



Fire and Police Commission

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Memorandum

To: Honorable Members of the Milwaukee Common Council

From: Leon Todd, Executive Director
Barbara Cooley, Research and Policy Analyst

Date: June 12, 2023

RE: MPD/MFD Call Wait Times Report, Q1 2023

This memo is responsive to Common Council File 190001, Amendment 33, "Insert a footnote directing the Executive Director of the Fire & Police Commission to provide quarterly reports to the Common Council on 9-1-1 call wait times, as well as activities, training, and initiatives to reduce 9-1-1 call wait times." Information in this memo has been provided by Tom Maureau of Winbourne Consulting, the City's contractor for developing a PSEP (Public Safety Enhancement Program), with analysis by the FPC Research and Policy Analyst.

Workflow Efficiencies Initiated

On October 11 & 12, 2022, a new Automatic Call Distribution (ACD) workflow was implemented which had a significant positive impact on 9-1-1 call answer performance metrics. This is the fastest way to answer a 9-1-1 call. The Automatic Call Distribution (ACD) automatically drops a 9-1-1 call into an available Call Taker's headset. The call is preceded by two beeps to alert the Call Taker of the incoming call.

Other measures to improve call answer times have included:

1. The PSEP Executive Steering Committee approved the utilization of overtime to ensure MPD had a minimum mandatory number of Call Takers.
2. MPD ECC management of call taking operations was improved.
3. A new Interactive Voice Response (IVR) message was implemented advising 9-1-1 callers to not hang-up and call back.
4. Several MFD initiatives improved the availability of MFD Call Takers thereby reducing the amount of time MPD Call Takers were on hold waiting for MFD to answer.
5. An increase in telecommunicator pay was approved by the City in March 2022 to improve recruitment and retention of telecommunicators going forward. The increase appeared in May 26, 2022 paychecks, retroactive to February 20, 2022, and was followed by a recruitment approximately double the size of the previous recruitment.

Call Answer Standard

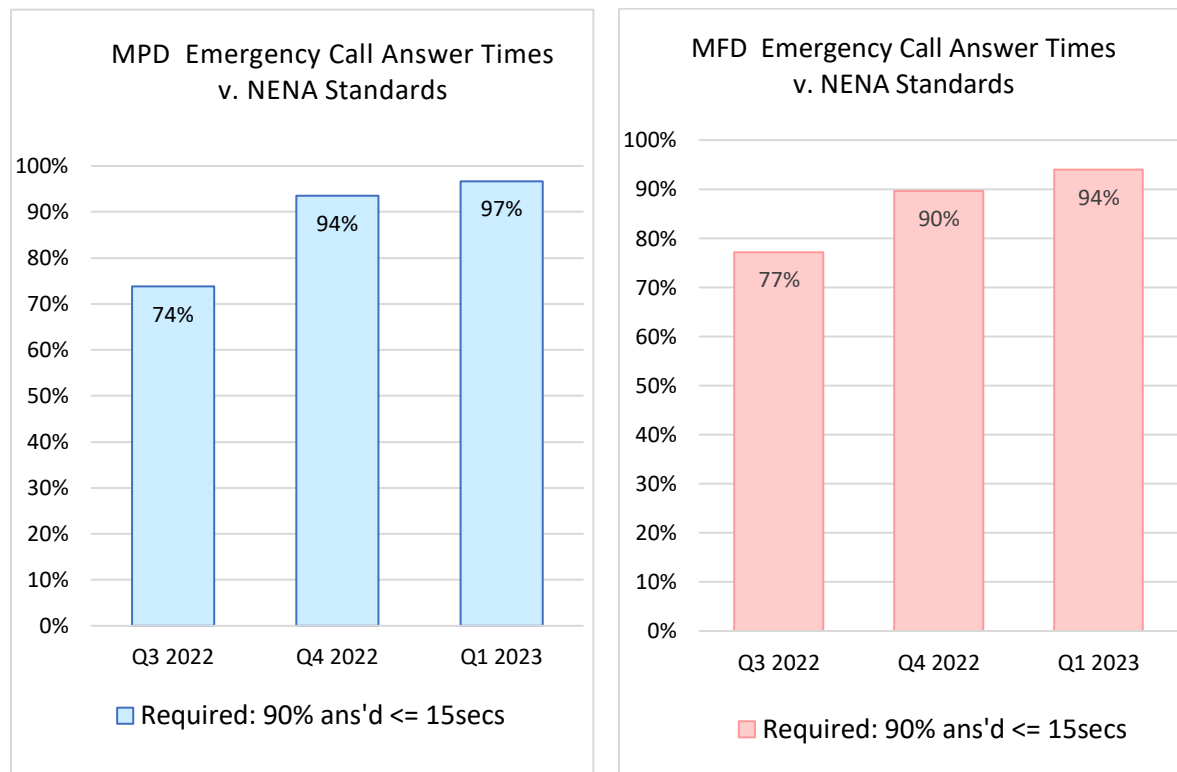
In conjunction with the implementation of the Solacom 9-1-1 system, the PSEP Executive Steering Committee established two primary performance metrics that are National Emergency Number Association (NENA) standards:

