



Fire and Police Commission

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Memorandum

To: Honorable Members of the Milwaukee Common Council

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

Date: February 19, 2024

RE: MPD/MFD Call Wait Times Report, Q4 2023

This memo is responsive to Common Council File 190001, Amendment 33, “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

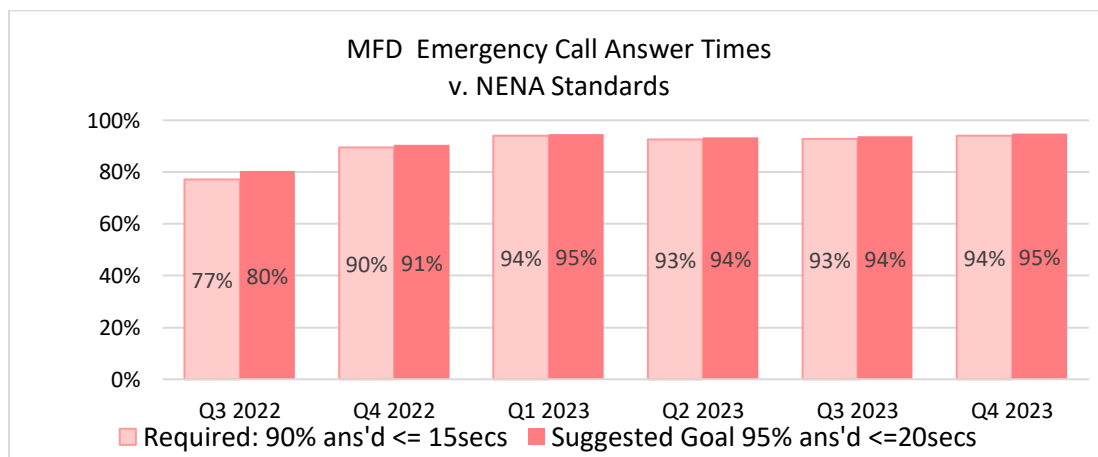
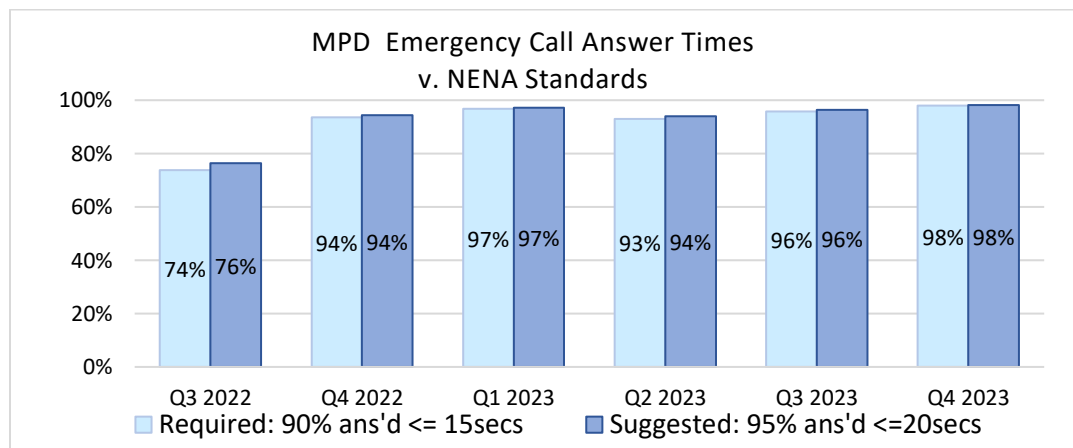
In conjunction with the implementation of the Solacom 9-1-1 system, the PSEP Executive Steering Committee established two primary performance metrics that are National Emergency Number Association (NENA) standards:

