



2016 Q4 EPS Response Time and Dispatch Call Volume

**Presented to the Edmonton Police Commission
January 19, 2017**



Purpose

- To provide a summary of EPS Priority 1-5 Response Time Performance & Dispatch Call Volumes statistics, 2009 to 2016.
- To respond to questions raised by the EPC at during previous reporting (July 2016)



Summary

- Dispatch call volume (Priorities 1-5) dropped 1.0% to 163,168 in 2016 , the first drop since 2010.
- As a result, Response Time Performance for each priority levels has generally seen marginal improvement in 2016.
- P1 Response Time Performance is below target, but has been stable since 2013.

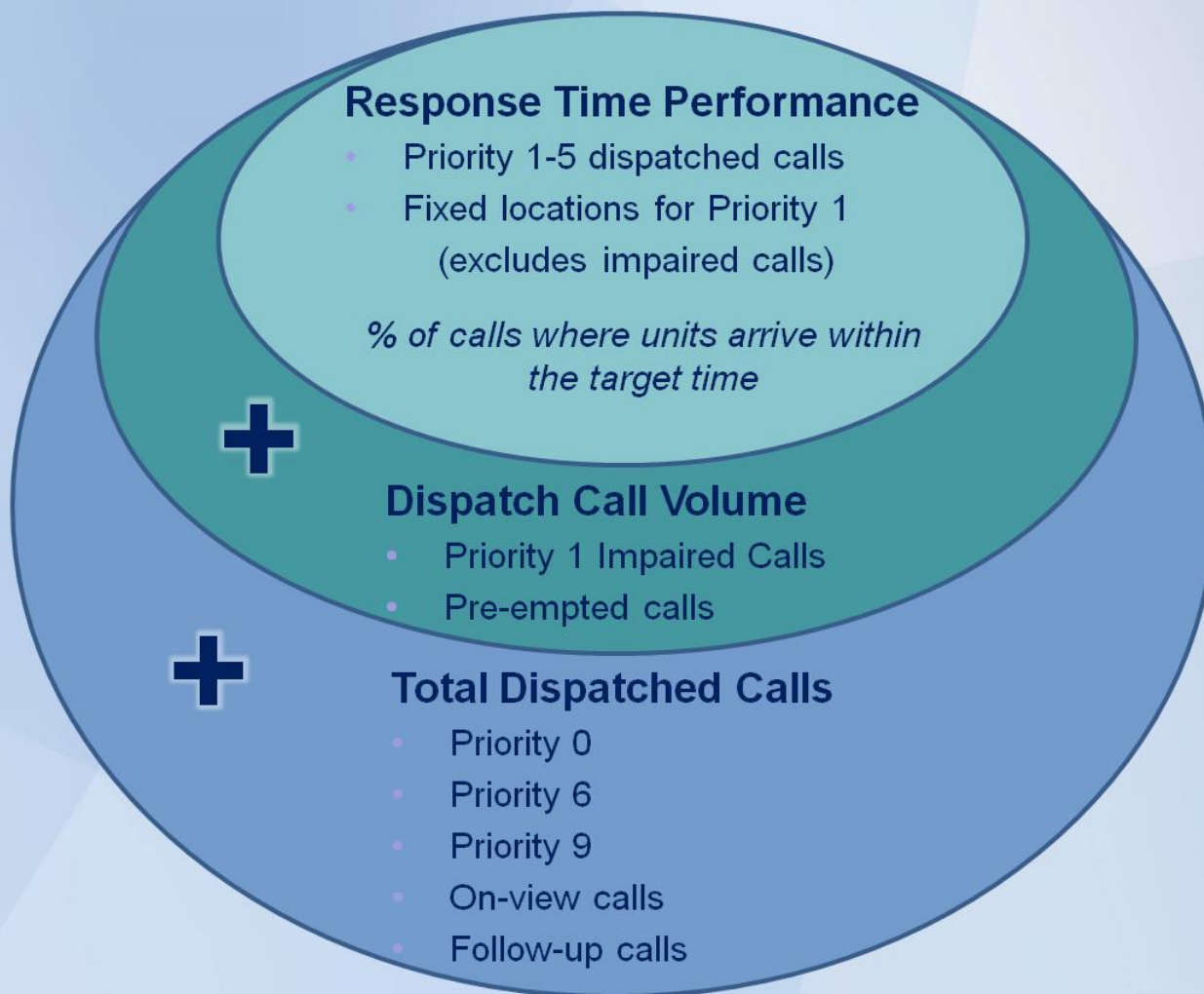


Priority Levels & Response Time Targets

Priority Code	Definition/Example	Response Time Target (80% of the time)
0	Officer in Distress / Officer Needs Assistance	
1	In Progress Person At Risk - Response will likely prevent or reduce further harm to a person example: assault with a weapon <i>in progress</i>	Dispatch Time + Travel Time ≤ 7 minutes
2	In Progress Property At Risk - Immediate response will likely prevent or reduce the further loss of property example: a neighbour observing an auto theft <i>in progress</i>	Dispatch Time + Travel Time ≤ 12 minutes
3	Just Occurred - Immediate response will increase the likelihood of locating a suspect example: mischief that occurred very recently	Dispatch Time + Travel Time ≤ 17 minutes
4	The Nature of the Occurrence is Time Sensitive example: a shoplifter is in-custody with security and is cooperative	Dispatch Time + Travel Time ≤ 40 minutes
5	General Service - The nature of the offence is not time sensitive example: a business finds that they were vandalized the night before (i.e., the absence of <i>in progress</i> or <i>just occurred</i>)	Dispatch Time + Travel Time ≤ 180 minutes
6	The Occurrence is Minor in Nature (eg.) Bylaw	
9	Broadcast - Information only	