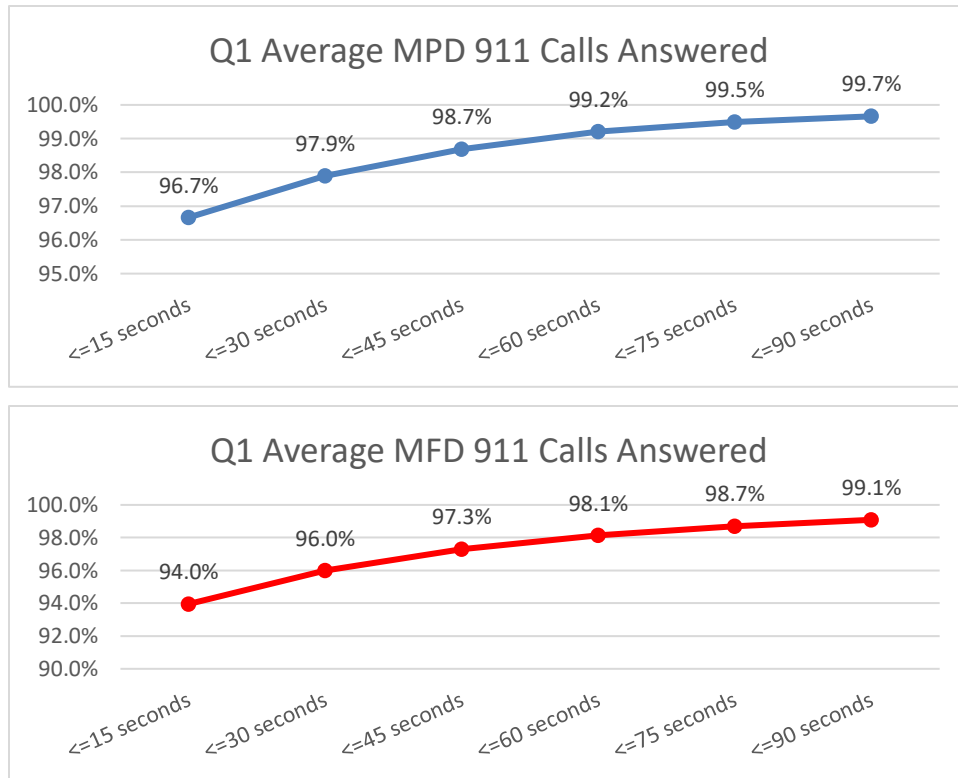
1. 90% of all 9-1-1 calls arriving at the PSAP SHALL be answered within (\leq) 15 seconds
2. 95% of all 9-1-1 calls arriving at the PSAP SHOULD be answered within (\leq) 20 seconds

The Solacom 9-1-1 system monthly reports use the NENA standard as the foundation and then 15 second increments.

