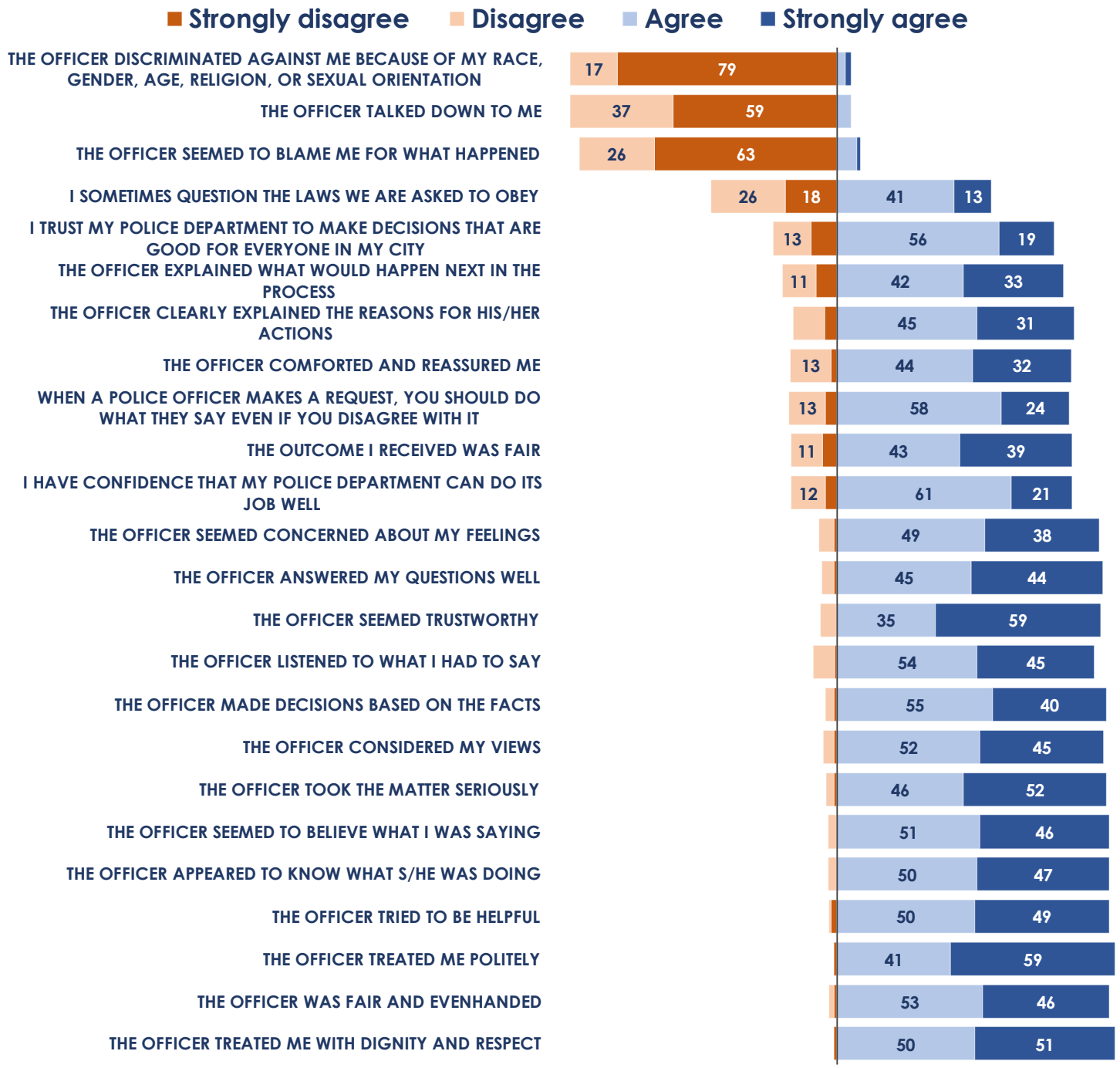
Demographics were representative of Boulder as a whole; the sample was approximately half male (52%) and half female (48%).[2] Not all respondents provided their racial identity, but of those who did, 77% were white, 12% Hispanic or Latino/a, 3% African American, and 8% Asian. Of the interactions, 73% of those involving crime reports were a property offense, 27% a person offense. Most respondents were Boulder City residents (62%). Age, annual income, and education levels were diverse. In terms of police officer demographics, respondents perceived officers to be male most (84%) of the time. Community members generally perceived officers to be white (90%), male (84%), and between 30 and 40 years of age (61%).