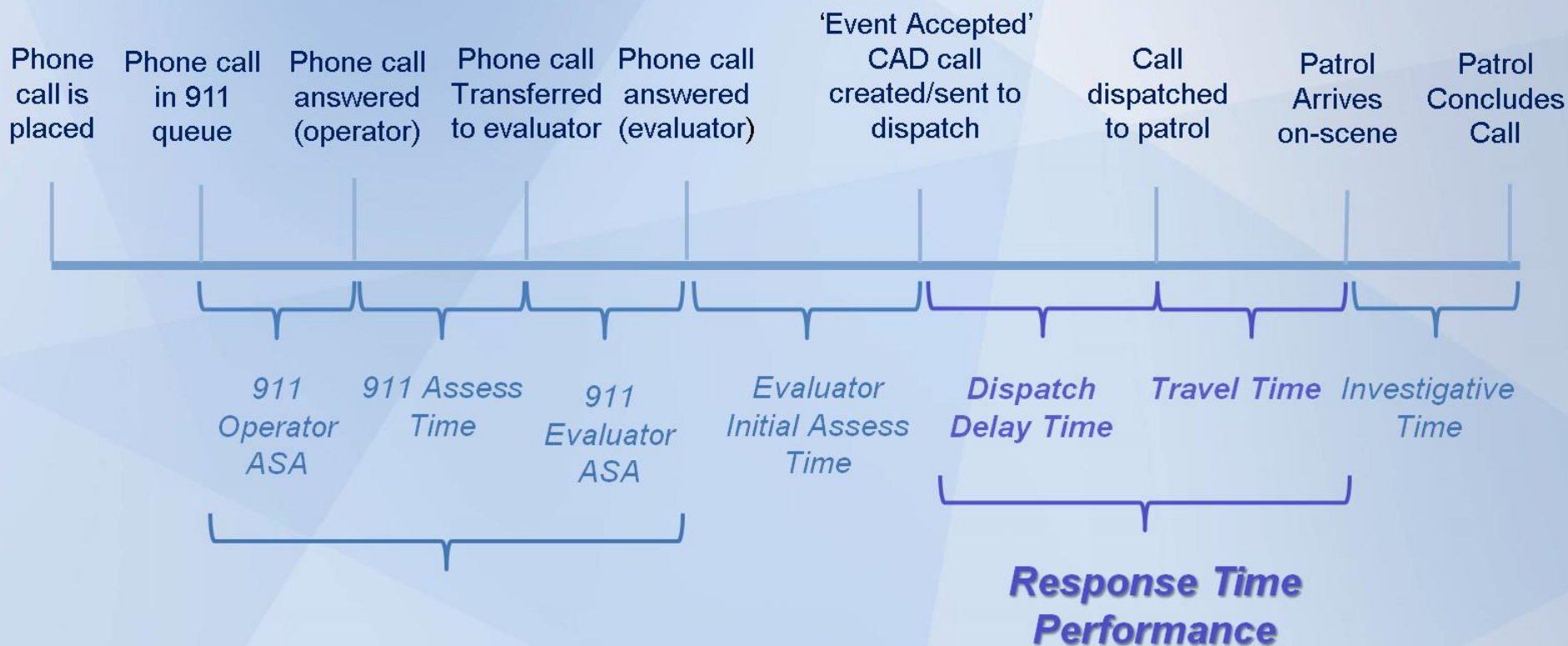


What's Included in our Statistics





Steps to Complete a 9-1-1 Emergency Call

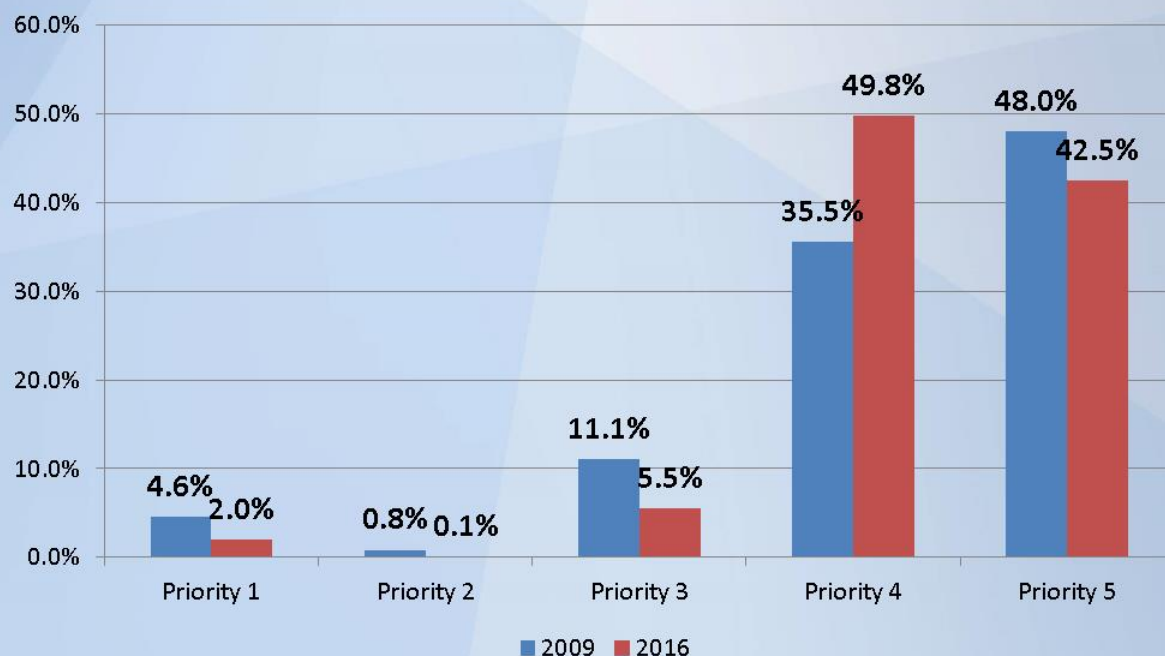




Distribution of P1-P5 Dispatched Calls

- The majority of dispatch call volume is of low priority (P4,P5).
- Only 7.6% of calls in 2016 were highly urgent (P1-P3). In 2009, this was 16.5%.
- All growth in calls since 2009 have been in low priority (P4,P5).