Analysis by FPC Staff

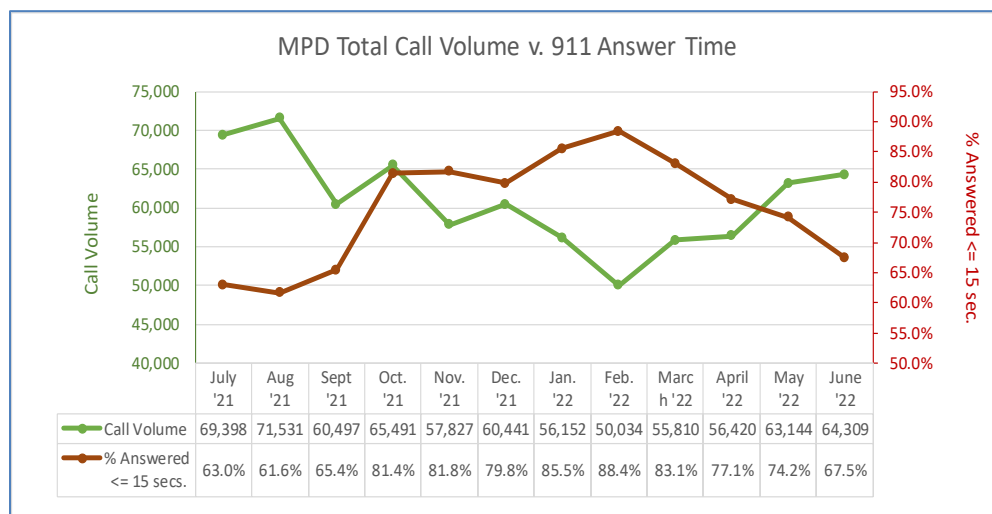
During Q1 2023, both MPD and MFD continued to exceed the NENA standard. MPD exceeded the goal by 7% and MFD exceeded the goal by 4%. This continues to be a striking improvement for both departments over Q4 2021, when percentages of the NENA standard were 81% and 78% respectively. Overall in Q1, 99.7% and 99.1% of MPD and MFD 911 calls, respectively, were answered within 90 seconds.





Effect of Staffing Level on Answer Time

The following graph shows the relationship between MPD total call volume (emergency and non-emergency) and 911 call pickup time from Q3 2021 through Q2 2022. There is a clear inverse relationship between call volume and call pickup time. The staffing level during this period was relatively flat at just over 100 call takers. This result indicated that call takers were working at capacity and there was a need to hire more call takers to reduce call answer time.

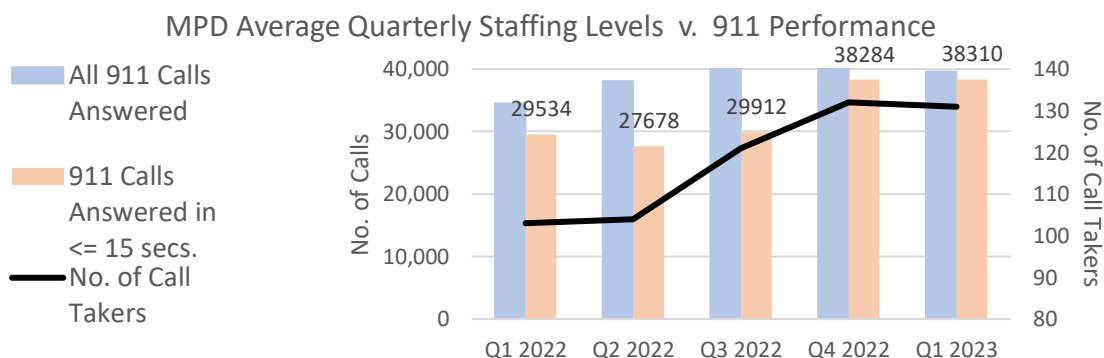


Note: "Total Call Volume" = Emergency + Administrative

Increasing Staffing Levels

The effort to increase the number of call takers for both MPD and MFD has resulted in much improved 911 call answer times, as can be seen in the chart below. That effort included an expedited hiring process as well as a pay increase for telecommunicators in early 2022. The first telecommunicator recruitment after that was more than twice the size of the last recruitment before the pay increase.

It takes 8 weeks from hire for telecommunicators to be fully trained: 5 weeks in classroom and 3 weeks on-the-job. Therefore, we saw the effects of the pay increase and expedited hiring process on call answer times during Q4 of 2022, and that level of performance has continued through Q1 of 2023. The increase in the number of call takers has been dramatic. In Q1 2023 there were 131 call takers, an increase of 27% from 103 in Q1 2022.



Call Taker Turnover Rate

2023 Quarter 1 MPD Call Taker Quit Rates

	Dispatchers	Telecommunicators	All Call Takers
Average no. of employees	68	62	131
Resignations	0	1	1
Quit Rate	0.0%	1.6%	0.8%

A high quit (turnover) rate is an obstacle to maintaining staffing levels. In the first half of 2022, the quit rate for telecommunicators was particularly high, at 31.7%. In the second half (Q3 & Q4) it dropped to 10.9%. Dispatchers had a 0% quit rate in the second half of 2022 and again in Q1 2023. The overall quit rate in Q1 of 2023 has dropped below 1%. The salary increase during 2022 may have contributed to the considerable drop in the quit rate.

The most recent national quit rate in the [U.S. Census](#) for state and local government workers, excluding education, is 12.7%.