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

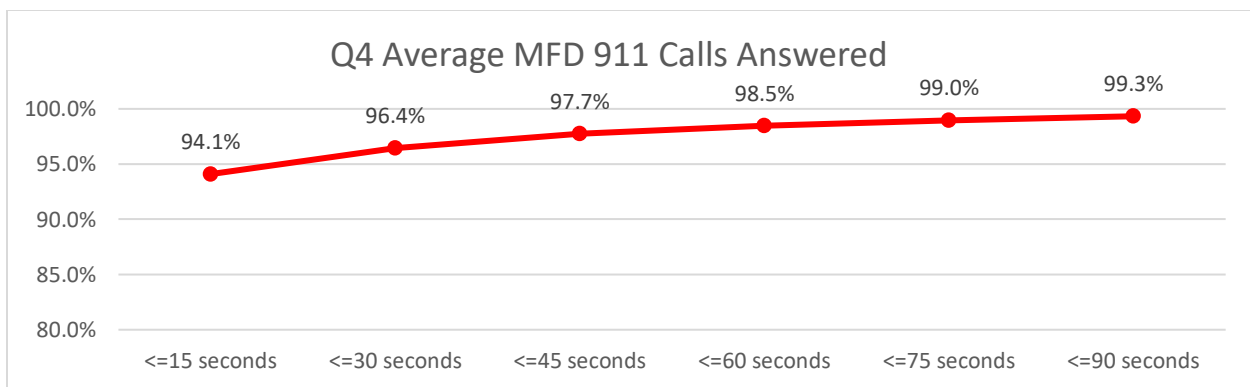
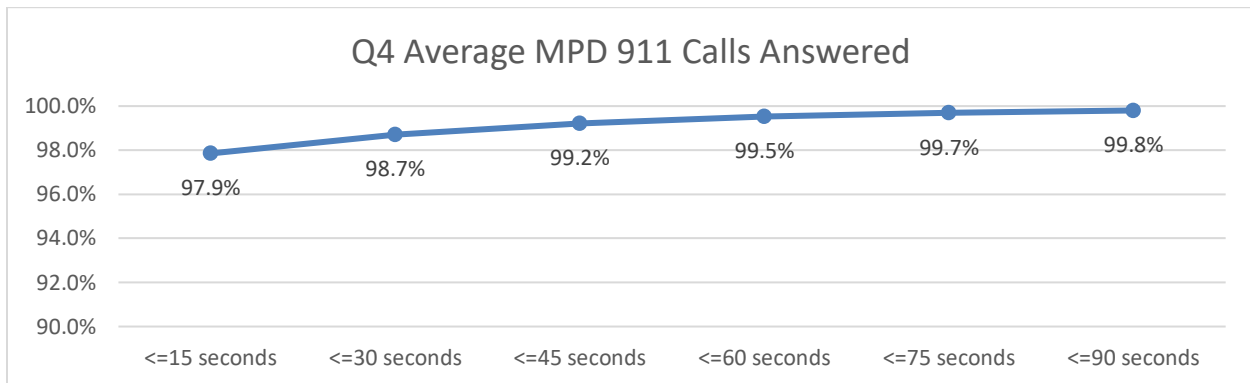
The Solacom 9-1-1 system monthly reports use the NENA standard as the foundation and then 15 second increments.

Analysis by FPC Staff

During Q4 2023, both MPD and MFD continued to exceed the 90% NENA standard. MPD exceeded the goal by 8% and MFD by 4%. This continues to be a striking improvement for both departments over Q3 2022, when percentages of the NENA standard were 74% and 77% respectively.

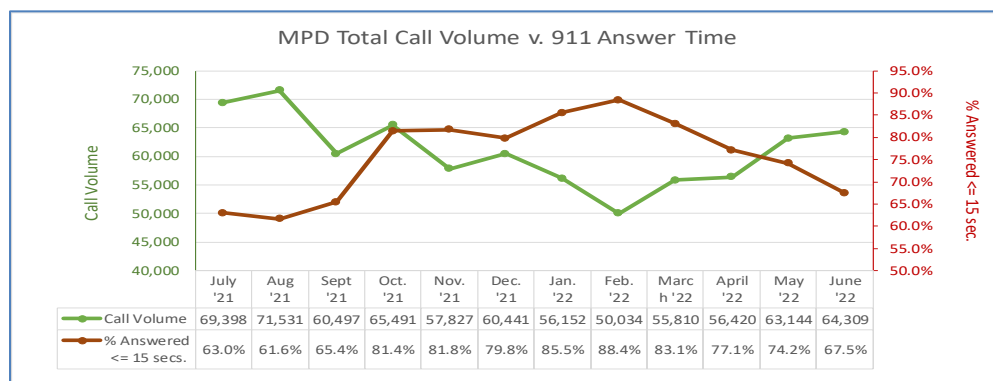


Overall in Q4 2023, 99.8% of MPD and 99.3% of MFD 911 calls were answered within 90 seconds.