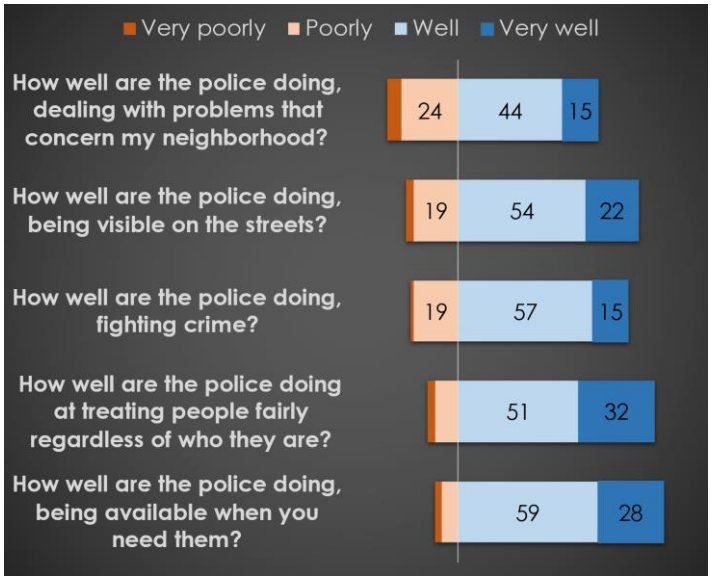
[2] "Boulder city, Colorado," United States Census Bureau, accessed September 30, 2022, https://www.census.gov/quickfacts/fact/table/bouldercitycolorado/PST045221

There was only one report each of a force event and/or an officer verbally interrupting someone. On just three occasions an officer was reported to have "raised his/her voice". **Ninety-seven percent** (**97%**) of the time officers greeted community members and introduced themselves, and **ninety-four** percent (**94%**) of the time officers thanked community members after the interaction. Large majorities agreed with the statements "*the officer answered my questions well*" and "*I have confidence that my police department can do its job well*" (**95%** and **84%,** respectively). **Eighty-five percent** stated that BPD responded either "*somewhat quick*" or "*very quickly*".



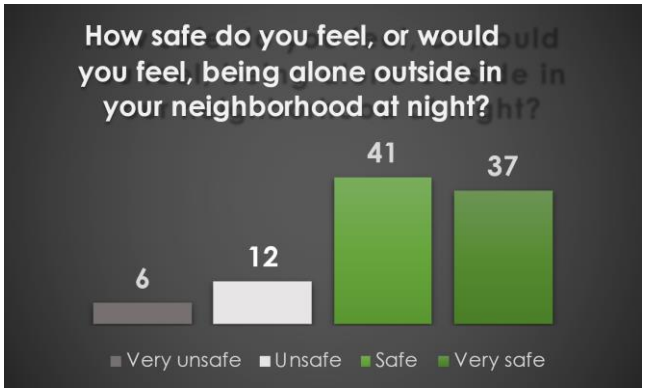
The PCIS asks community members to evaluate a series of statements on a Likert-scale regarding public safety in general, their attitudes toward authority, perceptions of officer behavior, and opinions on police legitimacy. On the tables that follow, the numbers shown represent raw counts of responses to survey statements, not overall percentages. Raw counts of less than ten are not specifically marked on the visualizations in the interests of clarity.





In terms of service quality, BPD generally received positive marks from respondents. The majority felt patrol officers are visible, responsive to neighborhood concerns, and effective in addressing criminal problems. Officers are also reported to be considerate and equitable in their approach. **Eighty-one percent** report feeling safe, when alone, after dark in their neighborhood.

Officers also enjoy a fair degree of legitimacy within the community. Ninety-two percent (**92%**) reported that they would work with the police to identify someone committing a crime. A majority (**66 %**) indicated interest in active neighborhood involvement (association meetings, block watches, etc.)