Conclusion

Until Q3 2022, the number of 911 calls answered within 15 seconds was inversely related to total call volume, indicating that the current staff of about 100 call takers was working at capacity and

there was a need to increase staffing in order to reach NENA standards. Measures put in place to do so were increasing telecommunicator pay as well as improving processes including an expedited hiring process. These were followed by an approximately doubled size of new telecommunicator applicants, a greatly increased number of hires and a much lower quit rate.

By the end of Q1 2023, the percentage of 911 calls answered in 15 seconds or less exceeded the 90% NENA standard for both MPD and MFD.

Q1 2023 DATA

9-1-1/10-Digit Emergency Calls

MPD /Q1 2023

Incoming MPD 9-1-1 Calls	January	February	March
All Received	42,002	37,055	42,471
Answered	41,083	36,377	41,392
Abandoned	919	678	1,079
Call Backs	807	573	944
MPD Answered 9-1-1 Calls	January	February	March
Average 9-1-1 Call Wait Time	0:00:06	0:00:06	0:00:02
Percent Answered Within 15 sec	96.5%	97.6%	96.0%

MFD Q1 2023

Incoming MFD 9-1-1 Calls	January	February	March
All Received	14,895	13,322	15,116
Answered	14,807	13,267	15,043
Abandoned	88	55	73
Call Backs	1	1	0
MFD Answered 9-1-1 Calls	January	February	March
Average 9-1-1 Call Wait Time	0:00:06	0:00:03	0:00:04
Percent Answered Within 15 sec	93.5%	94.8%	93.6%

9-1-1/10 Digit Call Answer Time**MPD Q1 2023**

MPD Emergency TIME INCREMENT	January			February			March		
	MPD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls	MPD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls	MPD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls
0 - 15 Seconds	39,659	96.5%	96.5%	35,488	97.6%	97.6%	39,741	96.0%	96.0%
16 - 30 Seconds	527	1.3%	97.8%	305	0.8%	98.4%	628	1.5%	97.5%
31 - 45 Seconds	319	0.8%	98.6%	231	0.6%	99.0%	396	1.0%	98.5%
46 - 60 Seconds	197	0.5%	99.1%	149	0.4%	99.4%	266	0.6%	99.1%
61 - 75 Seconds	124	0.3%	99.4%	80	0.2%	99.7%	136	0.3%	99.5%
76 - 90 Seconds	78	0.2%	99.6%	53	0.1%	99.8%	73	0.2%	99.6%
91 - 105 Seconds	37	0.1%	99.7%	24	0.1%	99.9%	68	0.2%	99.8%
106 - 120 Seconds	29	0.1%	99.7%	11	0.0%	99.9%	42	0.1%	99.9%
121 - 150 Seconds	35	0.1%	99.8%	19	0.1%	100.0%	26	0.1%	100.0%
151 - 180 Seconds	14	0.0%	99.8%	8	0.0%	100.0%	11	0.0%	100.0%
181 - 210 Seconds	8	0.0%	99.9%	6	0.0%	100.0%	5	0.0%	100.0%
211 - 240 Seconds	13	0.0%	99.9%	1	0.0%	100.0%	0	0.0%	100.0%
241 - 270 Seconds	11	0.0%	99.9%	1	0.0%	100.0%	0	0.0%	100.0%
271 - 300 Seconds	16	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
301 - 330 Seconds	15	0.0%	100.0%	1	0.0%	100.0%	0	0.0%	100.0%
331 - 360 Seconds	1	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
361 - 390 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
391 - 420 Seconds	0	0.0%	100.0%	1	0.0%	100.0%	0	0.0%	100.0%
421 - 450 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
451 - 480 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
481 - 510 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
511 - 540 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
541 - 570 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
571 - 600 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
601 - 1200 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
1201 - 1800 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
> 1800 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
Total Answered Calls	41,083	100.0%		36,378	100.0%		41,392	100.0%	