EPS Dispatch Calls by priority level, %, 2009 and 2016

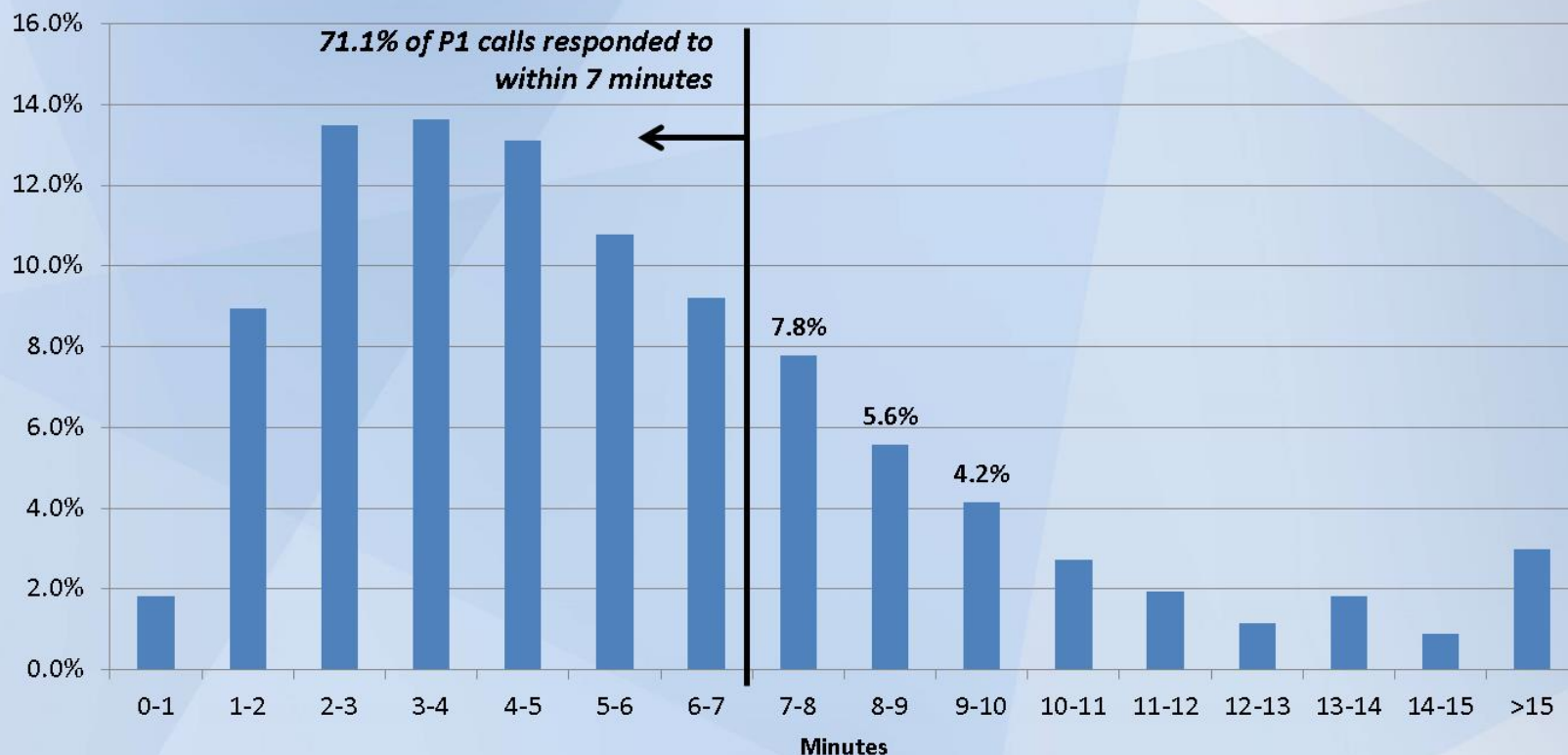




Questions asked from previous reporting

1. What is EPS's Priority 1 Response Time Performance when adjusting the time target (e.g., 8, 9, 10 minutes, rather than 7)?

P1 Response Time Distribution, 2016

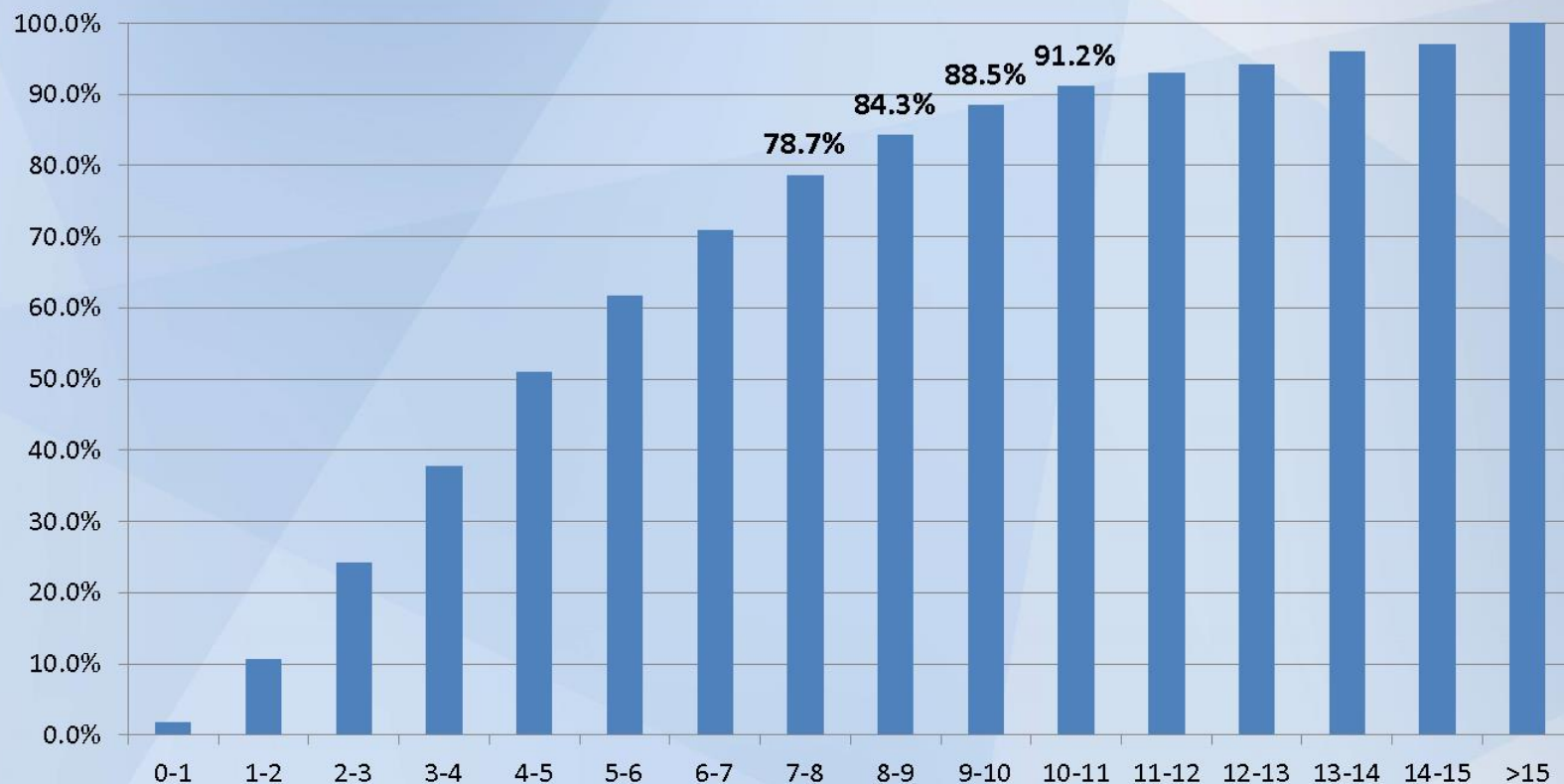




Questions asked from previous reporting

1. What is EPS's Priority 1 Response Time Performance when adjusting the time target (e.g., 8, 9, 10 minutes, rather than 7)?

