911

April 16, 2014

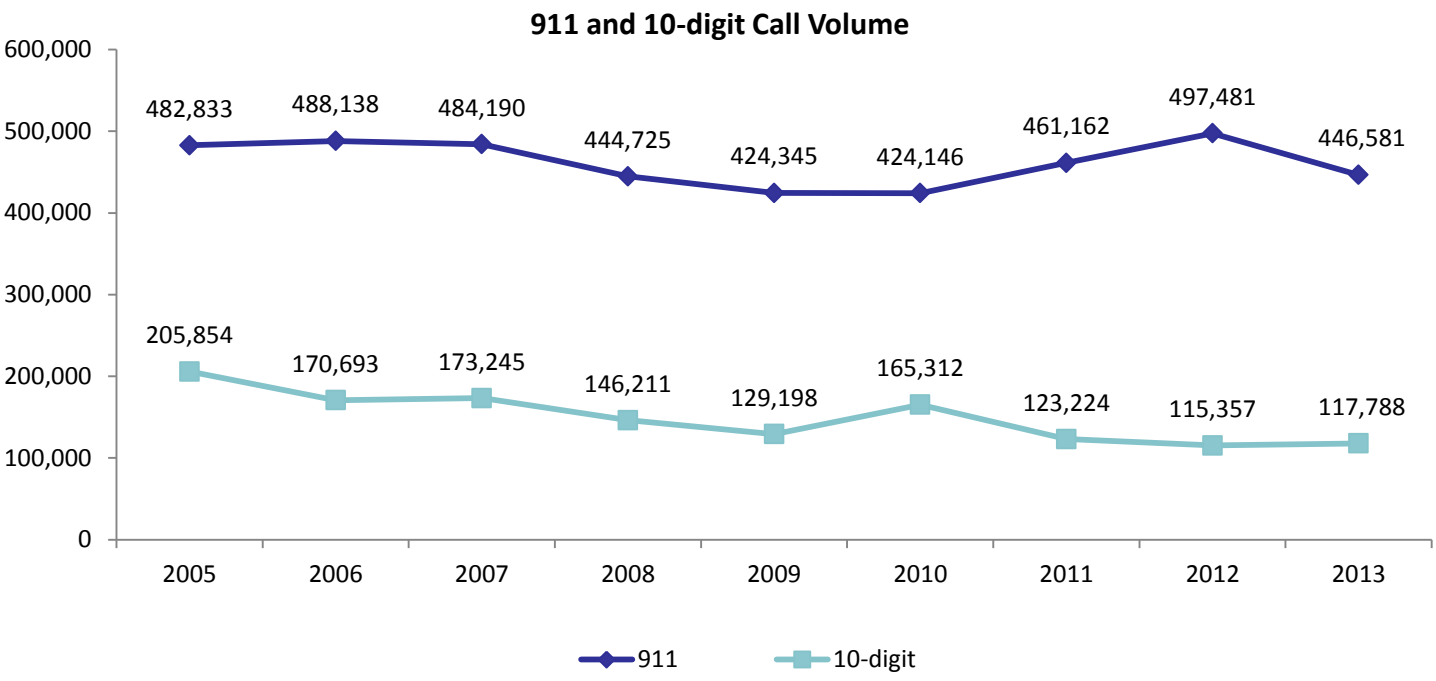
Table of Contents

911

Performance Measures	Page
1. 911 At a Glance	3
2. Call Volume	4
- Snapshot of 10-digit Calls Composition	
- Non-English Calls NEW	5
3. 911 Answer Time	6
4. Fire and Police Priority 1 Quarterly Response Time	7
5. 911 Pending Time	8
6. 911 Complaints Received and Sustained	9
7. 911 Quality Service Index	10
8. Resident Survey Measure	11
9. Cost per Contact	12
10. Cost per Call Comparison	12

911 At a Glance

Measure	2010	2011	2012	2013
Total Calls Received	589,458	584,386 .8% decrease from 2010	612,838 1.7 % increase from 2011	564,369 4.3% decrease from 2012
9-11 Calls	424,146 (72% of calls)	461,162 (79% of calls)	497,481 (81% of calls)	446,581 (79% of calls)
10-Digit	165,312 (28% of calls)	123,224 (21% of calls)	115,357 (19% of calls)	117,788
Average 911 answer time	6.3 sec	6.1 sec	7.3 sec	9.3 sec
Police Dispatches	344,322	339,465	353,580	374,253
Fire Dispatches	31,711	34,914	36,754	38,368
Priority Call Waiting Time Police	1 min 25 sec	1 min 30 sec	1 min 34 sec	1 min 57 sec
Priority Call Waiting Time Fire	18 sec	15.5 sec	15 sec	15.5 sec
Complaints	38 received 27 sustained (71%)	36 received 15 sustained (42%)	47 received 26 sustained (55%)	36 received 25 sustained (68%)
Quality Index	**89**	**91**	**94**	**91**



Source: CML - Sentinel Stats call data system

Why is this measure important?
911 receives incoming calls on 911 and alternate 10-digit lines. The 10-digit lines are required by law to provide emergency access for persons who cannot complete their call by dialing 911.

It is difficult to categorize how many 911 or 10-digit calls are actually "emergencies." Some 911 calls are not emergencies and some 10-digit calls are. We do know that the majority of calls received on the 10-digit lines are legitimate business that the 911 center needs to handle: calls related to ongoing incidents, inquiries about incidents, calls from other agencies requesting assistance and calls from alarm companies reporting burglar, fire and panic alarms.

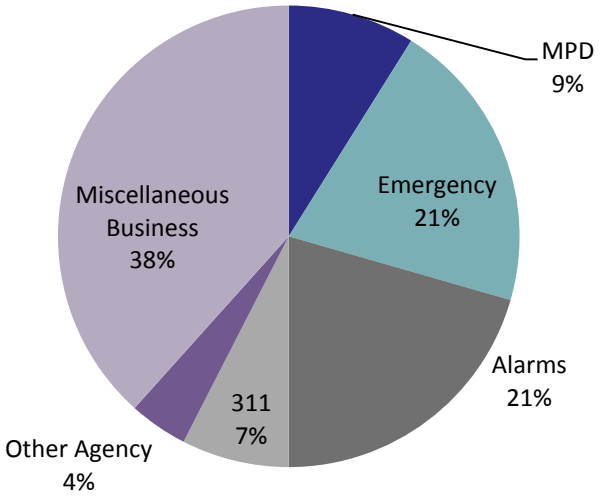
The 10-digit call snapshot on the following page shows call categories during a 24-hour period in July 2013.

