

Impact Evaluation

Chapter III

How effective is the 3-1-1 system in reducing 9-1-1 calls for service? Did the new operation improve the management of all citizen calls to police (both emergency and non emergency)? Did response times for high priority calls improve? Did citizen satisfaction with the police handling of calls for service change? Was patrol officer time freed to provide more opportunities for problem-oriented and community policing activities? These are among the questions we asked in determining the impact of 3-1-1 on police services.

To answer these questions, we relied upon official data from APD and conducted surveys of police officers, call takers, and those citizens who called 3-1-1.

Did 3-1-1 Change 9-1-1?

We examined calls for service data for both 3-1-1 and 9-1-1 systems in order to analyze the impact of the 3-1-1 system on the 9-1-1 call load. To obtain a complete picture of the respective call loads and their interactions, we attempted to triangulate data collected from four sources:

- Official City of Austin Police Department budget documentation
- data presented and reported by the Emergency Communications Division¹
- CAD data on computer printouts provided by the Emergency Communications Division
- CAD data prepared by the Research and Planning unit

Unfortunately, each available internal data source was organized using a different time period (i.e., fiscal vs. calendar years), differing variables, and unique field definitions. We made several attempts to disaggregate data and match time periods, but we were unable to reconcile these differences. On a more positive note, although totals varied from source to source, the trends depicted by each data set were consistent. In the sections that follow, we present overall totals from each data source for purposes of comparison. We then discuss call loads in more detail, based on the source containing the most appropriate level of data.

Total Number of 9-1-1 Calls

The most useful data on 9-1-1 calls for service came from official city budget documents and from information that appeared in presentations made by the Emergency Communications Division. Exhibit 2 depicts these data. In FY 1993, APD received more than 692,000 9-1-1 calls. The number then steadily increased, until in FY 2000, the annual call volume had grown to 915,462. The 3-1-1 system was introduced in September, the final month of FY 2001. No 9-1-1 call total is reported for FY 2001,² but FY 2002 shows a significant decline in 9-1-1 calls during the previous 2 years, down to FY 1994

Exhibit 2: 9-1-1 Calls Reported by APD Emergency Communications

Year	9-1-1 Calls	% Change
92-93	692,223	
93-94	736,010	6
94-95	754,154	2
95-96	764,515	1
96-97	759,539	-1
97-98	839,919	11
98-99	877,496	4
99-2000	915,462	4
2000-01	Not Reported	
2001-02	736,726	-

Introduction of 3-1-1 in Sept. 2001 →

levels. From FY 2000 to FY 2002, APD appears to have experienced a 20 percent drop in the number of 9-1-1 calls, a decrease that was realized in spite of heightened public concerns about safety, fostered by the terrorist attacks on September 11, 2001.

We drew 9-1-1 call totals from City of Austin budget documents beginning with FY 1999, continuing through FY 2003.³ These totals differed significantly from the Emergency Communication Division numbers cited above, by more than 100,000 calls. The downward trend in the total number of 9-1-1 calls is consistent, however, as it appears in both sources.

Exhibit 3 is a comparison of numbers taken from the two data sources, for FY 1999 through FY 2003. The numbers reflect APD's anticipation of a further decline in the number of 9-1-1 calls for FY 2003.

Exhibit 4 shows 9-1-1 call numbers by month, relying on APD Emergency Communication Division data. Comparing FY 2002 to FY 2003, it appears that APD will realize a reduction in the 9-1-1 call load. Although it is unlikely to reach 17 percent, as projected, if the trend does continue it will represent a 10 percent reduction. In real numbers, the load on the 9-1-1 system will have been reduced by more than 72,000 calls during FY 2003. If call numbers remain at FY 2002 levels in August and September of FY 2003, the 9-1-1 call load will have declined by more than 25 percent

Exhibit 3: Comparison of 9-1-1 Calls Reported

Introduction of 3-1-1 in Sept. 2001

Year	9-1-1 Calls Reported by Emergency Communications	% Change	9-1-1 Calls Reported in the City of Austin Budget	% Change	Difference
98-99	877,496	4%	775,269		102,227
99-2000	915,462	4%	797,275	2.8%	118,187
2000-01*	Not Reported		800,288	0.4%	
2001-02	736,726	-	734,341	-8.2%	2,385
2002-03**			612,450	-17%	

* A calculated figured based on supporting budget documentation (Budget Presentation) stated that 854,136 9-1-1 and 3-1-1 calls were received by the Communication Center. 3-1-1 was officials operating on September 17, 2001, and 53,850 3-1-1 calls were received during September.

** Estimated

since FY 2000. This finding is consistent with the decline in 9-1-1 calls for police services documented in the study of Baltimore's 3-1-1 system.⁴

Did Call Management Change?

The second 3-1-1 goal was to improve management of all citizen calls to the police, both emergency and non-emergency. According to data from the City's budget documents from FY 1999 to FY 2002, the number of 9-1-1 calls that resulted in an officer being dispatched increased by 10 percent, while

the absolute number of calls to 9-1-1 decreased; therefore, a higher *percentage* of all 9-1-1 calls were dispatched. Of 800,286 incoming 9-1-1 calls reported in FY 2001, 42.5 percent (340,485) were reported as dispatched in budget documents. In FY 2001, the percentage of calls reported as dispatched (360,025) rose to 49 percent of all 9-1-1 calls received (734,341). (See exhibit 5.)

Computer Aided Dispatch (CAD) data from Research and Planning and the Emergency Communications Divisions were used to further

analyze dispatch trends, by priority level and by area. Once again, we found differences between the numbers from the two divisions. An in-depth analysis of those data would have required a degree of knowledge about call types that is beyond the scope of this study.⁵ However, we were able to provide limited analysis of CAD data to highlight trends in dispatched calls. This analysis provides insight into the types of calls received by APD and the activities of APD officers.

CAD data provided by the Research and Planning Division show that overall, CAD calls increased by 5 percent between calendar years 2000 and 2002, corresponding with the

Exhibit 4: Change in 9-1-1 Calls by Month

Month	FY 2002	FY 2003	% Change	Difference in # of Calls
October	66,518	57,004	-14	-9,577
November	60,889	53,893	-11	-6,996
December	59,863	54,810	-8	-5,053
January	57,224	51,555	-10	-5,669
February	54,605	34,691	-36	-19,914
March	63,879	57,272	-10	-6,607
April	63,337	57,057	-10	-6,280
May	68,685	62,423	-9	-6,262
June	62,985	58,200	-8	-4,785
July	61,415	59,837	-3	-1,578
August	62,133	-	-	-
September	55,130	-	-	-
Total	619,463	546,742	-12%	-72,721

Exhibit 5: Dispatched Calls Reported

Year	Dispatched Calls Reported in the City of Austin Budget	% Change
98-99	325,848	
99-2000	332,427	2%
2000-01	340,485	2.4%
2001-02	736,726	5.7%
2002-03**	346,396	-4%

Introduction of 3-1-1 in Sept. 2001 →

introduction of 3-1-1. (See exhibit 6.) The increase was 8 percent from 2001 to 2002. (Fewer CAD calls were reported in 2001 than in 2000 because of a drop in officer-initiated efforts in 2001.) The increase from 2001 included 18,135 more officer-initiated efforts and 23,996 dispatched calls. This finding of an absolute increase of more than 23,000 dispatchable⁶ calls was perplexing, given that total 9-1-1 calls were reduced during 2001 and 2002.