P1 Response Time Distribution, cumulative, 2016



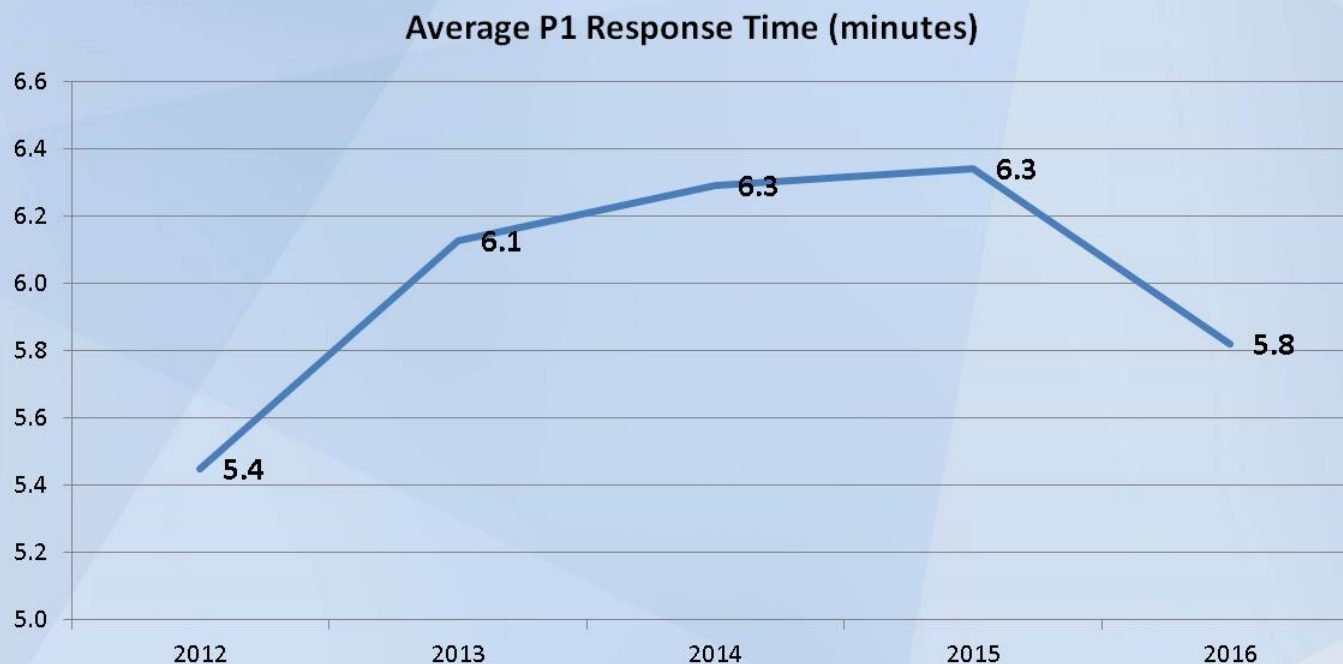


Questions asked from previous reporting

1. *What is EPS's Priority 1 Response Time Performance when adjusting the time target (e.g., 8, 9, 10 minutes, rather than 7)?*

Alternative measurement: average Response Times.

Issue: skewed by excessively long response times (which may be impacted by data errors)

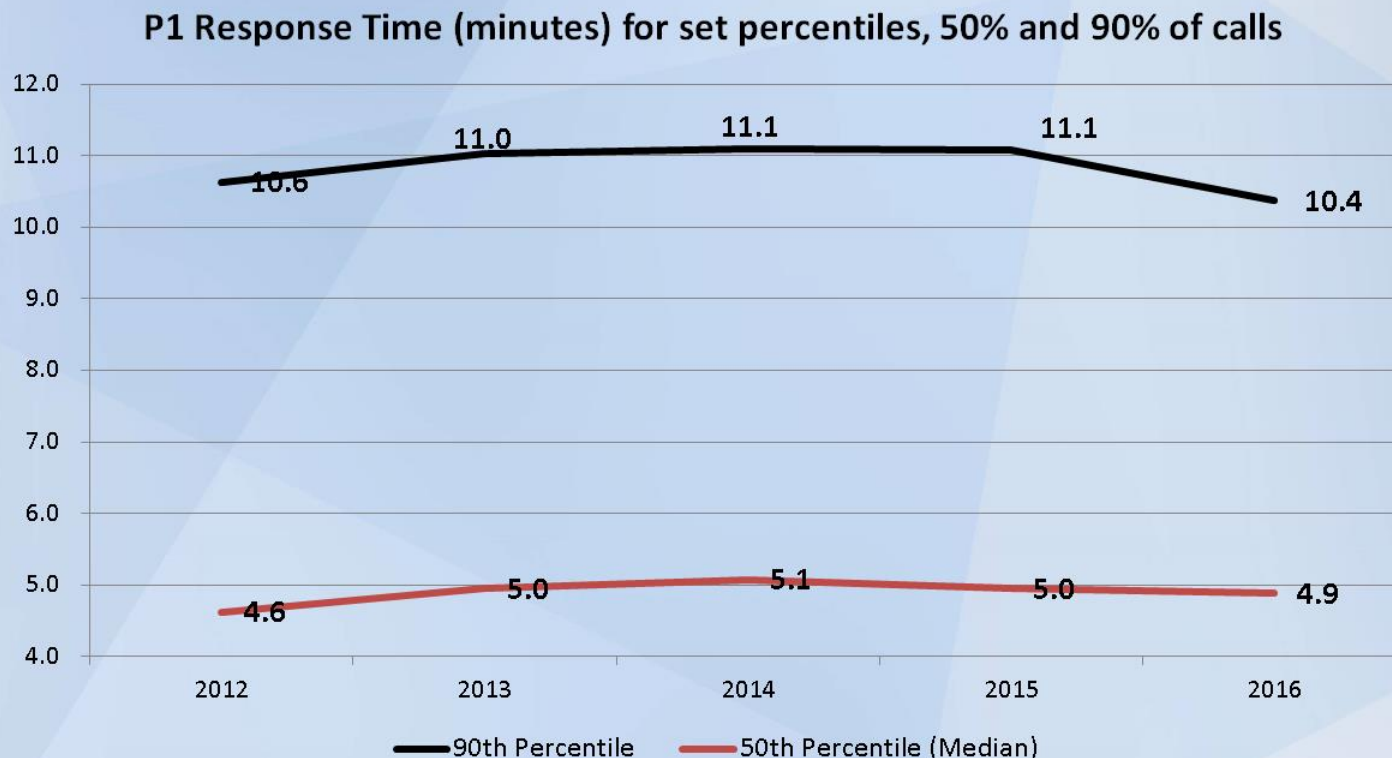




Questions asked from previous reporting

1. What is EPS's Priority 1 Response Time Performance when adjusting the time target (e.g., 8, 9, 10 minutes, rather than 7)?

Alternative measurement: Response Times within set percentiles (time that x% of calls responded to within)





Questions asked from previous reporting

2. Is there a correlation between officer availability and meeting Response Time targets?

No clear CAD data to analyze this relationship. A previous Response Time report (2014 Q4) looked at other factors that can affect Response Times (2009-2014 data only):

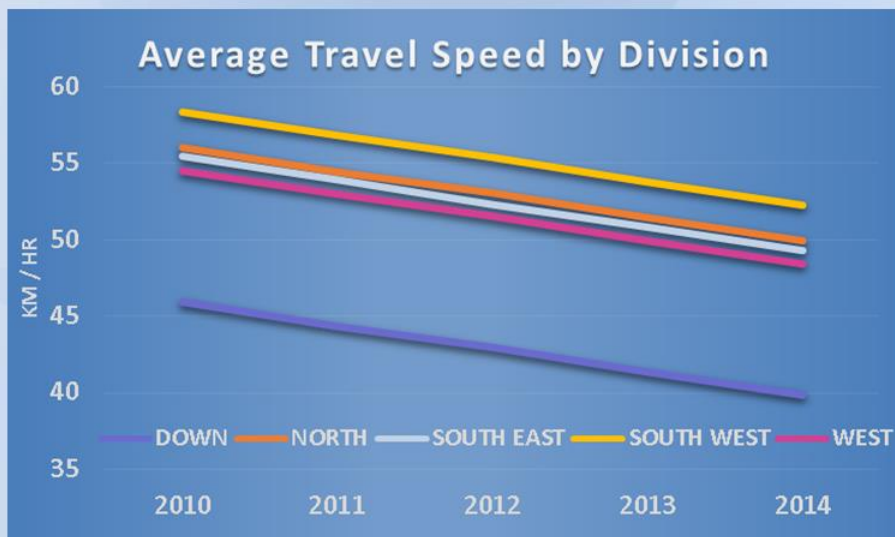
- *Travel Speed*: patrol driving slower (average 1.5km/hr less annually)
- *Travel Distance*: increasing annually
- *Dispatch Delay*: average increase of 1.7 seconds annually
- Data quality: increasing issue of patrol not pushing the “arrive” button when they have arrived on-scene