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.

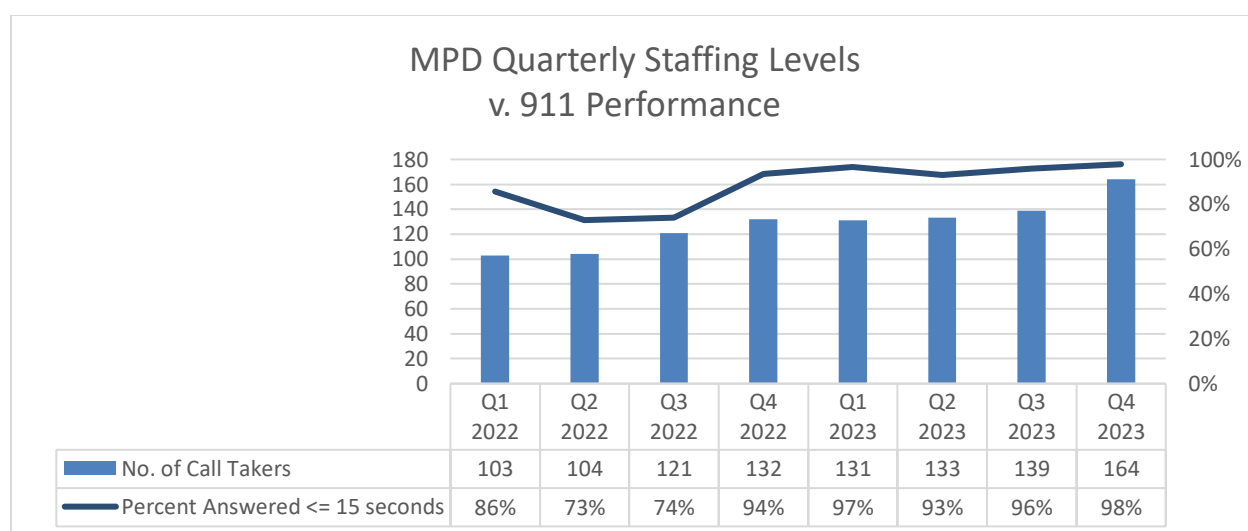


Note: "Total Call Volume" = Emergency + Administrative

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 eight (8) weeks from hire for telecommunicators to be fully trained: five (5) weeks in classroom and three (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 increased through Q4 of 2023. The increase in the number of call takers has been dramatic. Q4 2023 there were 164 call takers, an increase of 25 from 139 in Q3 2023.



Conclusion

Until Q3 of 2022, though the staff of call takers was working at capacity, NENA standards were not being met and there was a need to increase staffing. Measures put in place to do so included raising 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.

Since the end of Q4 2022, the percentage of 911 calls answered in 15 seconds or less has continued to meet or exceed the 90% NENA standard for both MPD and MFD.

Q4 2023 DATA

9-1-1/10-Digit Emergency Calls

MPD Q4 2023

Incoming MPD 9-1-1 Calls	October	November	December
All Received	42,964	39,820	40,058
Answered	42,285	39,324	39,488
Abandoned	679	496	570
Call Backs	587	406	496
MPD Answered 9-1-1 Calls	October	November	December
Average 9-1-1 Call Wait Time	0:00:01	0:00:01	0:00:01
Percent Answered Within 15 sec	98.0%	98.5%	97.1%

MFD Q4 2023

Incoming MFD 9-1-1 Calls	October	November	December
All Received	15,472	14,656	15,329
Answered	15,397	14,596	15,269
Abandoned	75	60	60
Call Backs	4	2	2
MFD Answered 9-1-1 Calls	October	November	December
Average 9-1-1 Call Wait Time	0:00:03	0:00:03	0:00:03
Percent Answered Within 15 sec	94.4%	93.8%	94.1%