In our next analysis, we use the same data set to examine calls by priority level. Exhibit 7 shows that Priority One and Priority Three calls decreased each year, beginning in 1999. This is a positive outcome, since Priority One calls are the most urgent and complicated ones - resource intensive, requiring officers to interrupt their current activities in order to respond to the emergency without delay.

Analysis was somewhat complicated by the fact that APD apparently modified the types of calls that were assigned to each priority level sometime during this period. We suspect this change may account for at least some of the increases shown in Priority Two call numbers. On the other hand, the 3-1-1 system may have partially contributed to the

decrease in the number of Priority Three calls, as well as for the increase in the number of Priority Four calls during 2002. CAD data by area and priority level (exhibit 8) document a decrease from 2001 to 2002 in Priority Three calls in every policing area. We note, however, that the creation in 2002 of the new “George” and City areas downtown confounds the analysis. This changed the physical boundaries of existing policing areas.

To understand the decrease in Priority One calls, we examined the types of calls represented in Research and Planning CAD data. Priority One calls decreased by more than 24,000 calls from FY 1999 to FY 2002. Exhibit 9 highlights call type variables that show large increases; this degree of change suggests that the calls were reassigned to other priority levels, or they may have been decreasing within the call population more generally. The calls were organized by the following categories: “person down,” assisting EMS (emergency medical services), assisting with collisions involving EMS, responding to suspicious persons, addressing disturbances of a particular type, and “nature unknown.” Inversely, 9-1-1 “hang-up” calls at residences appear to have been reclassified at some point as Priority One calls, where we see an increase of almost 23,000 calls from 1999 to 2002. (These calls were not included in the 1999 Priority One calls.)

It does appear that at least a portion of the disturbance calls and suspicious person calls were simply reclassified as Priority Two calls. The number of Priority Two “disturbance or other

Exhibit 6: Dispatched Calls: Net of Officer-Initiated Efforts

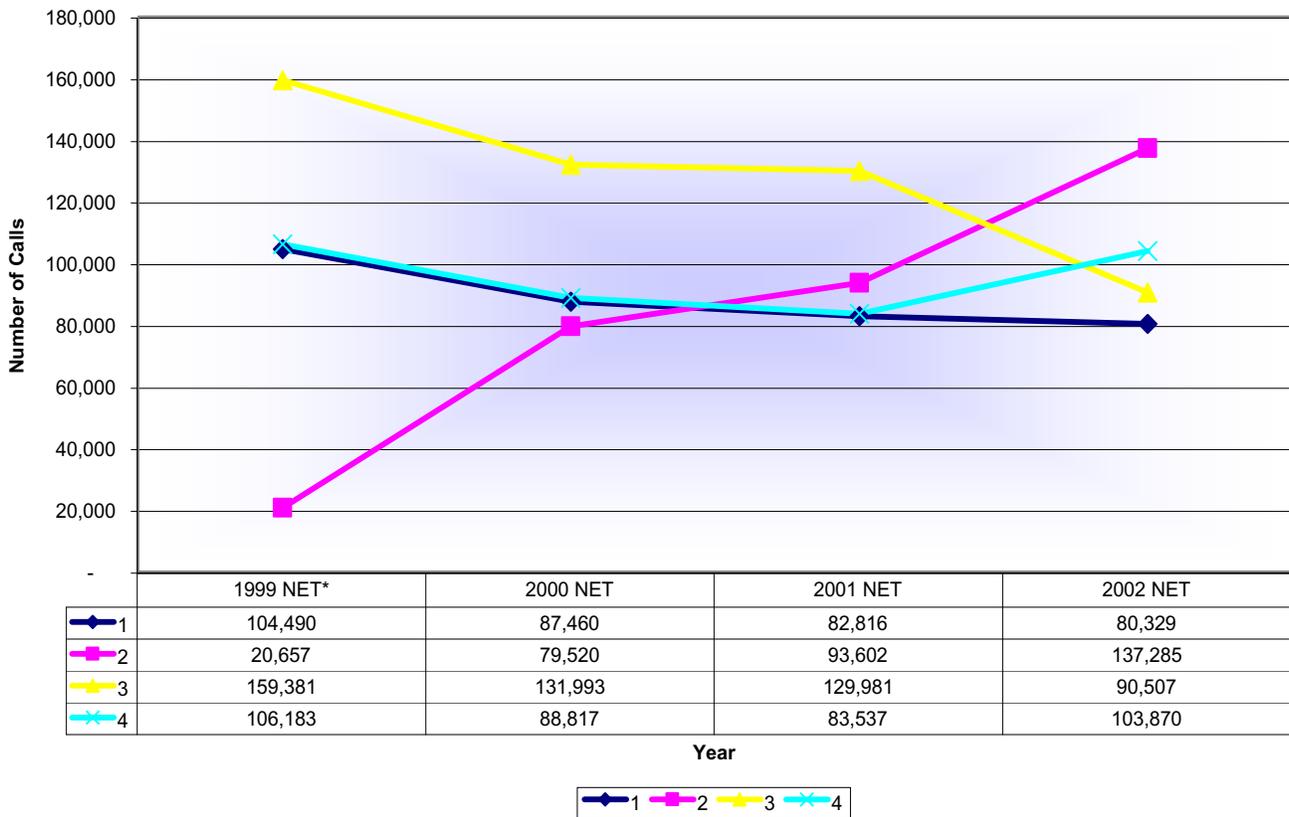
Year	Total CAD Calls	Officer-Initiated Efforts*	Dispatched calls: Net of Officer-Initiated Efforts
1999	546,079	155,344	390,728
2000	332,427	155,054	387,813
2001	340,485	138,762	390,001
2002	736,726	156,897	413,997

Introduction of 3-1-1 in Sept. 2001 →

** Officer-initiated calls include traffic stops (TS), Special Assignments (SA), and Directed Patrols (DP).

Exhibit 7: CAD Calls by Priority Level and Year

Net CAD Calls by Priority Level and Year



calls” increased from 230 calls in 1999 to 4,126 calls in 2002. It is unclear what happened to the remaining 14,000 “disturbance or other” calls; we suspect that they were reclassified to a new type of call, but it may be that fewer reports were received about this type of disturbance.