Questions asked from previous reporting

2. *Is there a correlation between officer availability and meeting Response Time targets?*

Results from 2014 Q4 report:





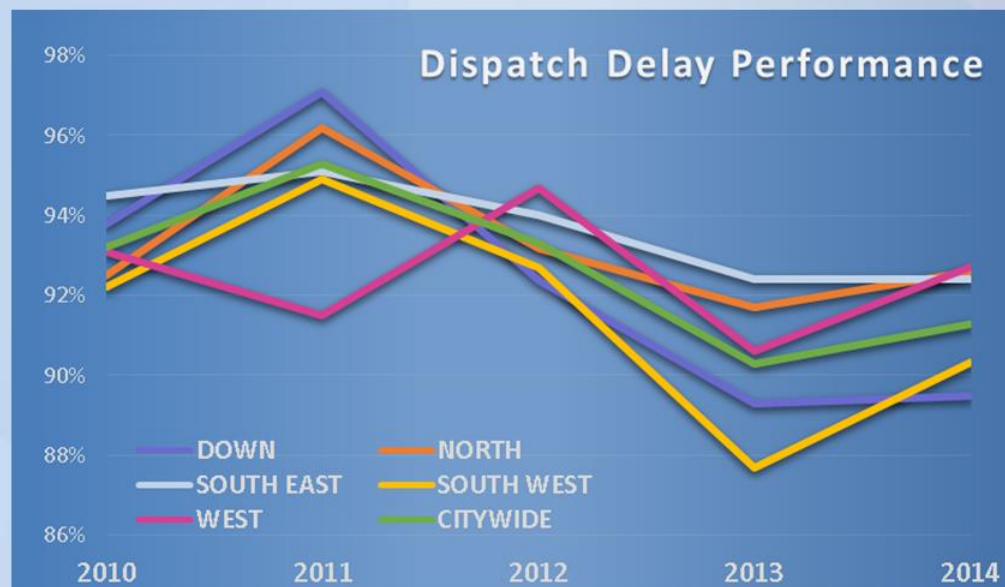
Questions asked from previous reporting

2. *Is there a correlation between officer availability and meeting Response Time targets?*

Change in Priority 1 Response Time Performance based on GPS data

Results from 2014 Q4 report:

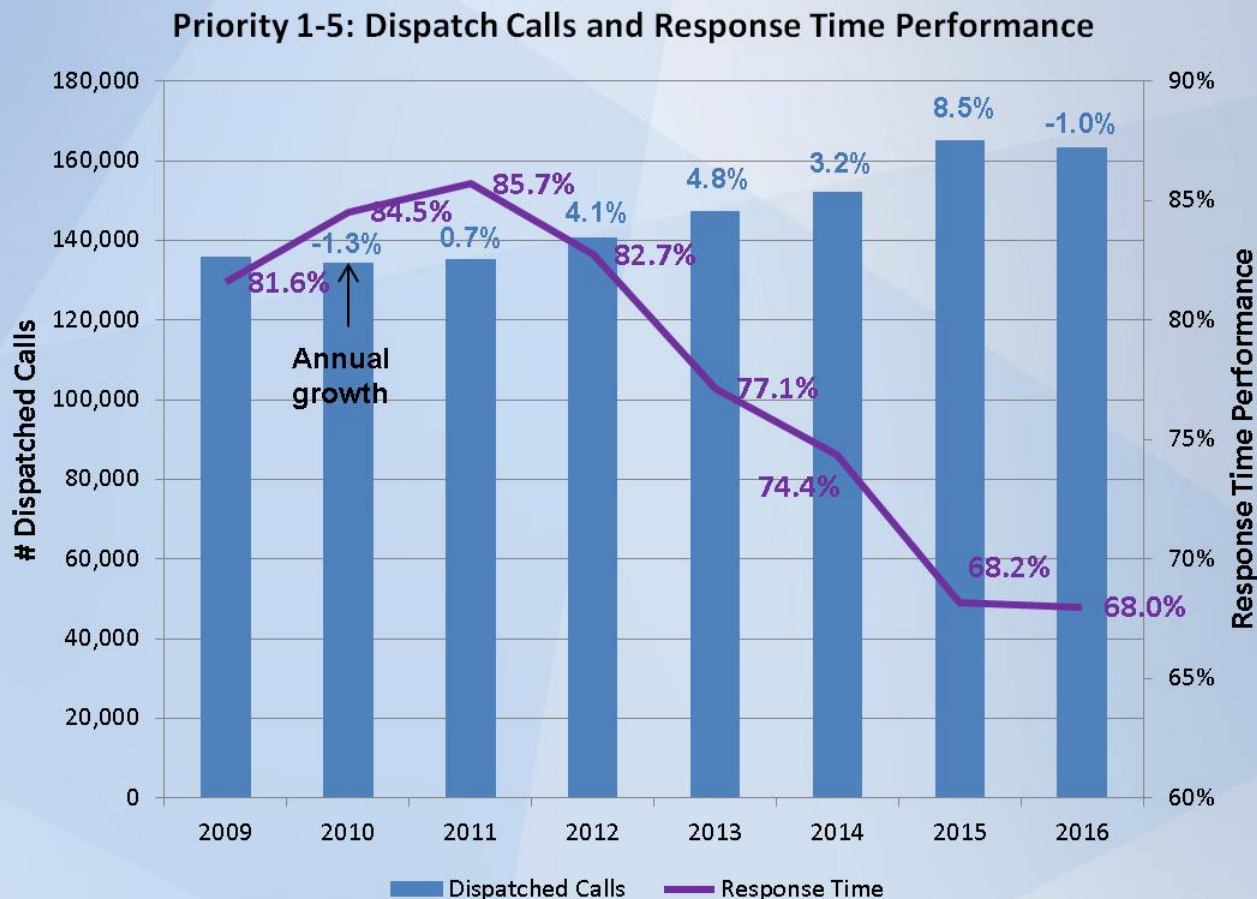
Year	DOWN	NORTH	SOUTH EAST	SOUTH WEST	WEST	City Wide
2010	0.4%	2.2%	2.3%	2.9%	2.2%	1.8%
2011	1.1%	2.8%	3.0%	3.3%	2.3%	2.4%
2012	1.8%	3.1%	2.3%	5.2%	3.6%	3.1%
2013	3.3%	3.9%	3.6%	4.9%	3.5%	3.8%
2014	2.9%	3.9%	1.6%	4.5%	2.3%	3.0%