With few exceptions— community members reported strong 'customer service' delivery. BPD officers *took the matter seriously* (**96%**), *made decisions based on the facts* (**96%**), and *treated people with dignity and respect* (**99%**). Eighty-four percent (84%) agreed with the statement "the outcome I received was fair". **Ninety-six** (**96%**) reported they were either 'satisfied' or 'very satisfied' with they way they were treated by BPD officers. In interactions with Boulder Police and Fire Communications Center call takers, community members reported being either 'satisfied' or 'very satisfied' with the encounter **ninety-four** (**94%**) percent of the time.

ANALYSIS

The original Boise study revealed a statistically significant relationship between the amount of time that officers spent on calls for service and how community members perceived the interaction—both in terms of procedurally just behavior and overall satisfaction. "Procedural Justice Score" was a construct developed based on responses to survey questions related to perceptions of procedurally just behavior on the part of officers. "Satisfaction Score" was a construct developed based on responses to survey questions related to community satisfaction levels. Both constructs were developed based on supporting academic literature.

Both descriptive and inferential statistics of study variables are available in the appendix. To summarize, in the original exploratory Boise study, a *t*-test indicated a statistically significant relationship between the amount of time officers spent on calls for service and both perceptions of procedurally just behavior ($p = .006$, $t = 3.524$) as well as satisfaction ($p = .075$, $t = 2.738$), if the encounter lasted more than five minutes. I was unable to replicate these findings with the data that I collected in Boulder (i.e., there was not an indication of a statistically significant relationship).

CONCLUSION

While the evidence that I gathered in Boulder does not indicate support in terms of a statistically significant relationship between the amount of time officers spend on calls for service, perceptions of procedurally just behavior, and community satisfaction levels, administration of the PCIS is still a worthwhile pursuit. The sample resembles closely the demographics of the Boulder population and provides valuable feedback in terms of how people feel about their interactions with the Boulder Police and Fire Communications Center as well as Boulder Police officers. The sample represented approximately **eighty hours** of total BPD officer time investment, with an average of **forty-seven minutes and twelve seconds** spent by officers on each call for service.

There are some indications for improvement (only 41% reported that the officer made helpful referrals, and 54% stated that the officer provided useful tips), however, it is also clear that the overall perception of BPD officers is positive.

The large amount of aggregated data I have collected through administering the PCIS are available for further review by department analysts. This information can play a critical role in further understanding how the public perceives the efforts of the Boulder Police Department and serve as a guide moving forward as an organization.

APPENDIX

Table 1

Descriptive Statistics - City of Boise Study

Variables (dependent as interval)	*N*	Min	Max	Range	*M*	SD
Procedural Justice Score	98	23	44	21	41.18	4.10
Satisfaction Score	88	68.58	122	53.42	110.05	10.77
Seconds Officer Spent on CFS	101	61	27662	27601	3033.40	4266.66
Seconds Officer Spent on CFS (> 5 minutes)	93	319	27662	27343	3281.42	4359.09

Variables (dependent as dichotomous)	*N*	*SEM*	*M*	SD
Seconds Officer Spent on CFS/Procedural Justice "No"[a]	3	400.07	1014.33	692.94
Seconds Officer Spent on CFS/Procedural Justice "Yes"	94	451.24	3139.47	4374.92
Seconds Officer Spent on CFS (> 5 minutes)/Procedural Justice "Yes"	87	478.31	3381.08	4461.41
Seconds Officer Spent on CFS/Satisfaction "No"[b]	2	620	1193	876.81
Seconds Officer Spent on CFS/Satisfaction "Yes"	86	490.33	3147.60	4547.16
Seconds Officer Spent on CFS (> 5 minutes)/Satisfaction "Yes"	79	523.45	3414.41	4652.52

[a] The summaries for Seconds Officer Spent on CFS/Procedural Justice "No" and Seconds Officer Spent on CFS (>5minutes)/Procedural Justice "No" were identical

[b] The summaries for Seconds Officer Spent on CFS/Satisfaction "No" and Seconds Officer Spent on CFS (>5minutes)/Satisfaction "No" were identical