Priority Two “suspicious person” calls increased from 302 calls in 1999 to 12,704 calls in 2002. The majority of “nature unknown” calls disappeared; these were most likely to have been reclassified into more specific call types. The increase in Priority Four calls was likely due to the increase in

the total number of calls received by APD; this is discussed below.

Summary. Although the number of 9-1-1 calls decreased, the number of dispatched calls increased from 42 percent of calls to 49 percent of calls. Priority One and Priority Three calls decreased, but Priority Two and Priority Four calls increased. Changes in the call assignments may have caused the changes in the first two priority levels. However, we suspect that 3-1-1 impacted the changes in the number of Priority Three and Priority Four calls.

Exhibit 8: CAD Data by Policing Area

Priority	% Change in # of Dispatched Calls by Priority Level							
	Adam	Bakr	Char	David	Edwd	Frnk	Grge*	City*
1	-10.97	0.40	-10.02	-4.60	-9.94	-0.37	154.26	304.87
2	32.00	57.20	81.79	65.42	65.42	74.25	780.77	9036.54
3	-42.94	-31.29	-34.41	-33.43	-33.43	-32.22	99.34	216.88
4	-5.62	-6.21	-5.99	0.94	-15.11	5.64	173.26	634.20

*George (Grge) and City are new police areas. Calls were transferred from Baker (Bakr) District to create these downtown areas.

Exhibit 9: Priority One Call Types

Call Type	1999	2002	Difference in # of Calls (1999-2002)
Person down	1,716	466	-1,250
Assist EMS	3,227	49	-3,178
Collision/EMS	4,761	104	-4,657
Suspicious person	9,472	223	-9,249
Disturbance/ other	19,685	1,242	-18,443
Nature unknown	21,625	2,974	-18,651
Total			-55,428

To understand the impact of 3-1-1 on the Department's total call load, one needs to understand the public safety environment that existed when 3-1-1 was put into operation. The national tragedies of September 11, 2001, stunned the country exactly one week before 3-1-1 opened for business. September 17, 2001, had been the scheduled kick-off date. Law enforcement and 9-1-1 call centers nationwide faced enormous challenges, not the least of which were increased calls for service. Afterward, the public

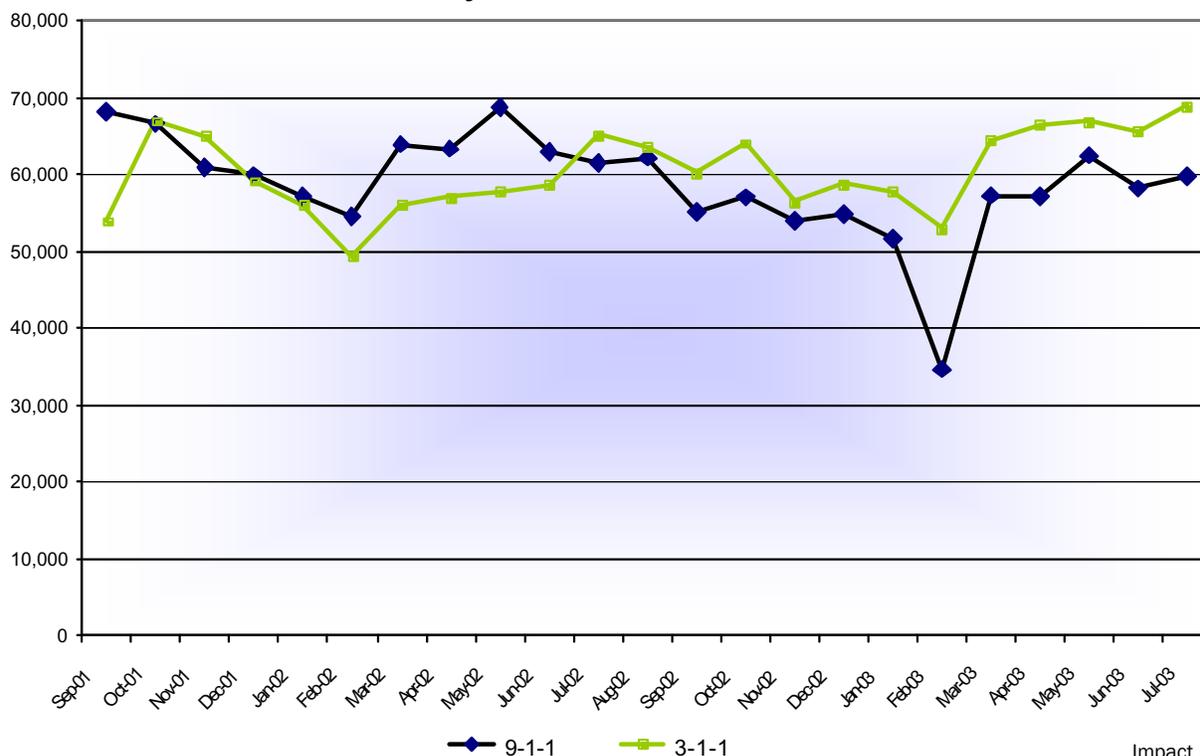
Impact of 3-1-1

was more prone to report suspicious activity and more willing to contact public safety officials for information when they had safety concerns. Calls for service increased by 65 percent from September 11, 2001, to January 2002.⁸ A *USA Today* editorial reported that many citizens now viewed themselves as "first responders."⁹

With the inception of 3-1-1, the total number of calls to APD increased substantially. In FY 2002, APD received 1,445,271 calls, with more than 700,000 calls received at the new 3-1-1 center. This represents a 70 percent increase in the total call volume for the Department. Since then, monthly call load levels have been similar for both 9-1-1 and 3-1-1, as shown in Exhibit 10. Some would question whether the sizable increase in calls for service, all originating with the new 3-1-1 service, is a good outcome. Has the management of all citizen calls to the police – both emergency and non-emergency calls -- improved?⁷

The additional media coverage gave the Department an unanticipated platform for educating the public on the importance of reserving 9-1-1 for emergency calls. They initiated and participated in as many media opportunities as possible with television, radio, and the print press. In the wake of the

Exhibit 10: 9-1-1 and 3-1-1 Calls by Month



tragedies, news media allotted significant coverage to the launch of 3-1-1. One television station produced a 3-minute piece on the new service on its official kick-off date. Later opportunities expanded the reach of this coverage beyond Austin audiences. For example, in a *USA Today* article dated March 2002, Ed Harris, Emergency Communications Manager for the Austin Police Department, lauded the success of 3-1-1 after 9/11. “3-1-1 has been a miracle. It has been a godsend for us... 3-1-1 saved us not only from having our 9-1-1 system swamped, but saved our citizens who had true emergencies, such as heart attacks and crime in progress, from getting a busy signal.”¹⁰ APD’s quick action and consistent follow-through with public information have clearly driven the wide acceptance and use of 3-1-1.