9-1-1/10 Digit Call Answer Time

MPD Q4 2023

MPD Emergency TIME INCREMENT	October			November			December		
	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	41,422	98.0%	98.0%	38,717	98.5%	98.5%	38,359	97.1%	97.1%
16 - 30 Seconds	350	0.8%	98.8%	246	0.6%	99.1%	443	1.1%	98.3%
31 - 45 Seconds	187	0.4%	99.2%	145	0.4%	99.5%	283	0.7%	99.0%
46 - 60 Seconds	118	0.3%	99.5%	85	0.2%	99.7%	160	0.4%	99.4%
61 - 75 Seconds	74	0.2%	99.7%	41	0.1%	99.8%	84	0.2%	99.6%
76 - 90 Seconds	57	0.1%	99.8%	32	0.1%	99.9%	53	0.1%	99.7%
91 - 105 Seconds	31	0.1%	99.9%	25	0.1%	99.9%	37	0.1%	99.8%
106 - 120 Seconds	24	0.1%	99.9%	7	0.0%	99.9%	26	0.1%	99.9%
121 - 150 Seconds	15	0.0%	100.0%	18	0.0%	100.0%	28	0.1%	100.0%
151 - 180 Seconds	5	0.0%	100.0%	5	0.0%	100.0%	9	0.0%	100.0%
181 - 210 Seconds	2	0.0%	100.0%	2	0.0%	100.0%	4	0.0%	100.0%
211 - 240 Seconds	0	0.0%	100.0%	1	0.0%	100.0%	1	0.0%	100.0%
241 - 270 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	1	0.0%	100.0%
271 - 300 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
301 - 330 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
331 - 360 Seconds	0	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%	0	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	42,285	100.0%		39,324	100.0%		39,488	100.0%	

MFD Emergency TIME INCREMENT	October				November				December			
	MFD CALLS		Individual % of		MFD CALLS		Individual % of		MFD CALLS		Individual % of	
	ANSWERED	CALLS	Cumulative % of	ANSWERED	ANSWERED	CALLS	Cumulative % of	ANSWERED	ANSWERED	CALLS	Cumulative % of	ANSWERED
0 - 15 Seconds	14,533	94.4%	94.4%	13,686	93.8%	93.8%	93.8%	14,372	94.1%	94.1%	94.1%	14,372
16 - 30 Seconds	365	2.4%	96.8%	350	2.4%	96.2%	96.2%	347	2.3%	96.4%	96.4%	347
31 - 45 Seconds	211	1.4%	98.1%	194	1.3%	97.5%	97.5%	183	1.2%	97.6%	97.6%	183
46 - 60 Seconds	107	0.7%	98.8%	99	0.7%	98.2%	98.2%	117	0.8%	98.4%	98.4%	117
61 - 75 Seconds	66	0.4%	99.3%	89	0.6%	98.8%	98.8%	83	0.5%	98.9%	98.9%	83
76 - 90 Seconds	46	0.3%	99.6%	63	0.4%	99.2%	99.2%	50	0.3%	99.2%	99.2%	50
91 - 105 Seconds	28	0.2%	99.7%	26	0.2%	99.4%	99.4%	40	0.3%	99.5%	99.5%	40
106 - 120 Seconds	18	0.1%	99.9%	29	0.2%	99.6%	99.6%	29	0.2%	99.7%	99.7%	29
121 - 150 Seconds	17	0.1%	100.0%	26	0.2%	99.8%	99.8%	31	0.2%	99.9%	99.9%	31
151 - 180 Seconds	5	0.0%	100.0%	16	0.1%	99.9%	99.9%	9	0.1%	99.9%	99.9%	9
181 - 210 Seconds	1	0.0%	100.0%	11	0.1%	100.0%	100.0%	6	0.0%	100.0%	100.0%	6
211 - 240 Seconds	0	0.0%	100.0%	3	0.0%	100.0%	100.0%	1	0.0%	100.0%	100.0%	1
241 - 270 Seconds	0	0.0%	100.0%	4	0.0%	100.0%	100.0%	1	0.0%	100.0%	100.0%	1
271 - 300 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
301 - 330 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
331 - 360 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
361 - 390 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
391 - 420 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
421 - 450 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
451 - 480 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
481 - 510 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
511 - 540 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
541 - 570 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
571 - 600 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
601 - 1200 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
1201 - 1800 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
> 1800 Seconds	0	0.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0
Total Answered Calls	15,397	100.0%		14,596	100.0%			15,269	100.0%			