P1-P5 Response and Dispatch Call Volume

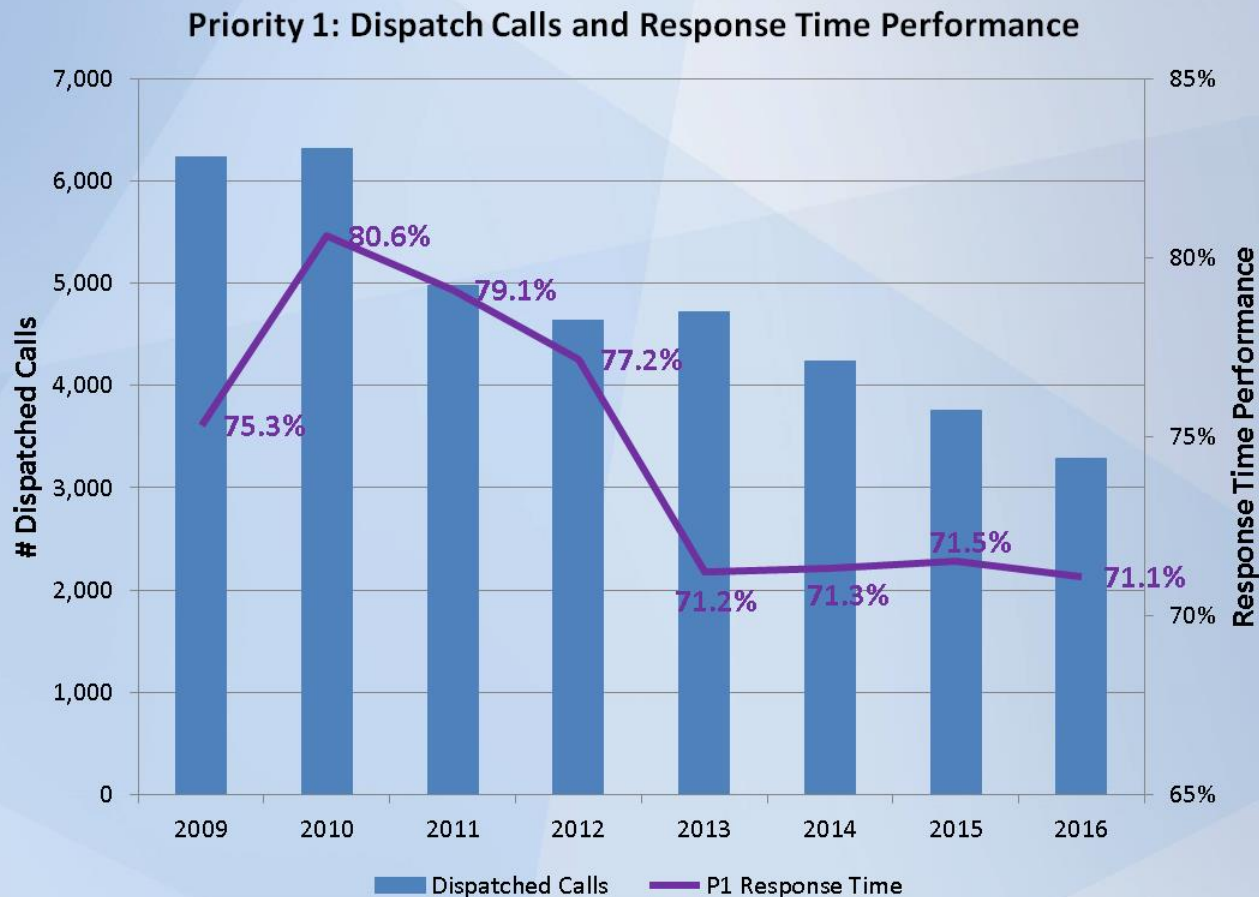
- P1-P5 Dispatch Call Volume decreased **1.0%** from 2015-2016
- P1-P5 Response Time Performance peaked in 2011 and has been declining since.
- 2016 P1-P5 Response Time Performance was **68.0%**, compared to **68.2%** in 2015.





P1 - Response and Dispatch Call Volume

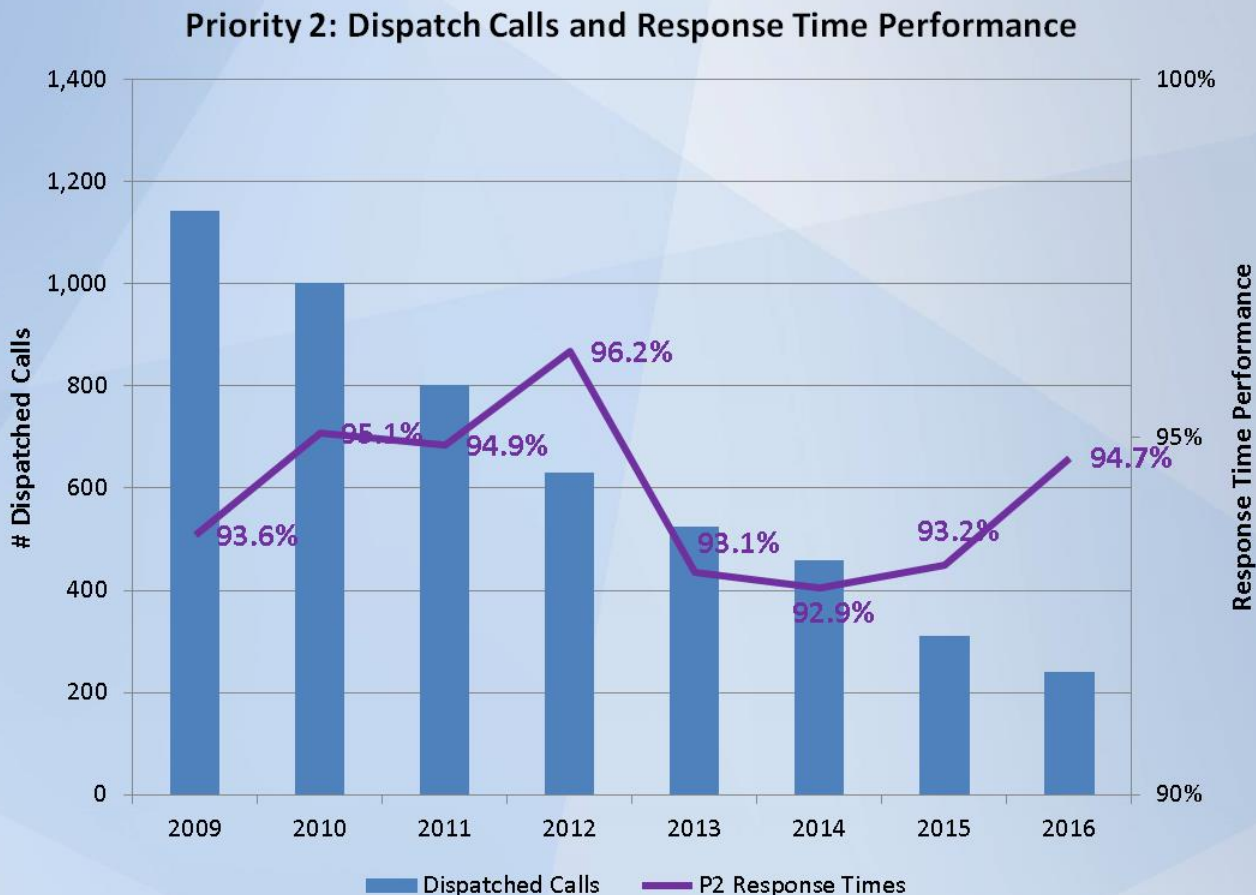
- P1 Dispatch Call Volume decreased **12.3%** from 2015-2016.
- P1 Response Time Performance was **71.1%** in 2016, compared to **71.5%** in 2015.