We can see 42 percent of these calls required a response from police, fire, or ambulance. The remainder are for the most part emergency response and incident management business that is appropriate for the 911 center to handle.

Non-English Speaking Calls:
911 uses a state-provided certified translation service for non-English speaking callers. In 2013, 31 languages were translated. The following graph shows the four most frequent languages requiring a translator. Language line calls are not a large percentage of total 911 calls, however, they do take longer for an agent to process: five minutes on average compared with three minutes for total 911 calls.

Additional Data on Next Page…

Snapshot: Composition of 10-digit Calls
July 15, 2013
(n=146)



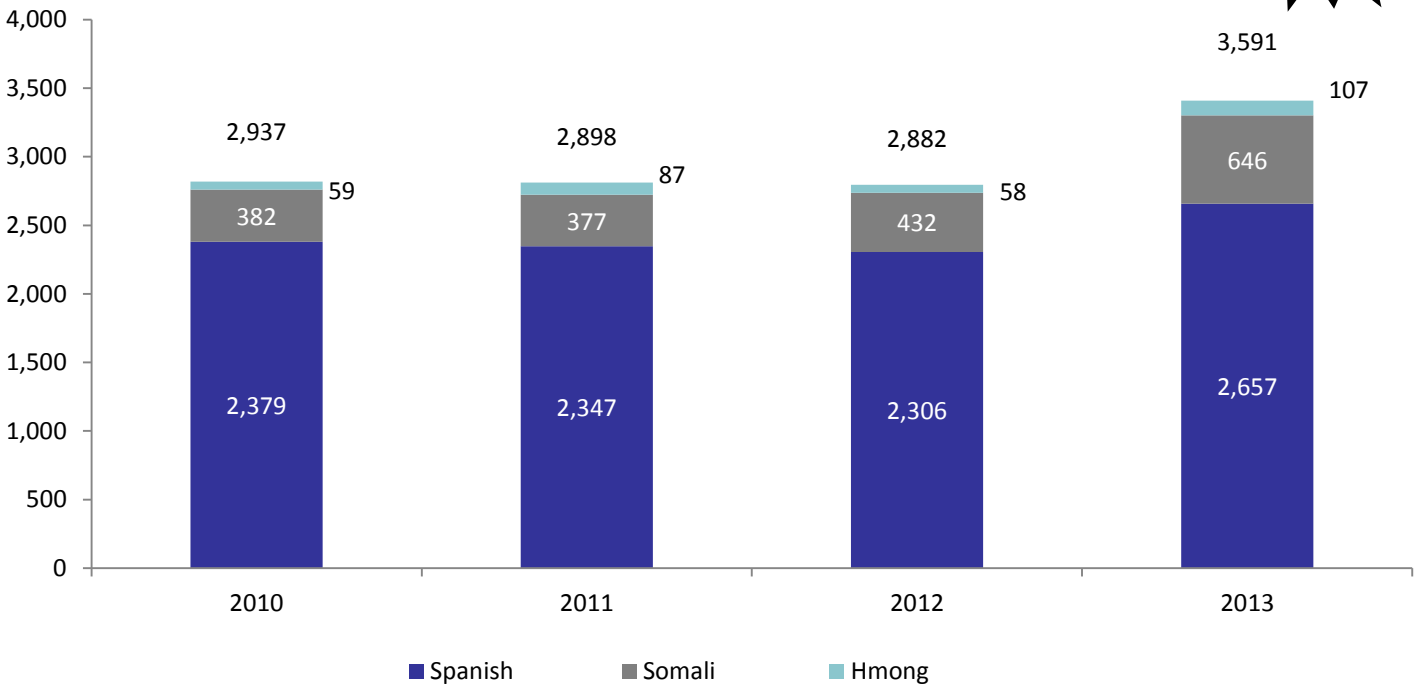
Notes:

- 311 - calls referred to 311
- Alarms - alarm companies reporting alarm activations
- Emergency - calls that required dispatch;
- Misc. Business - variety of scenarios, Misc. questions
- MPD - calls received from MPD personnel
- Other agency - calls referred to other agencies, i.e. State Patrol

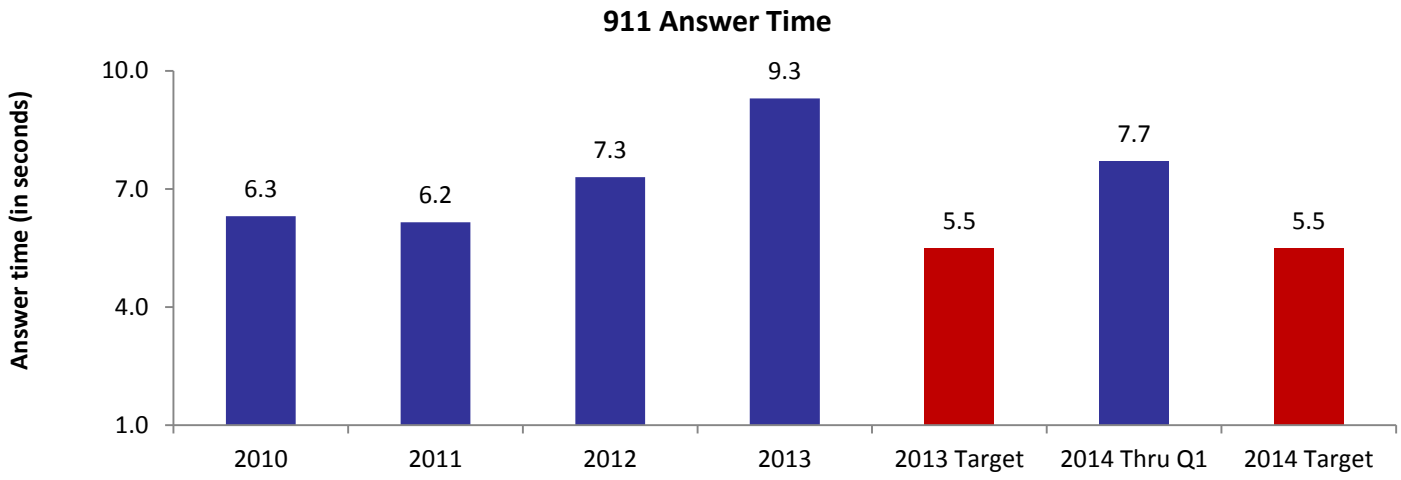
Source: Manually listen/evaluate each of the calls using Capture 911 audio logging system

NEW

Non-English 911 Calls



Source: State of Minnesota 911 Program



Source: CML - Sentinal Stats call data system

Why is this measure important?