Citizens benefited from being able to contact police for general information in this time of great uncertainty. They also used the system to report non-emergency incidents, such as the rash of flag thefts that peaked after the tragedy. The total number of calls to APD increased during the terrorist attacks and anthrax scares, but calls to the APD 9-1-1 center *eased*. The positive impact of the 3-1-1 system on emergency systems held up even during a period of public crisis and its uncertain aftermath.

Since 9/11, crime has increased in Austin, perhaps in part because of the downturn in the economy. In addition, police have been diverted from everyday patrol duties to homeland security responsibilities, including 17 APD officers who were called to military duty as reservists. Index crime increased by 20 percent from September 2000 to January 2001, according to APD FY 2004 budget presentation materials. Through 2002, the situation appears to have improved; the FBI Uniform Crime Report data show only a one percent increase in index crimes from 2001 to 2002. Nevertheless, crime did increase in the most serious categories during the same period that calls to 9-1-1 were decreasing.

In addition to having more frequent reasons to call the police, citizens today have a new tool to use – the cell phone. Nationally, 137 million people now own cell phones. Emergency 9-1-1 calls dialed from cell phones have increased from 193,333 in

1985 to over 56.9 million in 2001.¹¹ Some predict that the majority of emergency calls now or soon will originate from cellular telephones.¹² Austin callers often use cell phones to contact the police, especially to report traffic incidents. As both APD and local cellular companies, known as competitive local exchange carriers (CLEC), quickly learned, Austinites embraced 3-1-1 in non-emergency and traffic situations and expected it to be offered as a cellular service. Exhibit 11 shows that CLEC calls to 3-1-1 have steadily increased, from 3 percent at the introduction of the service to 16 percent one year later.

Considering these factors - heightened public safety concerns following the terrorist attacks, anthrax, and the war on terrorism; escalating crime rates within the City; and exploding cellular telephone use - we assert that 3-1-1 was timely. It improved management of calls for service, and it may even have prevented a 9-1-1 call load crisis in Austin. According to a public report from APD Emergency Communications managers, 3-1-1 reduced the 9-1-1 call load by more than 30 percent in 2002, and it is projected to have reduced it by more than 40 percent since 3-1-1 first became operational. To make these calculations, APD anticipated what the 9-1-1 call load would have been without 3-1-1, replicating the month-to-month rate of increase in demand experienced in the previous year. Although call loads cannot be projected with certainty, this approach is a straightforward and reasonable model, given the historical data. APD’s original projection, that without preventive action 9-1-1 calls would exceed one million, was probably accurate; this would have created a tremendous burden on 9-1-1 staffing and the aging system.

The public education campaign succeeded in exposing citizens to the new service and convinced them to call 9-1-1 with less frequency, returning 9-1-1 call loads to 1994 levels. This outcome improves the management of 9-1-1 calls.

What Was the Response to Calls?

Next we asked: What are the 3-1-1 calls about, how are they being managed, and how are they affecting operations in the Police Department to improve

Exhibit 11: 3-1-1 Calls from Competitive Local Exchange Carriers (CLEC), including Cellular Users

Month	Year	# of CLEC Calls	CLEC as % of Total
September	2001	1,842	3
October	2001	6,646	10
November	2001	7,714	12
December	2001	5,851	10
January	2002	5,516	10
February	2002	5,347	11
March	2002	6,158	11
April	2002	6,187	11
May	2002	6,231	11
June	2002	7,382	13
July	2002	8,502	13
August	2002	9,395	15
September	2002	9,408	16

customer service? How do 3-1-1 calls improve the response times for high priority calls? Do they increase citizen satisfaction with the police handling of calls for service? Do they free patrol officer time to provide more opportunities for problem-oriented and community policing activities?

APD Response Times. Response times are a continuous concern for APD. “Over the course of 2001, Austin police officers’ average response to Priority One emergencies – the most serious calls – crept up from 8 minutes 20 seconds in January to 9 minutes 1 second in December, while the number of crimes committed climbed 12 percent. Now the entire department, from street cops to the chief, are pushing to drive that response time back to 8 ½ minutes, still a longer time than other big Texas cities.”¹³ APD set 8 ½ minutes response time as their goal, considering the size of their forces and the monthly call load, along with traffic conditions, construction delays, and road and communication technology factors.

In FY 2001, Austin 9-1-1 staff averaged 1 minute 20 seconds to take an emergency call. Dispatch staff averaged 1 minute 50 seconds in FY 2001¹⁴ (see

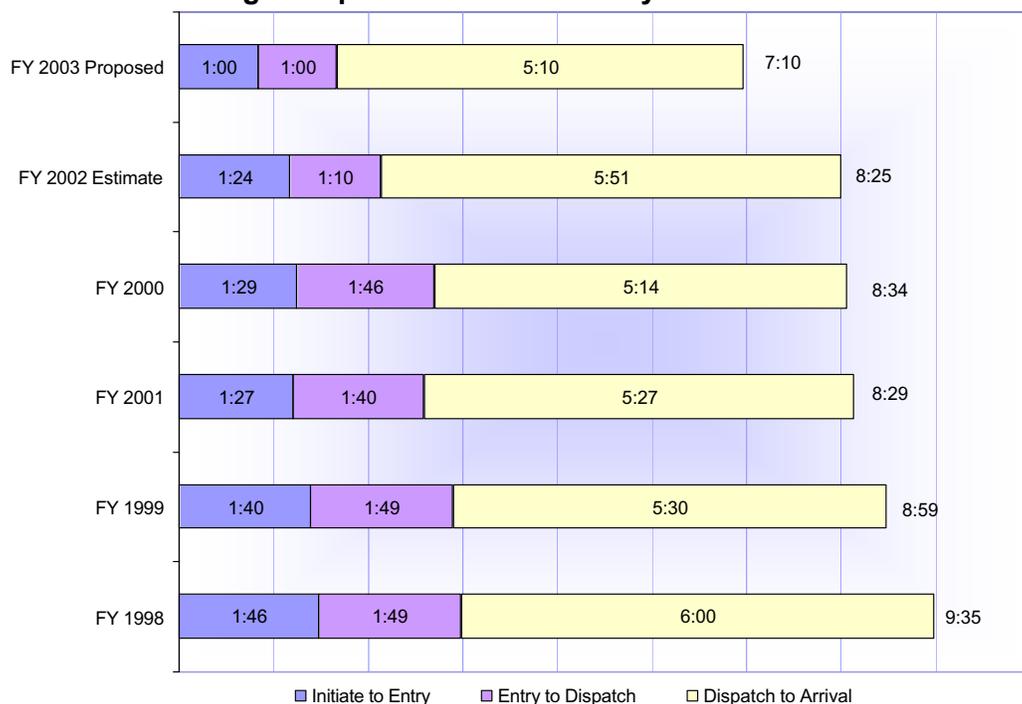
exhibit 12). Emergency Communications Division managers believe that the 3-1-1 system augmented with policy improvements should reduce their segment of the overall response time total. Timing data suggested that improvements were made in the dispatch portion, with response times reduced 43 seconds to 1 minute 7 seconds in FY 2002. We believe that this reduction was attributable in part to 3-1-1.