Table 2

Inferential Statistics - Satisfaction - City of Boise Study

Regression	*F*	Sig.	Adj. R^2
Seconds Officer Spent on CFS/Satisfaction Score	0.375	0.542	-0.007
Seconds Officer Spent on CFS (> 5 minutes)/Satisfaction Score	0.727	0.396	-0.003

Two-tailed *t*-tests (Equal variances not assumed)	*t*	Sig.
Seconds Officer Spent on CFS/Satisfaction	2.473	0.102
Seconds Officer Spent on CFS (> 5 minutes)/Satisfaction	-2.738	0.074*

* $p < .10$

Table 3

Inferential Statistics - Procedural Justice - City of Boise Study

Regression	*F*	Sig.	Adj. R^2
Seconds Officer Spent on CFS/Procedural Justice Score	1.431	0.235	0.004
Seconds Officer Spent on CFS (> 5 minutes)/Procedural Justice Score	1.907	0.171	0.010

Two-tailed *t*-tests (Equal variances not assumed)	*t*	Sig.
Seconds Officer Spent on CFS/Procedural Justice	-3.524	0.006**
Seconds Officer Spent on CFS (> 5 minutes)/Procedural Justice	-3.795	0.003**

** $p < .01$

Table 4

Descriptive Statistics - City of Boulder Study

Variables (dependent as interval)	*N*	Min	Max	Range	*M*	SD
Overall Satisfaction	102	1	4	3	3.53	0.609
Procedural Justice Score	100	14	44	30	37.69	5.51
Satisfaction Score	73	52.76	121	68.24	100.67	12.65
Seconds Officer Spent on CFS	102	44	16196	16152	2832.51	3239.15
Seconds Officer Spent on CFS (> 5 minutes)	95	329	16196	15867	3031.18	3269.64

Variables (dependent as dichotomous)	*N*	*SEM*	*M*	SD
Seconds Officer Spent on CFS/Procedural Justice "No"[a]	2	2624.00	4414.00	3710.90
Seconds Officer Spent on CFS/Procedural Justice "Yes"	100	324.24	2800.65	3242.44
Seconds Officer Spent on CFS (> 5 minutes)/Procedural Justice "Yes"	93	339.68	3001.44	3275.79
Seconds Officer Spent on CFS/Satisfaction "No"[b]	2	3048	3990	4310.52
Seconds Officer Spent on CFS/Satisfaction "Yes"	100	323.86	2809.13	3238.63
Seconds Officer Spent on CFS (> 5 minutes)/Satisfaction "Yes"	93	339.21	3010.56	3271.17

[a] The summaries for Seconds Officer Spent on CFS/Procedural Justice "No" and Seconds Officer Spent on CFS (>5minutes)/Procedural Justice "No" were identical

[b] The summaries for Seconds Officer Spent on CFS/Satisfaction "No" and Seconds Officer Spent on CFS (>5minutes)/Satisfaction "No" were identical

Table 5

Inferential Statistics - Satisfaction - City of Boulder Study

Regression	*F*	Sig.	Adj. R^2
Seconds Officer Spent on CFS/Satisfaction Score	0.762	0.386	-0.003
Seconds Officer Spent on CFS (> 5 minutes)/Satisfaction Score	0.797	0.375	-0.003

Two-tailed *t*-tests (Equal variances not assumed)	*t*	Sig.
Seconds Officer Spent on CFS/Satisfaction	0.385	0.765
Seconds Officer Spent on CFS (> 5 minutes)/Satisfaction	0.319	0.802

Table 6

Inferential Statistics - Procedural Justice - City of Boulder Study

Regression	*F*	Sig.	Adj. R^2
Seconds Officer Spent on CFS/Procedural Justice Score	1.189	0.278	0.002
Seconds Officer Spent on CFS (> 5 minutes)/Procedural Justice Score	1.210	0.274	0.002

Two-tailed *t*-tests (Equal variances not assumed)	*t*	Sig.
Seconds Officer Spent on CFS/Procedural Justice	0.601	0.653
Seconds Officer Spent on CFS (> 5 minutes)/Procedural Justice	0.523	0.691