Callers reporting true emergencies need timely action. All 911 calls are presumed to be emergencies. The national benchmark (a legal standard in 10 states, not including MN) is 90 percent of 911 calls answered within ten seconds. 911 manually calculates the average answer time as the statistical reporting package does not accurately provide this data. The new 911 phone system, to be implemented in 2015, will provide more comprehensive reporting capabilities.

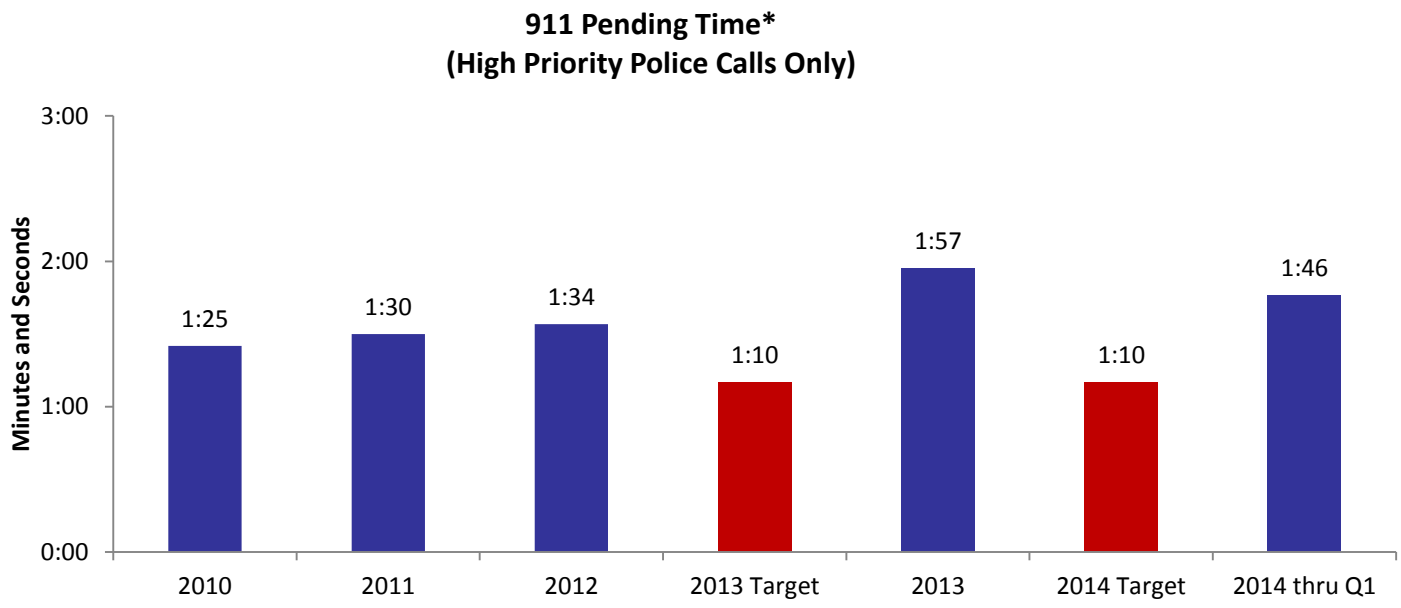
What will it take to achieve the targets?

2014 answer times are improving. For the month of March, 911's average answer time was 5.6 seconds.

Factors influencing answer time include call arrivals, call duration and agent talk time. Industry tools provide guidance for the number of agents needed to achieve the target, given these factors. Using these tools, 911 has worked to estimate the total number of operations staff (69) needed to achieve the target; current authorized staff is 68.

As part of continuous evaluation, 911 will be conducting a new staffing study in 2014 to incorporate any changes in call answer time factors detailed above.

Knowing that staffing numbers are not the sole factor in call center performance, 911 has proactively implemented several initiatives to improve efficiency of existing authorized staff, including additional changes to call answering business processes and a demand-based strategic staffing initiative that distributes staff according to activity levels. In addition, 911 is hiring bell curve positions to fill anticipated vacancies in 2014 due to retirements. Onboarding staff is a priority in 2014 and the additional resources will be strategically deployed once they are hired and trained.