MFD Q1 2023

MFD Emergency TIME INCREMENT	January				February				March			
	MFD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls	MFD CALLS ANSWERED	MFD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls	MFD CALLS ANSWERED	MFD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls	MFD CALLS ANSWERED
0 - 15 Seconds	13,848	93.5%	93.5%	12,575	94.8%	94.8%	94.8%	14,087	93.6%	93.6%	93.6%	93.6%
16 - 30 Seconds	315	2.1%	95.7%	249	1.9%	1.9%	96.7%	314	2.1%	2.1%	95.7%	95.7%
31 - 45 Seconds	187	1.3%	96.9%	163	1.2%	1.2%	97.9%	217	1.4%	1.4%	97.2%	97.2%
46 - 60 Seconds	130	0.9%	97.8%	98	0.7%	0.7%	98.6%	130	0.9%	0.9%	98.0%	98.0%
61 - 75 Seconds	84	0.6%	98.4%	68	0.5%	0.5%	99.1%	93	0.6%	0.6%	98.7%	98.7%
76 - 90 Seconds	68	0.5%	98.8%	41	0.3%	0.3%	99.4%	58	0.4%	0.4%	99.0%	99.0%
91 - 105 Seconds	50	0.3%	99.2%	28	0.2%	0.2%	99.7%	48	0.3%	0.3%	99.4%	99.4%
106 - 120 Seconds	37	0.2%	99.4%	16	0.1%	0.1%	99.8%	31	0.2%	0.2%	99.6%	99.6%
121 - 150 Seconds	36	0.2%	99.6%	20	0.2%	0.2%	99.9%	40	0.3%	0.3%	99.8%	99.8%
151 - 180 Seconds	25	0.2%	99.8%	3	0.0%	0.0%	100.0%	19	0.1%	0.1%	100.0%	100.0%
181 - 210 Seconds	9	0.1%	99.9%	3	0.0%	0.0%	100.0%	5	0.0%	0.0%	100.0%	100.0%
211 - 240 Seconds	9	0.1%	99.9%	2	0.0%	0.0%	100.0%	1	0.0%	0.0%	100.0%	100.0%
241 - 270 Seconds	4	0.0%	100.0%	1	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
271 - 300 Seconds	3	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
301 - 330 Seconds	2	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
331 - 360 Seconds	0	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
361 - 390 Seconds	0	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
391 - 420 Seconds	0	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
421 - 450 Seconds	0	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
451 - 480 Seconds	0	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
481 - 510 Seconds	0	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
511 - 540 Seconds	0	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
541 - 570 Seconds	0	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
571 - 600 Seconds	0	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
601 - 1200 Seconds	0	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
1201 - 1800 Seconds	0	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
> 1800 Seconds	0	0.0%	100.0%	0	0.0%	0.0%	100.0%	0	0.0%	0.0%	100.0%	100.0%
Total Answered Calls	14,807	100.0%		13,267	100.0%			15,043	100.0%			

Non-Emergency/Administrative Calls

MPD Q1 2023

Incoming MPD Non-Emergency Calls	January	February	March
Answered	17,326	14,907	17,087
MPD Answered Non-Emergency Calls	January	February	March
Average Non-Emergency Call Wait Time	0:00:18	0:00:11	0:00:21

MFD Q1 2023

Incoming MFD Non-Emergency Calls	January	February	March
Answered	1,850	1,612	1,850
MFD Answered Non-Emergency Calls	January	February	March
Average Non-Emergency Call Wait Time	0:00:06	0:00:11	0:00:05