Non-Emergency/Administrative Calls

MPD Q4 2023

Incoming MPD Non-Emergency Calls	October	November	December
Answered**	18,163	16,489	15,973
MPD Answered Non-Emergency Calls	October	November	December
Average Non-Emergency Call Wait Time	0:00:20	0:00:17	0:00:30

MFD Q4 2023

Incoming MFD Non-Emergency Calls	October	November	December
Answered**	2,005	1,822	2,221
MFD Answered Non-Emergency Calls	October	November	December
Average Non-Emergency Call Wait Time	0:00:04	0:00:04	0:00:05

Non-Emergency/Administrative Call Answer Time

MPD Q4 2023

MPD Admin	October			November			December		
	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	15,178	83.6%	83.6%	14,109	85.6%	85.6%	12,537	78.5%	78.5%
16 - 30 Seconds	409	2.3%	85.8%	402	2.4%	88.0%	405	2.5%	81.0%
31 - 45 Seconds	360	2.0%	87.8%	299	1.8%	89.8%	379	2.4%	83.4%
46 - 60 Seconds	305	1.7%	89.5%	265	1.6%	91.4%	342	2.1%	85.5%
61 - 75 Seconds	291	1.6%	91.1%	210	1.3%	92.7%	265	1.7%	87.2%
76 - 90 Seconds	271	1.5%	92.6%	192	1.2%	93.9%	219	1.4%	88.6%
91 - 105 Seconds	171	0.9%	93.5%	148	0.9%	94.8%	218	1.4%	89.9%
106 - 120 Seconds	157	0.9%	94.4%	124	0.8%	95.5%	195	1.2%	91.2%
121 - 150 Seconds	277	1.5%	95.9%	167	1.0%	96.5%	317	2.0%	93.1%
151 - 180 Seconds	194	1.1%	97.0%	122	0.7%	97.3%	215	1.3%	94.5%
181 - 210 Seconds	136	0.7%	97.7%	100	0.6%	97.9%	161	1.0%	95.5%
211 - 240 Seconds	90	0.5%	98.2%	77	0.5%	98.3%	153	1.0%	96.5%
241 - 270 Seconds	62	0.3%	98.6%	64	0.4%	98.7%	122	0.8%	97.2%
271 - 300 Seconds	44	0.2%	98.8%	42	0.3%	99.0%	102	0.6%	97.9%
301 - 330 Seconds	43	0.2%	99.0%	31	0.2%	99.2%	77	0.5%	98.3%
331 - 360 Seconds	30	0.2%	99.2%	24	0.1%	99.3%	52	0.3%	98.7%
361 - 390 Seconds	32	0.2%	99.4%	18	0.1%	99.4%	41	0.3%	98.9%
391 - 420 Seconds	21	0.1%	99.5%	18	0.1%	99.5%	32	0.2%	99.1%
421 - 450 Seconds	23	0.1%	99.6%	17	0.1%	99.6%	18	0.1%	99.2%
451 - 480 Seconds	12	0.1%	99.7%	11	0.1%	99.7%	21	0.1%	99.4%
481 - 510 Seconds	10	0.1%	99.7%	15	0.1%	99.8%	21	0.1%	99.5%
511 - 540 Seconds	10	0.1%	99.8%	6	0.0%	99.8%	8	0.1%	99.5%
541 - 570 Seconds	5	0.0%	99.8%	5	0.0%	99.9%	7	0.0%	99.6%
571 - 600 Seconds	7	0.0%	99.9%	3	0.0%	99.9%	14	0.1%	99.7%
601 - 1200 Seconds	23	0.1%	100.0%	20	0.1%	100.0%	50	0.3%	100.0%
1201 - 1800 Seconds	1	0.0%	100.0%	0	0.0%	100.0%	2	0.0%	100.0%
> 1800 Seconds	1	0.0%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%
Total Answered Calls	18,163	100.0%		16,489	100.0%		15,973	100.0%	