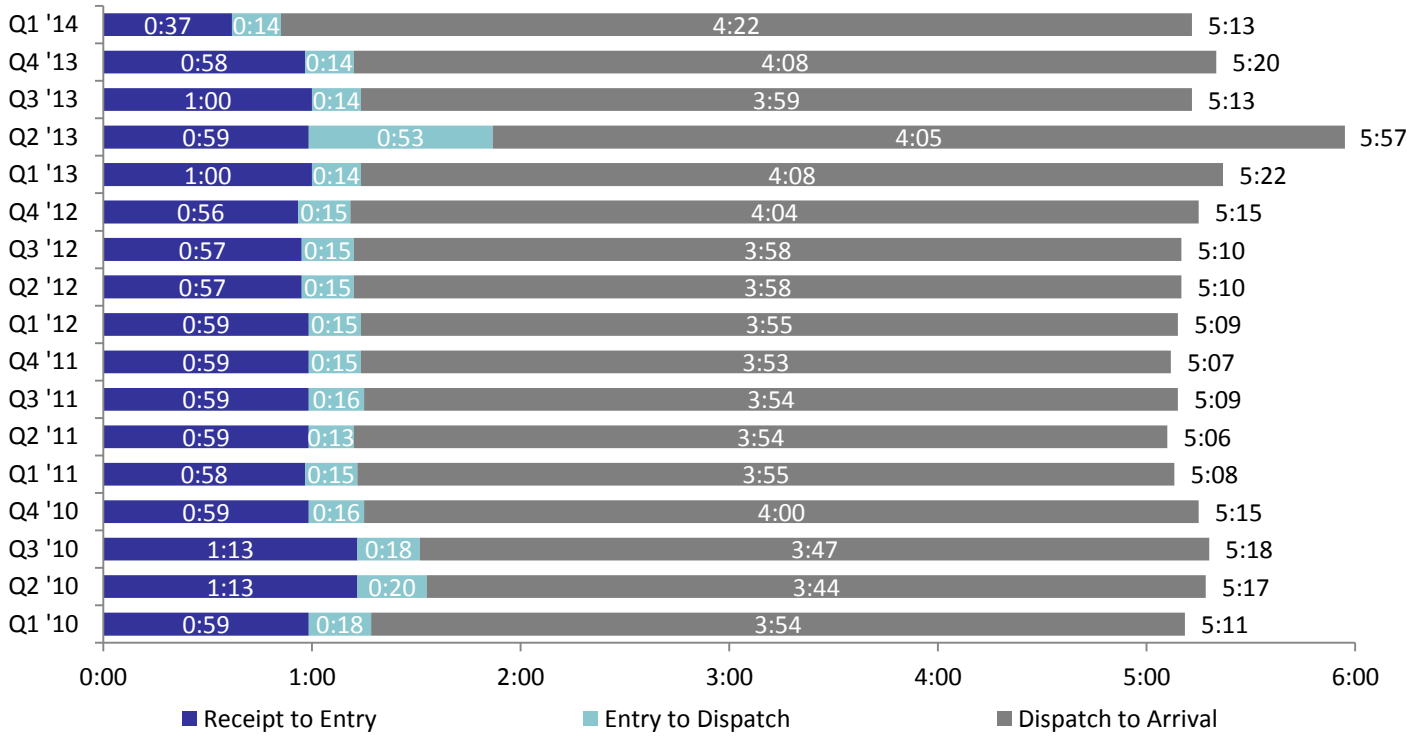
Note: *Pending time is equal to the elapsed time from CAD entry to dispatch
Source: CAD

Why is this measure important?
Pending time is the length of time from call entry to dispatch. 911 follows the Police Department's Priority Policy, which establishes the maximum pending times for various call priorities (0 – 3). The target pending time for high priority calls (imminent life or property threat) is one minute, ten seconds. Pending time indicates both dispatcher proficiency in managing their workload and the availability of resources.

The attached graph shows the data for the Minneapolis Police Department (MPD) only. As seen on the next page, Fire's average pending time is 15-16 seconds, underscoring the fact that pending times are also largely dependent on the availability of responders (there are "always" fire rigs available; not true for patrol cars). An outlier for fire dispatch times in Q2 2013 corresponds to the June 21 windstorm.

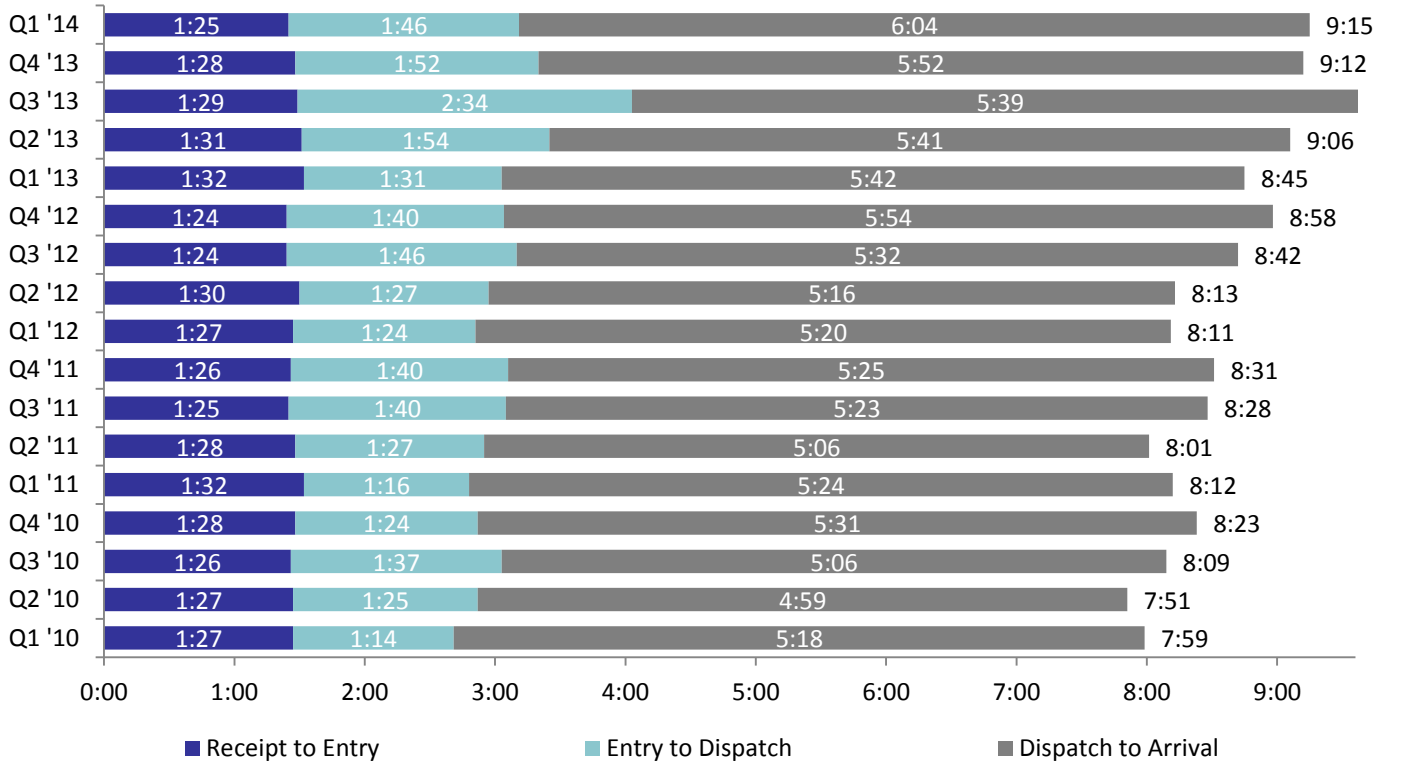
What will it take to achieve the targets?
Dispatch time is directly impacted by call volume and resource availability: fluctuations in MPD staffing levels have a direct impact on this measure. For Q3 2013, we saw a 12 percent increase in high priority police calls in 1st Precinct. 911 is developing a method to measure dispatcher performance that takes resource availability into account. We anticipate this will change the way we report this measure in 2015.