The number of dispatchable calls increased in part because Priority Two and Four calls increased. We suspect that the increase of more than 20,000 Priority Four calls may be associated with 3-1-1. As certified 9-1-1 call takers, 3-1-1 call takers have decision-making authority to dispatch 3-1-1 calls automatically whenever appropriate, while they are attempting to collect address and name information.¹⁵ However, it is impossible to track whether this is the case, because APD cannot currently distinguish between CAD calls from 9-1-1 or 3-1-1, outside of some 3-1-1 calls that lack address data.

Considering the 70 percent increase in the number of calls for service, we would speculate that having a non-emergency call number may encourage police reports where none might have been made before, e.g., for thefts of items from a vehicle. During our observations of 3-1-1 call takers, we noted that call takers had discretion when determining whether a “report only” call is a Priority Four or Teleserve call. Priority Four calls are dispatched as soon as possible; they are defined as incidents where protection of life and property is not an issue and a delay is not likely to adversely affect investigation. Examples include abandoned property, checking welfare, fireworks violations, and prostitution. Teleserve calls are defined as incidents where (1) no threat to life or injury to a person exists, and/or there is no retrievable evidence; (2) it is unlikely that a suspect can be apprehended; and (3) the incident is “old” and there is little or no suspect description available. Examples include auto thefts, assaults by threat, credit card abuse, requests to locate a missing person, and theft.¹⁶

The increase in Priority Four calls may be associated with a combination of the increased willingness of citizens to call the police using 3-1-1 and the

Exhibit 12: Average Response Time for Priority One Calls



Impact on Call Takers

To assess the impact of 3-1-1 on APD call takers, we conducted two surveys of 3-1-1, 9-1-1, and dispatchers and their supervisors in Fall 2001 and 2002. The first survey asked about their views on calls for service, police-citizen interactions, and knowledge about and the impacts of the new 3-1-1 system. We also asked respondents for their perceptions, in general, of the Austin Police Department, and the community that it serves.

One year later, in Fall 2002,

we repeated the survey, altering five questions and adding three new questions about the 3-1-1 system after implementation. We also added five new questions about the perceived impact on call taker and dispatcher workload of September 11, 2001.

In the first wave, 106 surveys were completed while 95 were completed in the second wave.

During each wave, we surveyed all call takers working each shift on one particular day. This did not allow us to survey every call taker, because shifts varied from day to day. However, we did reach a representative sample. The respondent samples for both survey waves are similar with respect to the number of call takers reached and distributions across the units, as well as demographically. The following summary describes and compares results from the two survey periods.

Emergency Communications Work. We initially asked respondents for their views of emergency communications work in general, in order to establish a context for interpreting their responses on community interaction and engagement, and organizational adaptation or change, under the 3-1-1 system. These questions focused on understanding

decision of the 3-1-1 call taker to more readily dispatch “gray area” report calls. Without the ability to track the type or number of calls dispatched by 3-1-1, we can only examine changes in the number of Teleserve reports. Thus, we sampled Teleserve reports to gain a sense of the types of report calls that were being directed to 3-1-1.

Prior to the introduction of 3-1-1, official budget materials documented that the APD Teleserve unit took 37,521 reports in FY 1999. The operation expanded its hours to 24 hours a day in FY 2001, when it processed more than 45,656 reports. During the first full year of operation, 3-1-1 call takers completed 51,836 Teleserve reports, representing 7 percent of all 702,964 3-1-1 calls answered. The number of Teleserve reports only increased 13.5 percent, while the number of calls for service increased 70 percent. If citizens were not calling to make reports, why were they making the remainder of the calls? Were citizens confused about calling 3-1-1 versus 9-1-1? Or were 3-1-1 call takers becoming the City’s all-purpose 4-1-1 service, as they feared?

what call takers viewed as emergency communication staff's roles and responsibilities.

Responses from both surveys were remarkably similar in this category. The vast majority of respondents (more than 95 percent in both surveys) believed that answering calls effectively was by far the call takers' most important responsibility. Further, 83 percent in the first wave and 86 percent in the second wave believed that actually assisting citizens with their specific needs was just as important as how quickly calls were answered. Eighty percent of respondents in both surveys believed that a good 3-1-1 call taker will try to find out how to solve the caller's issue during the call.

With the introduction of 3-1-1, the percentage of respondents who felt that there were too few call takers to meet the call for service demand increased by 8 percent, from 68 percent in 2001 to 70 percent in 2002.

Knowledge and Views of 3-1-1. In the first survey (before 3-1-1 implementation), 80 percent of respondents reported being aware of 3-1-1 as a universal non-emergency telephone number. When asked in the second survey about the impact of 3-1-1 on their day-to-day work, 57 percent of the respondents reported that 3-1-1 had made positive changes in their job responsibilities, an increase of 5 percent over the 2001 responses. Asked about their preferred assignment, 32 percent in the first survey said they preferred 9-1-1. In the second survey, this percentage had increased to 51 percent. Sixteen percent and 18 percent, respectively, preferred working in 3-1-1.

During the first survey, 20 percent had believed that 3-1-1 would increase their workload; in the second survey, 34 percent reported that it had done so. Almost half of respondents in both surveys felt that 3-1-1 had increased their knowledge about APD and the City of Austin. In the second survey, 90 percent of call takers felt that 3-1-1 had improved call loads for patrol officers, an increase of 8 percent over their 2001 responses. Eighty-four percent felt that 3-1-1 had improved customer service within the APD Emergency Communications Division.