MFD Admin	October				November				December			
	MFD CALLS		Individual % of		MFD CALLS		Individual % of		MFD CALLS		Individual % of	
	ANSWERED	CALLS	Cumulative % of	CALLS	ANSWERED	CALLS	Cumulative % of	CALLS	ANSWERED	CALLS	Cumulative % of	CALLS
TIME INCREMENT												
0 - 15 Seconds	1,914	95.5%	95.5%	95.5%	1,725	94.7%	94.7%	94.7%	2,077	93.5%	93.5%	93.5%
16 - 30 Seconds	25	1.2%	96.7%	96.7%	25	1.4%	96.0%	96.0%	40	1.8%	95.3%	95.3%
31 - 45 Seconds	10	0.5%	97.2%	97.2%	23	1.3%	97.3%	97.3%	25	1.1%	96.4%	96.4%
46 - 60 Seconds	13	0.6%	97.9%	97.9%	13	0.7%	98.0%	98.0%	20	0.9%	97.3%	97.3%
61 - 75 Seconds	10	0.5%	98.4%	98.4%	5	0.3%	98.3%	98.3%	12	0.5%	97.9%	97.9%
76 - 90 Seconds	11	0.5%	98.9%	98.9%	4	0.2%	98.5%	98.5%	7	0.3%	98.2%	98.2%
91 - 105 Seconds	1	0.0%	99.0%	99.0%	6	0.3%	98.8%	98.8%	8	0.4%	98.6%	98.6%
106 - 120 Seconds	1	0.0%	99.0%	99.0%	4	0.2%	99.1%	99.1%	6	0.3%	98.8%	98.8%
121 - 150 Seconds	6	0.3%	99.3%	99.3%	10	0.5%	99.6%	99.6%	14	0.6%	99.5%	99.5%
151 - 180 Seconds	7	0.3%	99.7%	99.7%	2	0.1%	99.7%	99.7%	5	0.2%	99.7%	99.7%
181 - 210 Seconds	3	0.1%	99.8%	99.8%	2	0.1%	99.8%	99.8%	3	0.1%	99.8%	99.8%
211 - 240 Seconds	2	0.1%	99.9%	99.9%	1	0.1%	99.9%	99.9%	3	0.1%	100.0%	100.0%
241 - 270 Seconds	1	0.0%	100.0%	100.0%	0	0.0%	99.9%	99.9%	0	0.0%	100.0%	100.0%
271 - 300 Seconds	0	0.0%	100.0%	100.0%	0	0.0%	99.9%	99.9%	0	0.0%	100.0%	100.0%
301 - 330 Seconds	1	0.0%	100.0%	100.0%	0	0.0%	99.9%	99.9%	1	0.0%	100.0%	100.0%
331 - 360 Seconds	0	0.0%	100.0%	100.0%	0	0.0%	99.9%	99.9%	0	0.0%	100.0%	100.0%
361 - 390 Seconds	0	0.0%	100.0%	100.0%	1	0.1%	99.9%	99.9%	0	0.0%	100.0%	100.0%
391 - 420 Seconds	0	0.0%	100.0%	100.0%	0	0.0%	99.9%	99.9%	0	0.0%	100.0%	100.0%
421 - 450 Seconds	0	0.0%	100.0%	100.0%	0	0.0%	99.9%	99.9%	0	0.0%	100.0%	100.0%
451 - 480 Seconds	0	0.0%	100.0%	100.0%	0	0.0%	99.9%	99.9%	0	0.0%	100.0%	100.0%
481 - 510 Seconds	0	0.0%	100.0%	100.0%	1	0.1%	100.0%	100.0%	0	0.0%	100.0%	100.0%
511 - 540 Seconds	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%
541 - 570 Seconds	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%
571 - 600 Seconds	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%
601 - 1200 Seconds	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%
1201 - 1800 Seconds	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%
> 1800 Seconds	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%	0	0.0%	100.0%	100.0%
Total Answered Calls	2,005	100.0%			1,822	100.0%			2,221	100.0%		