Fire Priority 1 Quarterly Response Time (in minutes)



Source: CAD

Police Priority 1 Quarterly Response Time (in minutes)



Source: CAD

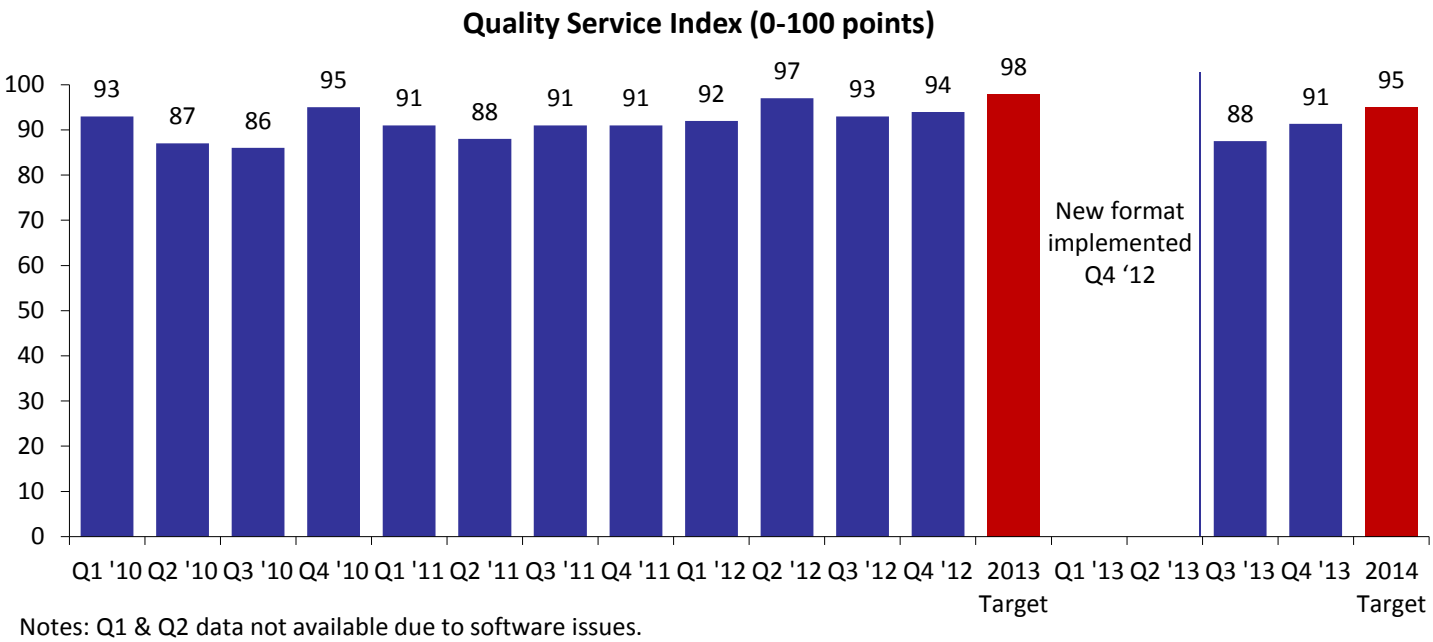
Source: MECC

Why is this measure important?
This is feedback directly from 911 callers and internal customers who have a service concern. Each transaction is crucial; any feedback gathered that provides opportunities for improvement is worthy of careful review. Even complaints that are not sustained can provide valuable information we can use to improve processes, such as managing expectations and providing exceptional customer service. 911 received 36 complaints of service in 2013.

Of the 36 complaints received, 24 were sustained. Sometimes the complaint is about something outside of 911's control; in these cases 911 refers the caller to the proper source to further investigate.

What will it take to achieve the targets?
The goal is to decrease the number of complaints overall and specifically the number that are sustained.

In 2012, 911 call volume increased as staffing levels decreased, and we saw an uptick in complaints. By taking action to onboard the staff we gained in 2013 and by reworking our Quality Assurance program to focus on problem areas, we saw a decrease in complaints for 2013.



Notes: Q1 & Q2 data not available due to software issues.
Source: MECC

Why is this measure important?
In the third quarter, a software/hardware change prevented us from continuing the established electronic review. Manual reviews continued to be performed for all significant incidents and new employees. We took this opportunity to follow a national trend in the industry, and move from a numerically focused program to a performance focused program. Launched in the fourth quarter of 2013, this move was specifically designed to reduce the emphasis on scores in favor of a system better equipped to pinpoint specific areas for improvement.