Organizational Adaptation. Organizational adaptation or change within a department is a major component of community policing. We asked respondents about their perceptions of management support for emergency communications with respect to the amount of time provided, information exchanged, and recognition given. Finally, we asked call takers about their perceptions of department management.

Views of Department Management. Half of respondents in both surveys felt that executives understood call takers' day-to-day jobs. Sixty-four percent of 2001 respondents felt that top leaders had made department priorities clear, compared to 70 percent of 2002 respondents. More than 80 percent felt that the Emergency Communications Division was effectively handling calls, in both surveys.

Impacts of Terrorism. After 9/11, the role of public safety agencies was perceived by the public to have changed significantly. During the first wave of surveys, call takers were receiving a new type of 9-1-1 emergency call, reflecting public concerns about anthrax and weapons of mass destruction. In our study, we anticipated that the shifting police role would have an impact on perceptions of 3-1-1. In the second wave of surveys conducted one year after 9/11, we asked call takers five questions about the impact of terrorism on workloads and their ability to do their jobs. Only 50 percent of call takers felt that calls for service had increased as a result of heightened public safety and security concerns. Seventy-three percent of respondents felt that officer responsibilities had increased. Thirty-six percent felt that APD call takers had received adequate training, and just 22 percent felt that they had received adequate equipment to do their part in addressing terrorism concerns. Fifty-five percent of respondents felt that citizens were willing to call 3-1-1 regarding terrorism security concerns, and 66 percent felt that APD had done an excellent or good job of responding to crisis and emergency situations such as terrorist threats, flooding, and racial tensions during the past year.

Perceived Calls Per Shift. We asked call takers in each unit about the number and types of calls they were handling. 9-1-1 calls takers perceived

that they were receiving fewer calls than before in each priority area except non-emergency, non-police calls (exhibit 13), totaling approximately 10 fewer calls per shift.¹⁷ We did not receive an adequate number of responses from dispatchers to generalize about their perceptions on call types.

Exhibit 14 reflects the perception of 3-1-1 call takers that their call loads dropped over time. However, the statistics show that 3-1-1 call loads consistently increased instead. Perhaps as call takers became more familiar with their roles, they felt less overwhelmed and perceived that they were answering fewer calls.

We asked 3-1-1 call takers to recall the nature of the non-emergency calls they received. Call takers perceived that the largest number of calls they handled were for directory information and general information requests (exhibit 15). 3-1-1 call takers estimated that they spent less than 1 minute with 20 percent of the calls, 1 to 3 minutes on 30 percent of the calls, and 4 to 5 minutes on 40 percent of the calls. Call tracking data supported their estimates; the average 3-1-1 call time was 2 minutes.

To learn more about the nature of the 3-1-1 calls, we look at their origination points. These data are generated by the 3-1-1 call tracking switch software purchased by APD. Calls to 3-1-1 can be generated by:

- Users dialing 3-1-1 from residential or business phones (land lines)
- Users dialing the seven-digit APD main number, the former PBX number. These calls were typically requests for information or for APD staff.
- Users dialing the seven-digit Teleserve number

Exhibit 13: Average # of Calls Per Shift As Perceived by 9-1-1 Call Takers

Priority Level	2001 responses	2002 responses	Difference
1	9.0	5.9	-3.10
2	14.6	11.2	-3.42
3	10.1	8.6	-1.47
4	8.4	7.1	-1.29
5	-	-	-
Non-Emergency Police Call	11.7	8.8	-2.90
Non-Emergency, Non-Police Related Call	6.0	7.8	1.80

- Users dialing 3-1-1 from a cell or pay phone through local exchange providers
- Wrecker and impound services calling APD about vehicles towed and impounded, as required by city ordinance

We obtained these data for September 2001 to September 2002, when 764,780 calls were made to 3-1-1. Calls to the seven-digit Teleserve number represented almost 21 percent (159,364) of the total calls (exhibit 16). This finding raises questions about why only 52,000 Teleserve reports were completed, especially since Teleserve reports could be generated from calls placed with the seven-digit Teleserve number, 3-1-1 (dialed either way), or as a result of calling the APD main number.

Exhibit 14: Average # of 3-1-1 Calls Per Shift As Perceived by 3-1-1 Call Takers

Type of Call	2001 responses	2002 responses	Difference
Emergency Police Calls - should have been a 9-1-1 Call	3.8	6.2	-2.4
Non-Emergency Police Calls	33.6	30.0	-3.6
Non-Emergency, Non-Police Related Call	17.6	13.0	-4.6
Total	51.2	43.0	-8.2

Since APD was unable to use the CRM software to gather information about the nature of each 3-1-1 call, we are unable to answer those questions. We raise these issues about the “report calls” because of their possible link with the increase in the number of dispatchable Priority Four calls. If APD seeks to focus on reducing the officer element of the response times and to free officer time for other activities, further examination of the nature of calls to 3-1-1 is needed. Performance objectives limiting the amount of time spent per call could inadvertently

8. Burglary of Non-Residence (5)
9. Harassment (4)
10. Violation of Protective Order (3)

Eighty-two of the reports were made within a week of the precipitating incident; 73 were reported within a day. Fifty-three percent were located in five census tract areas. This is a sample of the types of information that could be gleaned by collecting and analyzing data with the CRM software. It could be used to identify potential or emerging hotspots

Exhibit 15: Type and Nature of 3-1-1 Calls (Perceived)

Type of Call	2001 responses	2002 responses	Difference
General Information Request - Police Related	17.2	13.7	(3.5)
General Information Request - Non-Police Related	12.6	10.2	(2.4)
Teleserve Report	8.9	8.4	(0.5)
Directory Information - PBX Calls	14.0	9.6	(4.4)
Report of Problem Referred to District Representative	4.5	5.1	0.6
Other	1.0	13.0	12.0
Total	58.2	60.0	1.8

and problem types, and to examine how information about police department efforts such as 3-1-1 are being received and used by citizens. For example, it could be that neighborhood associations and/or District Representatives¹⁹ are actively promoting 3-1-1 in census tract 18. In the next section, we look at the impacts of 3-1-1 on problem-solving efforts by police.

motivate call takers to dispatch report calls whenever feasible, rather than take time to complete reports over the phone. This outcome would negate one of the primary reasons for having 3-1-1, to reduce the amount of time officers spend responding to dispatch calls.