P2 - Response and Dispatch Call Volume

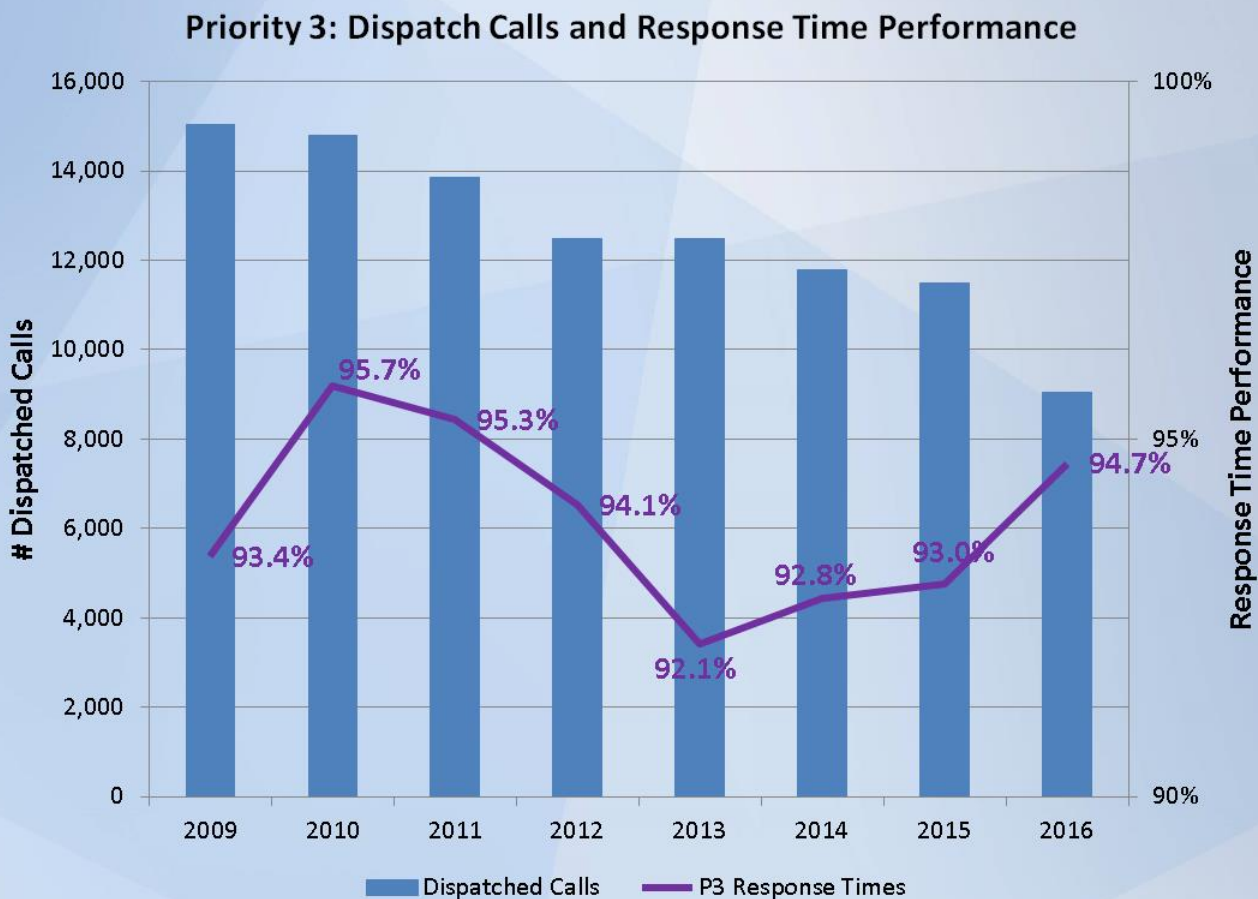
- P2 Dispatch Call Volume decreased **22.5%** from 2015-2016.
- P2 Response Time Performance was **94.7%** in 2016, compared to **93.2%** in 2015.





P3 - Response and Dispatch Call Volume

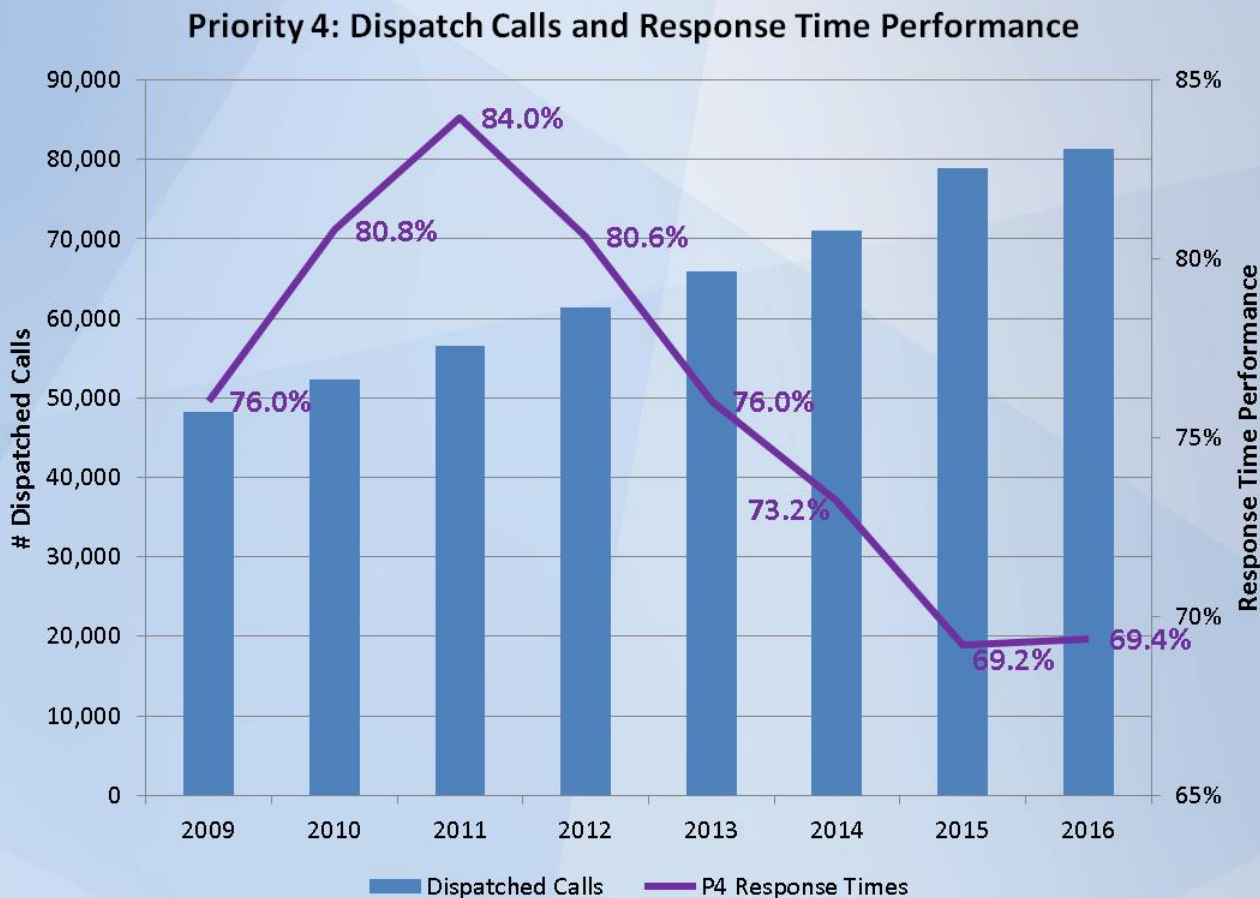
- P3 Dispatch Call Volume decreased **21.2%** from 2015-2016.
- P3 Response Time Performance was **94.7%** in 2016, compared to **93.0%** in 2015.