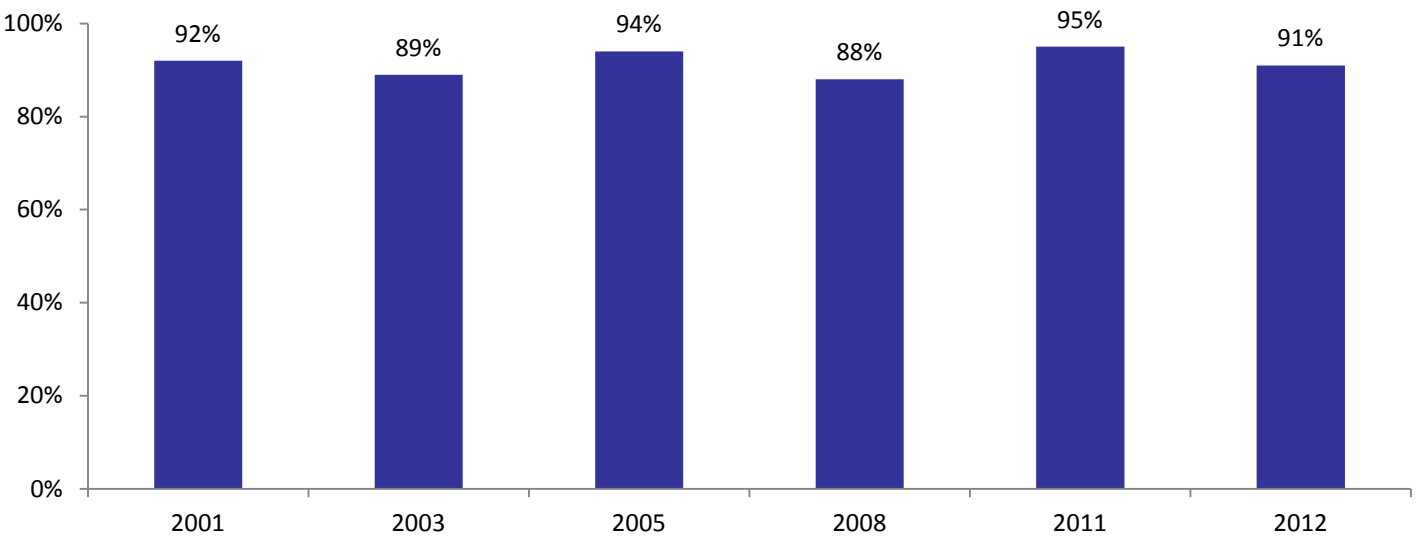
Quality assurance programs (QA) are relatively new to the 911 industry and many centers still do not have formal programs. The Emergency Medical Services pioneered the use of QA as part of their response protocol system and the newer 911 phone systems include QA modules.

What will it take to achieve the target?
The concept of systematically reviewing performance and identifying gaps is a best practice for risk management, and a requirement for certain accreditation 911 programs. Our call takers receive feedback on a weekly basis on randomly selected calls. Keeping feedback timely and frequent helps reinforce good work while discovering and correcting poor behaviors before they become habits that would negatively impact public safety.

Continued emphasis on quality assurance and consistent monitoring plus attention to training in areas where deficiencies occur will support progress in this area.