We sampled 105 Teleserve reports received in May 2002, to get a snapshot of the types of reports that the system was receiving.¹⁸ The top ten offense types covered by the reports were:

1. Burglary of Vehicle (23)
2. Theft (17)
3. Auto Theft (14)
4. Criminal Mischief (10)
5. Forgery and Passing (7)
6. Shoplifting (5)
7. Burglary of Residence (5)

Exhibit 16: 3-1-1 Calls by Origination Point from Sept. 01 to Sept. 02

3-1-1 Origination Point	# of Calls	% of Total
3-1-1	293,122	38.3
APD Main 5000	185,255	24.2
Teleserve	159,364	20.8
CLEC 3-1-1	86,179	11.3
Zone Wrecker	28,969	3.8
Impounds	11,891	1.6
Total	764,780	

Impact on Patrol Officers, Problem-Solving and Community Policing Activities

As discussed in the introduction, APD has a sworn force of more than 1,270 officers. Since 1998, APD has implemented Neighborhood-Based Policing, a philosophy that incorporates tenets of community policing. Problem solving is an element described in the literature as a fundamental component of community policing. The Community Policing Consortium (1994) suggests that problem solving is based on the assumption that “crime and disorder can be reduced in small geographic areas by carefully studying the characteristics of problems in the area, and then applying the appropriate resources...”²⁰ APD’s Chief has articulated two primary responsibilities for his patrol officers: respond to calls for service and engage in problem-solving activities.

To assess the impact of 3-1-1 on APD patrol officers, we surveyed patrol officers and their supervisors. We asked about their views of calls for service, knowledge of the 3-1-1 system, and principal tenets of community policing, such as community interaction and engagement, problem solving, and organizational development. Respondents were surveyed about their perceptions of police work in general, of the Austin Police Department, and of the community that APD serves; they were also asked questions about public safety, their fears with respect to crime, and their own problem-solving efforts. One year later, in Fall 2002, we repeated the survey, altering five questions and adding four new questions about the 3-1-1 system. We also added

Exhibit 17: Teleserve Calls By Census Tract - Top Census Tract Locations of Sample Teleserve Calls

Tract Number	# of Teleserve Reports
18	20
17	17
23	7
15	6
19	6

five new questions about the perceived impact of September 11, 2001, on officer workload.

In 2001, from October through December, 232 surveys were completed during “show-ups” (roll calls). The second wave of surveys was completed during 3 days in October 2002. Staff from 21st Century Solutions, Inc. administered 194 surveys; an additional 86 surveys were administered by supervisors during show-ups.²¹ These were mailed back within two weeks.²² In total, 281 surveys were collected during the second wave. During each wave, we surveyed respondents working all shifts that were scheduled on one particular day, at each substation, by attending every show-up on that day. This did not allow us to survey every officer, because not every shift works on all days. However, we did reach a representative sample of the patrol officers. The respondent samples are similar with respect to the number of officers reached and the distribution across areas (exhibit 18).²³ This summary compares the surveys and points out similarities and differences between the respondents in each of the two waves.

Police Work, General. First, we asked respondents for their general views of police work in order to establish a context for interpreting their responses about problem solving, community interaction and engagement, and organizational adaptation or change. These questions focused on understanding what patrol officers and supervisors viewed as police roles and responsibilities. Responses from both surveys are remarkably similar in this category. The vast majority of respondents (95 percent in both surveys) believed that listening to and assisting citizens was just as important as enforcing the law. The number of respondents who strongly agreed with this statement decreased by 14 percent between 2001 and 2002, from 69 percent to 55 percent. Further, the number of respondents who agreed that police officers have reason to be distrustful of most citizens increased by 5 percent, from 24 percent to 29 percent.

We were somewhat surprised by the positive finding that the number of respondents who believed that too few patrol officers were available to answer calls for service dropped by 11 percent, from 91 percent

Exhibit 18: Officer Survey Response by Command Area

Area	Pre Survey	% of Respondents	Post Survey	% of Respondents	Difference in the # of Respondents	Difference in % of Respondents
Northwest	25	11	45	16	20	5
Northeast	30	13	39	14	9	1
Central West	31	13	31	11	-	-2
Central East	52	22	34	12	-18	-10
Downtown	38	16	36	13	-2	-4
Southwest	36	16	49	17	13	2
Southeast	15	6	42	15	27	8
Other	2	2	5	2	-	0
TOTAL	232		281			

in 2001 to 80 percent in 2002, in spite of increasing demands on public safety staff nationwide by Fall of 2002.

Responding to Calls. Responses from the two survey waves were very similar. Officers reported that they are the primary responders to an average of 3.6 Priority One calls per shift. In addition, they said that they responded as the primary unit to about 12 calls per shift. In total, in the first wave of surveys, officers said they responded to about 27 calls per shift (including back-up units); in the second, they reported responding to about 25 calls per shift. In the first survey, officers indicated that the top three *emergency* calls were for family violence (35), collisions (30), and disturbances (26). In the second survey, officers reported responding to collisions (45), family disturbances (35), and family violence (25). Sixty-one percent reported that it took less than an hour to clear calls, with 18 percent of these calls taking less than 10 minutes each to clear in 2001. These responses dropped to 56.4 percent and 15 percent, respectively, in the 2002 survey.

Officers indicated that the top three *non-emergency* calls were for noise (26), animal control (18), and 9-1-1 hang-up calls (17). Noise (40), 9-1-1 hang-up calls (31), and false alarms (35) topped the 2002 response list. (Animal control calls did not appear on the non-emergency response list.) Eighty-one percent of these calls took 30 minutes or less to resolve in the 2001 survey. In the 2002 survey this response changed; only 69 percent of these calls took 30 minutes or less to resolve.

Officers estimated that at the busiest times during their shifts, an average of seven calls were holding in 2001. Even though dispatchable calls increased in 2002, officers estimated an average of six calls holding at the busiest times.

Officers reported that 44 percent of the calls they responded to as a back-up unit were emergency calls, down slightly from 46 percent in the first survey. Officers reported that 47 percent of the calls, 7 percent fewer than in 2001, were not emergency calls. Officers were attending to these calls for fewer than 30 minutes for 67 percent of the calls in 2001, and for 57 percent in 2002. These perceptions about call loads suggest that officers might have perceived that 3-1-1 was removing a fraction of non-emergency calls from their workload.

Knowledge and Views of 3-1-1. In the first survey, nearly all officer respondents said they were aware of APD’s 3-1-1 system as a universal non-emergency telephone number. In the second survey, 90 percent reported that they were generally-to-very aware of the goals and functions of 3-1-1. Eighty-five percent of the officers had discussed 3-1-1 with citizens in their areas; 77 percent had discussed this during contacts made on non-emergency calls, 11 percent during problem-solving projects, and 10 percent during traffic incidents or stops.

When asked about the impact of 3-1-1 on their day-to-day work, 56 percent of the 2002 respondents reported that 3-1-1 had reduced the number of non-emergency calls for which an officer was dispatched.