P4 - Response and Dispatch Volume

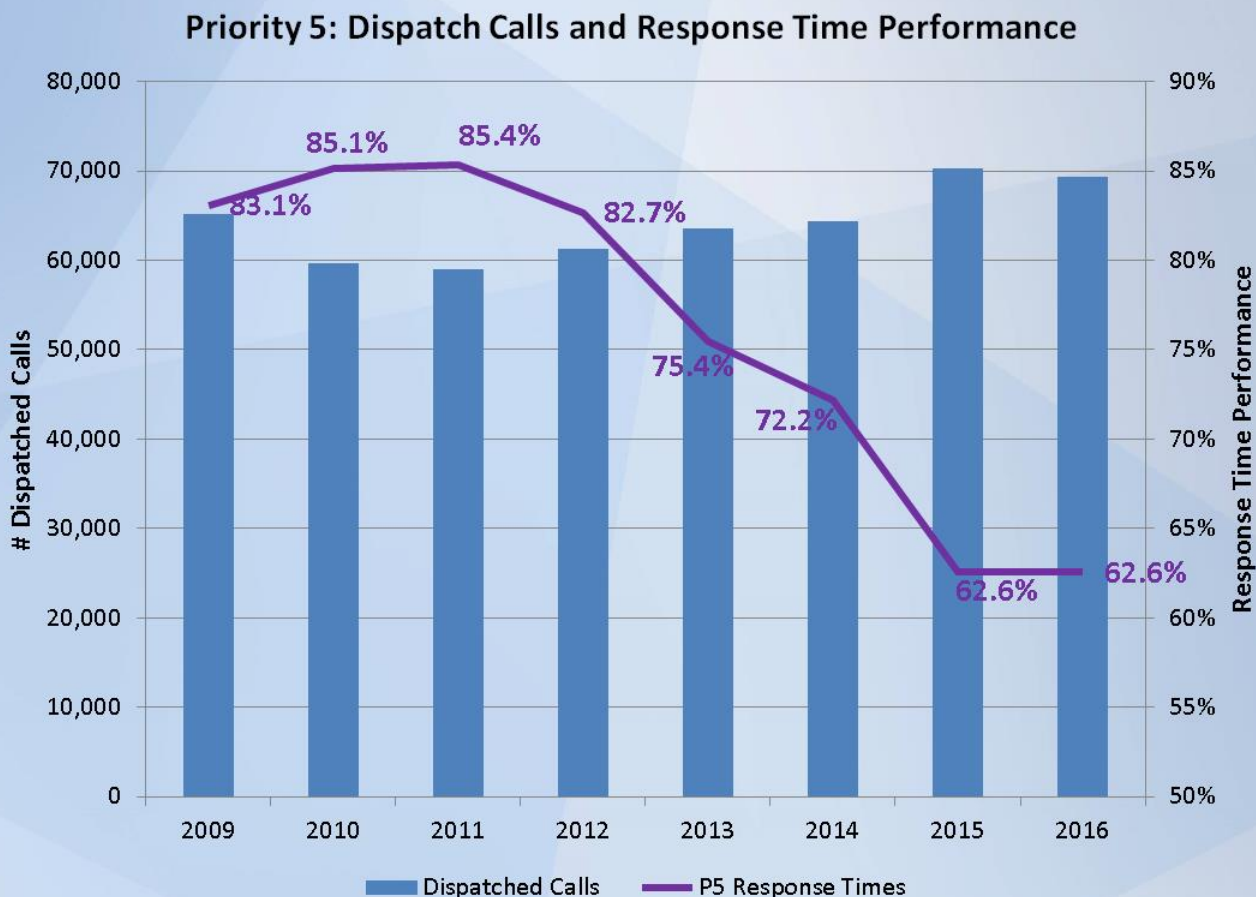
- P4 Dispatch Call Volume increased **2.9%** from 2015-2016.
- P4 Response Time Performance was **69.4%** in 2016, compared to **69.2%** in 2015.





P5 - Response and Dispatch Volume

- P5 Dispatch Call Volume decreased **1.5%** from 2015-2016.
- P5 Response Time Performance was **62.6%** in 2016, unchanged from 2015.



P1-P5 Response Time Performance & Dispatch Call Volume



EPS Response Time Performance and Dispatch Call Volume		2009	2010	2011	2012	2013	2014	2015	2016
Priority 1	Performance	75.3%	80.6%	79.1%	77.2%	71.2%	71.3%	71.5%	71.1%
	# Dispatch Calls	6,238	6,315	4,977	4,635	4,718	4,238	3,754	3,291
Priority 2	Performance	93.6%	95.1%	94.9%	96.2%	93.1%	92.9%	93.2%	94.7%
	# Dispatch Calls	1,143	1,003	802	631	525	459	311	241
Priority 3	Performance	93.4%	95.7%	95.3%	94.1%	92.1%	92.8%	93.0%	94.7%
	# Dispatch Calls	15,039	14,798	13,843	12,472	12,494	11,782	11,490	9,049
Priority 4	Performance	76.0%	80.8%	84.0%	80.6%	76.0%	73.2%	69.2%	69.4%
	# Dispatch Calls	48,261	52,355	56,489	61,436	65,949	71,130	78,978	81,270
Priority 5	Performance	83.1%	85.1%	85.4%	82.7%	75.4%	72.2%	62.6%	62.6%
	# Dispatch Calls	65,172	59,665	58,939	61,344	63,629	64,393	70,347	69,317
Total # Dispatched Calls		135,853	134,136	135,050	140,518	147,315	152,002	164,880	163,168

Source: Cognos R15-091, ran Jan 3, 2017



QUESTIONS ?