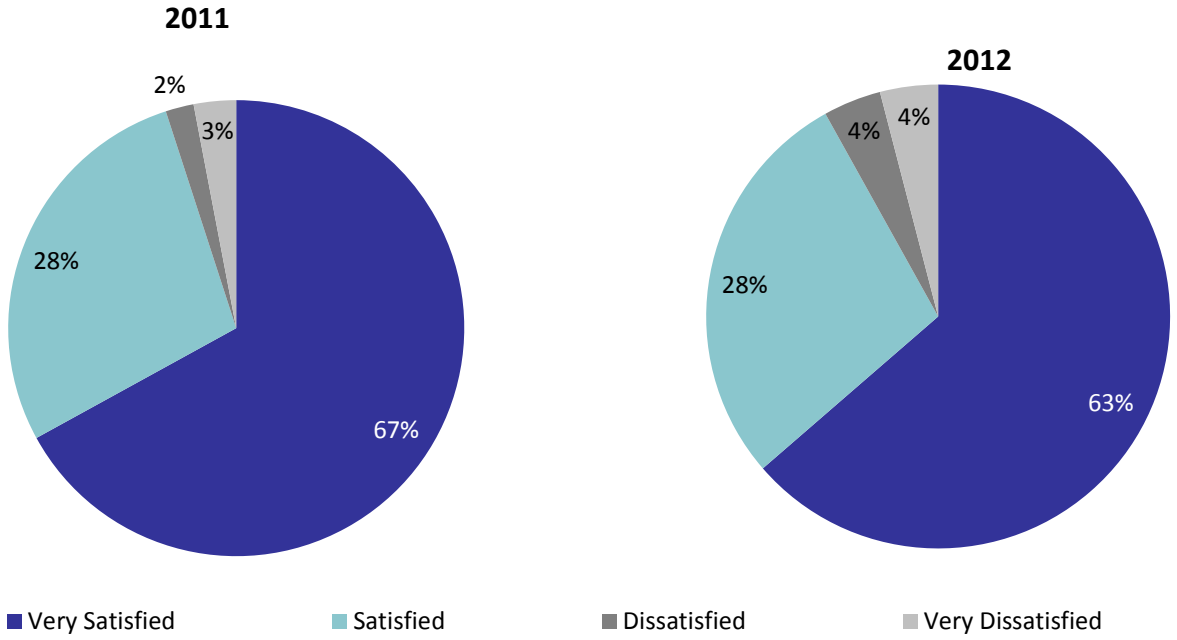
Resident Survey Measures on Next Page…

Satisfaction with Professionalism Shown by 911 Agents



Source: 2012 Resident Survey

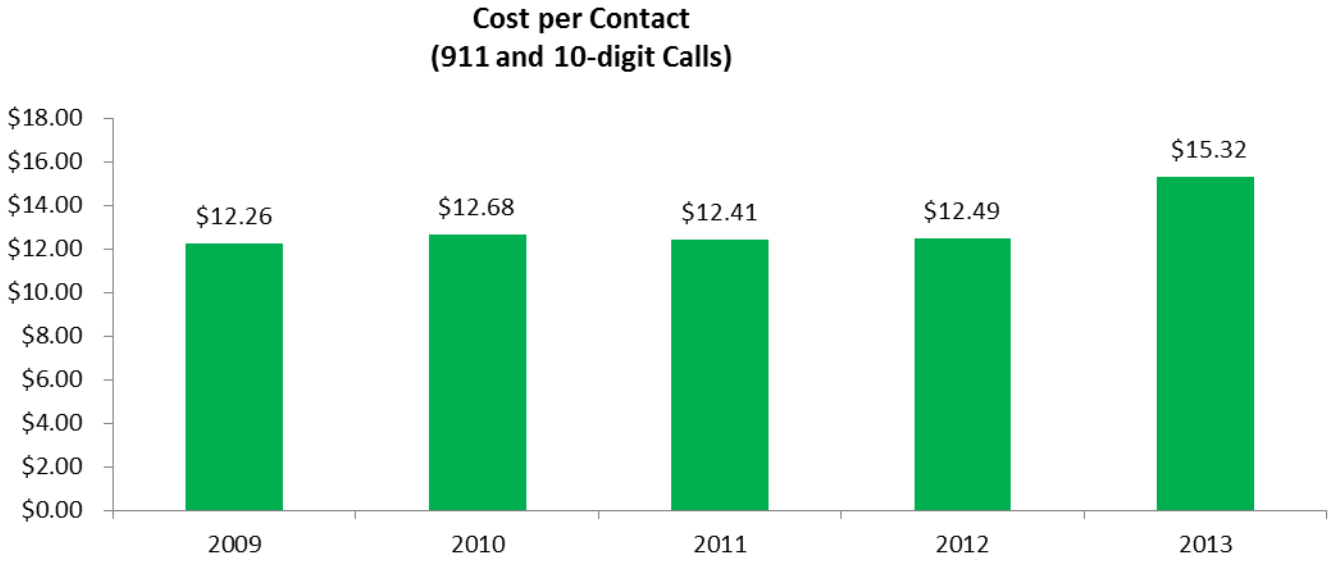
Professionalism Shown by 911 Agents



Sources: 2011 and 2012 Resident Survey

Notes:

1. Residents were asked the following question, " How satisfied were you with the professionalism shown by the 911 operator?
2. For comparison between survey years, the difference must be five percentage points or higher before they should be considered real changes in population sentiment. .

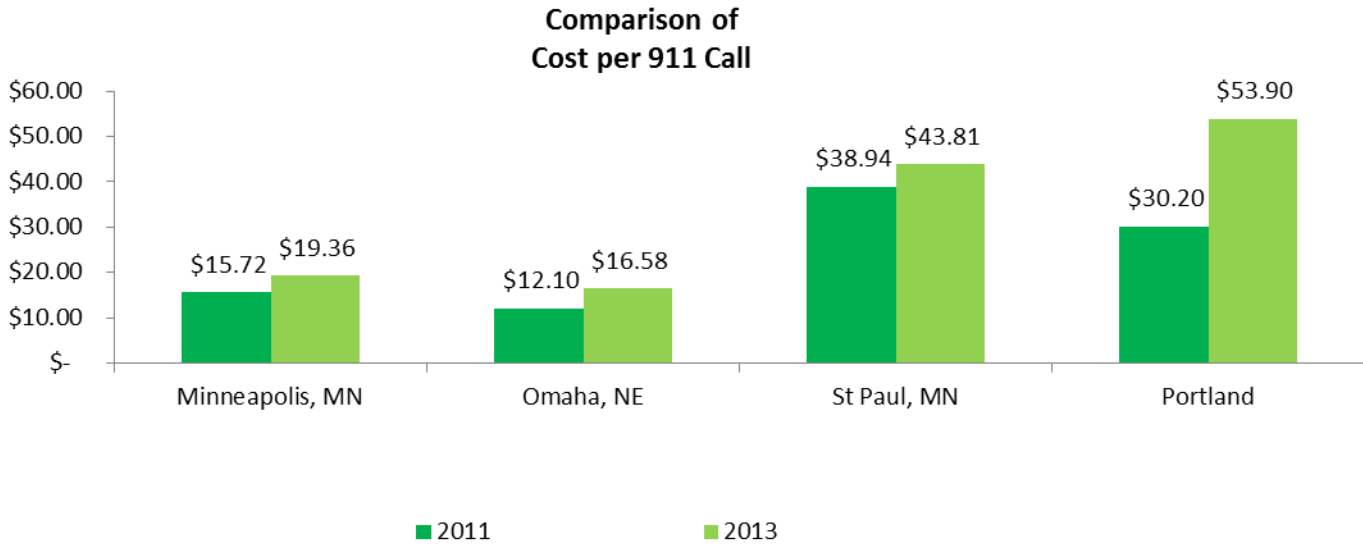


Note: Operating budget/number of contacts

Why is this measure important?
Although the value of 911 is difficult to quantify, it still exacts a financial cost that must be managed.

What will it take to achieve the targets?
911 Cost per Contact is derived from the operating budget divided by the number of contacts (911 and 10-digit calls) processed. Since 911 must continue to operate 24 hours a day, 365 days a year, with a high level of quality, and because 911 has no ability to generate revenue or to regulate the call volume received, it is difficult to arrive at a firm target for this measure.

911 continues to seek innovation in staffing, technology and call processing to influence this measure where possible.



Why is this measure important?

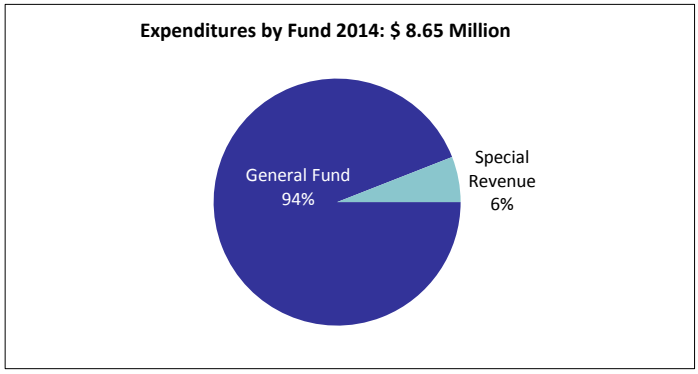
This comparison shows how much it costs to process a 911 call received in a 911 dispatch center in several different Metropolitan areas. By performing this comparison, we can gather information about what other cities are doing differently from Minneapolis. (Please note, the cost depicted above is for 911 calls only and does not include 10-digit calls.)