Non-Emergency/Administrative Call Answer Time**MPD Q1 2023**

MPD Admin	January			February			March		
	MPD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls	MPD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls	MPD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls
TIME INCREMENT									
0 - 15 Seconds	15,102	87.2%	87.2%	13,411	89.8%	89.8%	14,469	84.7%	84.7%
16 - 30 Seconds	345	2.0%	89.2%	236	1.6%	91.4%	347	2.0%	86.7%
31 - 45 Seconds	289	1.7%	90.8%	218	1.5%	92.8%	312	1.8%	88.5%
46 - 60 Seconds	269	1.6%	92.4%	162	1.1%	93.9%	263	1.5%	90.1%
61 - 75 Seconds	181	1.0%	93.4%	166	1.1%	95.0%	209	1.2%	91.3%
76 - 90 Seconds	165	1.0%	94.4%	111	0.7%	95.8%	195	1.1%	92.4%
91 - 105 Seconds	126	0.7%	95.1%	78	0.5%	96.3%	143	0.8%	93.3%
106 - 120 Seconds	105	0.6%	95.7%	86	0.6%	96.9%	155	0.9%	94.2%
121 - 150 Seconds	188	1.1%	96.8%	131	0.9%	97.8%	203	1.2%	95.4%
151 - 180 Seconds	139	0.8%	97.6%	85	0.6%	98.3%	159	0.9%	96.3%
181 - 210 Seconds	87	0.5%	98.1%	78	0.5%	98.8%	130	0.8%	97.1%
211 - 240 Seconds	80	0.5%	98.6%	48	0.3%	99.2%	89	0.5%	97.6%
241 - 270 Seconds	65	0.4%	98.9%	27	0.2%	99.4%	78	0.5%	98.0%
271 - 300 Seconds	40	0.2%	99.2%	17	0.1%	99.5%	70	0.4%	98.4%
301 - 330 Seconds	28	0.2%	99.3%	15	0.1%	99.6%	65	0.4%	98.8%
331 - 360 Seconds	22	0.1%	99.5%	13	0.1%	99.7%	46	0.3%	99.1%
361 - 390 Seconds	23	0.1%	99.6%	12	0.1%	99.7%	28	0.2%	99.3%
391 - 420 Seconds	16	0.1%	99.7%	8	0.1%	99.8%	22	0.1%	99.4%
421 - 450 Seconds	13	0.1%	99.8%	7	0.0%	99.8%	12	0.1%	99.5%
451 - 480 Seconds	9	0.1%	99.8%	3	0.0%	99.9%	22	0.1%	99.6%
481 - 510 Seconds	4	0.0%	99.8%	6	0.0%	99.9%	17	0.1%	99.7%
511 - 540 Seconds	3	0.0%	99.8%	5	0.0%	99.9%	10	0.1%	99.7%
541 - 570 Seconds	7	0.0%	99.9%	5	0.0%	100.0%	8	0.0%	99.8%
571 - 600 Seconds	3	0.0%	99.9%	1	0.0%	100.0%	5	0.0%	99.8%
601 - 1200 Seconds	13	0.1%	100.0%	5	0.0%	100.0%	30	0.2%	100.0%
1201 - 1800 Seconds	4	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
> 1800 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
Total Answered Calls	17,326	100.0%		14,934	100.0%		17,087	100.0%	

MFD Q1 2023

MFD Admin		January				February				March			
TIME INCREMENT	MFD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls	MFD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls	MFD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls	MFD CALLS ANSWERED	Individual % of Calls	Cumulative % of Calls	
0 - 15 Seconds	1,756	94.9%	94.9%	1,527	94.7%	94.7%	1,749	94.5%	94.5%				
16 - 30 Seconds	22	1.2%	96.1%	23	1.4%	96.2%	15	0.8%	95.4%				
31 - 45 Seconds	19	1.0%	97.1%	21	1.3%	97.5%	26	1.4%	96.8%				
46 - 60 Seconds	9	0.5%	97.6%	12	0.7%	98.2%	9	0.5%	97.2%				
61 - 75 Seconds	9	0.5%	98.1%	10	0.6%	98.8%	10	0.5%	97.8%				
76 - 90 Seconds	7	0.4%	98.5%	6	0.4%	99.2%	7	0.4%	98.2%				
91 - 105 Seconds	4	0.2%	98.7%	1	0.1%	99.3%	6	0.3%	98.5%				
106 - 120 Seconds	2	0.1%	98.8%	2	0.1%	99.4%	6	0.3%	98.8%				
121 - 150 Seconds	7	0.4%	99.2%	2	0.1%	99.5%	2	0.1%	98.9%				
151 - 180 Seconds	7	0.4%	99.6%	4	0.2%	99.8%	5	0.3%	99.2%				
181 - 210 Seconds	1	0.1%	99.6%	3	0.2%	99.9%	3	0.2%	99.4%				
211 - 240 Seconds	5	0.3%	99.9%	0	0.0%	99.9%	2	0.1%	99.5%				
241 - 270 Seconds	0	0.0%	99.9%	0	0.0%	99.9%	2	0.1%	99.6%				
271 - 300 Seconds	1	0.1%	99.9%	1	0.1%	100.0%	2	0.1%	99.7%				
301 - 330 Seconds	0	0.0%	99.9%	0	0.0%	100.0%	1	0.1%	99.7%				
331 - 360 Seconds	0	0.0%	99.9%	0	0.0%	100.0%	3	0.2%	99.9%				
361 - 390 Seconds	1	0.1%	100.0%	0	0.0%	100.0%	0	0.0%	99.9%				
391 - 420 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	99.9%				
421 - 450 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	1	0.1%	99.9%				
451 - 480 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	99.9%				
481 - 510 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	99.9%				
511 - 540 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	99.9%				
541 - 570 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	99.9%				
571 - 600 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	1	0.1%	100.0%				
601 - 1200 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%				
1201 - 1800 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%				
> 1800 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%				
Total Answered Calls		1,850	100.0%		1,612	100.0%	1,850	100.0%					