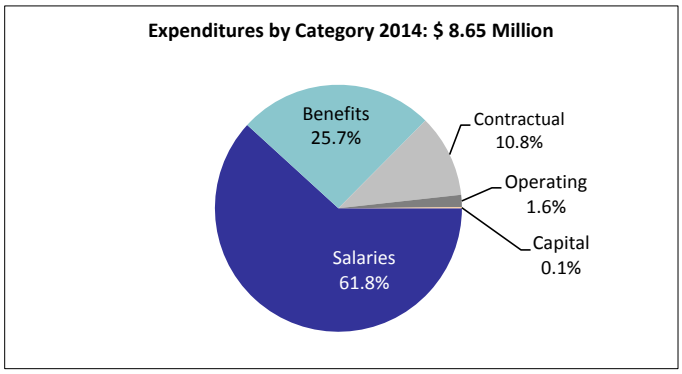
It is important to note that there are as many 911 center configurations as there are cities: no two are the same. This measure is challenging because there are many variables and cost drivers other than 911 calls.

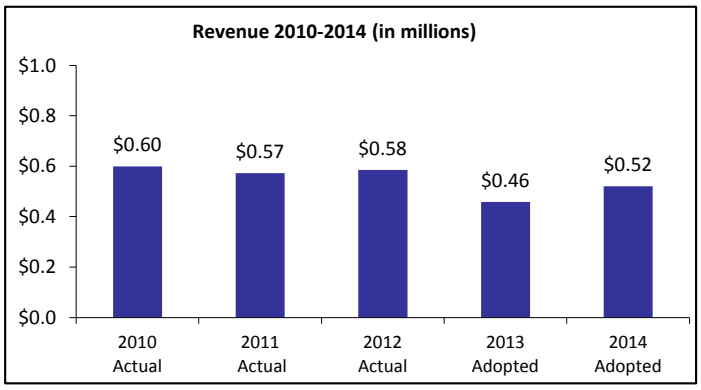
Future reports will include an expanded comparison with more comprehensive data from additional cities that have more similarities to Minneapolis.

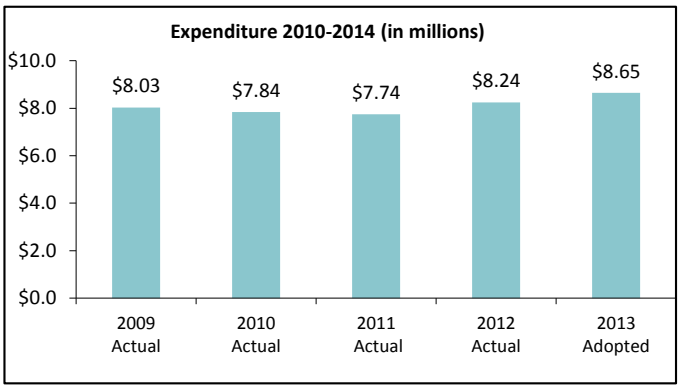
2013 Comparison									
Organization	**Population Served**	**Operating Budget**	**Staff**	**911 call volume**	**10-Digit Call Volume**	**$ per citizen**	**Cost per 911 Call**	**Cost per Total Calls**	**Service Level (% of 911 calls answered in under 10 seconds)**
Minneapolis, MN	382,578	$8,647,318	80	446,581	117,788	$22.60	$19.36	$15.32	88.6%
Omaha, NE	518,577	$ 7,144,870	74	430,923	198,567	$13.77	$16.58	$11.35	87.9%
Ramsey County, MN	493,325	$14,128,000	144	322,485	441,546	$28.64	$43.81	$18.49	95.1%
Portland, OR	583,820	$20,500,000	137	463,645	477,255	$35.11	$44.21	$21.78	98%

Management Dashboard: 911









Loss Prevention Data					
Year	2009	2010	2011	2012	2013
Workers Comp	$24,827	$8,768	$38,567	$2,995	$17,887
Liability Claims	$502	$0	$517	$0	$0

Average Sick Days Taken per Employee					
Year	2009	2010	2011	2012	2013
Days*	10.9	8.1	8.5	8.2	10.4

Workforce Demographics			
Year	12/31/04	12/31/12	12/31/13
% Female*	75%	74%	71%
% Employee of Color*	14%	17%	18%
# of Employees	88	71	78

Overtime Costs					
Year	2009	2010	2011	2012	2013
Hours	16,927	10,069	9,812	13,914	16372
Cost	$422,007	$259,389	$264,866	$383,523	$442,804

Employee Turnover and Savings					
Year end	2009	2010	2011	2012	2013
Turnover	8.0%	7.5%	6.7%	7.2%	8.2%

Vacant Positions					
Year end	2009	2010	2011	2012	2013
Percent of Total	13%	6%	3%	8%	7%

Performance Reviews Past Due in HRIS	
2-Apr-14	70%

Retirement Projections											
Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number	5	2	2	0	1	2	1	0	2	3	1
Cumulative %	6%	9%	12%	12%	13%	18%	13%	19%	22%	26%	27%

Notes:

Average Sick Days taken per Employee

A) Above data is based on the payroll calendar year not the calendar year.
B) Does ***not*** include employees who have separated from the ***department*** and may have used sick leave during the payroll year.
B*) Does ***not*** include employees who were in a suspended ("S") Pay Status at the end of a given payroll year.
B**) ***Includes*** employees who are in a paid ("P") Leave of Absence status and an unpaid Leave of Absence status ("L").
C) Employees can use more sick leave than earned in a given year (Assuming that they have accrued leave that has carried over).
D) Work Days Lost = Hours Used/Eight (8)
E) Usage Rate = Hours Used/Hours Earned
F) Overstated as it assumes everyone is FT and worked the entire year.
G) 911 became part of the Department of Regulatory Services on 07.01.2010.
H) 911 Separated from Regulatory Services on 01.01.2012.

Overtime Costs

A) OT amount - Fiscol. Reconciled with CRS and Data ware house queries.
B) Hours - based on HRIS management reports with payroll data

Workforce Demographics

A) Includes employee counts at year's end for 2004 and 2009
B) Only includes active FT regular employees.
* 2009 % female and employees of color include both 911 and 311 employees

Position Vacancies

A) Includes only budgeted positions.

Retirement Projections

A) The projected time an employee is eligible to retire is based on service time in HRIS. For employees who received pension service credit in other organizations, the actual year of retirement eligibility may be sooner than the projections show.