However, respondents reported that this outcome was less positive than they had anticipated prior to implementation of 3-1-1. During the first survey, more than half believed 3-1-1 would reduce their workload; in 2002, only 43 percent reported that it had, in fact, reduced their day-to-day workload. Before implementation, only 2 percent had believed that 3-1-1 would increase their workload; after the fact, 3.2 percent reported that it had done so.

Fifty-seven percent of the 2001 respondents had not anticipated any impacts from 3-1-1 on their interactions with citizens, and 42 percent of 2002 respondents reported that it did not impact those interactions. Twelve percent had anticipated that 3-1-1 would increase their citizen interactions, and 9 percent reported this to be the case. A third of 2002 respondents reported that they did not know whether 3-1-1 had changed their interactions with citizens.

Forty-one percent of 2001 respondents did not anticipate any impact on their problem-solving efforts; 33 percent of 2002 respondents reported that 3-1-1 had not affected those efforts. A disappointing finding: 30 percent anticipated 3-1-1 would improve their problem-solving efforts, but only 18 percent reported that it had done so. Approximately one-fifth of respondents were unsure whether 3-1-1 would have any impact on their problem-solving efforts; after a year of operation, one-third were unsure whether it had had any impact.

Problem Solving. Over half of the respondents in each survey reported regularly working on problem-solving efforts during their shifts. The responses for all problem-solving questions were remarkably similar. In each survey:

- Forty-one percent of respondents reported spending between 30 minutes and 2 hours on problem-solving efforts during their most recent shifts.
- Approximately 20 percent of officers and supervisors felt that APD had done a good job of giving officers enough time for problem solving. Fifteen percent reported that they were unable to spend any time problem solving.

- Approximately one-third of officers and supervisors felt that APD has done a good or excellent job in providing information that officers need about the problem in their assigned areas. Up from 39 percent in 2001, 42 percent felt that APD had done a fair job of providing the information, according to the 2002 survey.

When asked to identify problems that officers targeted with problem-solving efforts, one quarter of respondents reported working on drug problems. Up from one-quarter in 2001, 30 percent reported in 2002 working on problems related to burglary and breaking and entering. The number working on solving traffic problems increased from 16 percent to 21 percent.

Approximately 30 percent of respondents reported that they targeted their problem-solving efforts to a geographical area covering two to four blocks. Seventy-one percent of officers and supervisors felt APD had done a fair-to-excellent job of distributing the workload fairly among patrol officers responsible for taking calls and specialized problem-solving units such as District Representatives and Street Response Units.

With respect to recognition, 13 percent of respondents on the 2002 survey - 5 percent more than on the 2001 survey - felt that APD had done a good job of rewarding officers who do well with problem solving. However, 47 percent still felt APD had done a poor job in this respect.

Organizational Adaptation. To perform the functions of community interaction and problem solving, officers are required to change their thinking about their work and their environment. Instead of working in a reactive atmosphere, officers and partners are asked to shift their emphasis to a proactive, preventive mode. Also, rather than focusing on major crimes, they are asked to deal with disorders, disputes, and other quality of life problems. Organizational adaptation or change within a department is necessary in order to implement community policing. We asked all respondents about their perceptions of management support for community policing with respect to the amount of time provided, information exchanged,

and recognition given. Finally, we asked officers and supervisors about their perceptions of department management.

Remaining focused on the potential impacts of 3-1-1, we asked questions about what organizational changes had improved over time for community policing. We also inquired about respondents' current views of the Emergency Communications operations.

Handling Calls. In both surveys, the majority of respondents stated that organizational changes had led to police officers responding to more appropriate and more important calls for service. Two-thirds of respondents felt that the Emergency Communications Division effectively handles calls. Over two-thirds also stated that establishing differential police response has led to police officers responding to more appropriate and more important calls for service.

Specialized Units. Civilian crime scene specialists and Teleserve were perceived to have made the largest contributions to improving call loads. In the 2001 survey, 90 percent of respondents felt these units were improving call loads for patrol officers. In the 2002 survey, 83 percent felt that the civilian crime scene specialists were improving call loads for patrol officers; 80 percent felt that the 3-1-1 call takers were having this effect; and two-thirds felt that District Representatives were reducing calls for service to patrol officers.

Views of Department Management. The majority of respondents did not feel that management priorities were made clear or that executives understood officers' day-to-day jobs; this perception changed only slightly between the two survey periods. Almost half (49 percent) of 2001 respondents felt that top leaders had made department priorities clear; only 45 percent of 2002 respondents felt priorities were being clearly communicated. As in other work places, rank and file officers perceived that leaders did not understand their day-to-day work; these perceptions increased slightly between 2001 (65 percent) and 2002 (69 percent).

Impacts of Terrorism. After 9/11, the role of public safety agencies was perceived by the public to have changed significantly. During the 2001 surveys, officers had just been subjected to an influx of domestic security training courses and were responding to a new type of 9-1-1 emergency call—anthrax and weapons of mass destruction calls. In our study, we anticipated that this shift in the police role would have an impact on perceptions of 3-1-1 and of police officer workloads. In the 2002 surveys conducted one year after the tragedies of 9/11, we asked five questions about the impacts of terrorism on the officers' workloads.

Eight-five percent of respondents felt that officer responsibilities increased as a result of the terrorist activities on 9/11. Sixty-six percent felt that APD officers had received adequate training, and 75 percent felt that they had received adequate equipment and supplies to address terrorism concerns.

Eight-three percent felt that calls for service increased as a result of heightened public safety and security concerns. Only 37 percent of respondents felt that citizens were willing to call 3-1-1 regarding terrorism security concerns. However, 56.4 percent felt APD had done an excellent or good job of responding to crisis and emergency situations such as terrorist threats, flooding, and/or racial conflicts during the past year.

Officer Deployment Changes. Patrol allocation is an important issue for APD. Officers are assigned to Command Areas based on the number of calls for service. In exhibit 8, we highlight that APD had created two new policing areas, for a total of eight policing areas. APD created these new areas because call loads in the Downtown area had expanded, justifying the subdivision in order to improve call response times and to ensure equitable distribution of calls among the call areas.

We had thought that if 9-1-1 calls were reduced, officer deployment could change dramatically. In areas where non-emergency calls were high, more time and more officers should be available for other activities, or officers could be shifted to other areas. In our pre- and post-implementation surveys, we

asked officers about the impacts of organizational adaptations such as officer deployment changes. We note, however, the impacts of 9/11 on the police department may have absorbed any officer time that was freed by the reduction in 9-1-1 calls.

Role of District Representatives

Each command area has five to seven officers serving as District Representatives (DRs) – liaisons between patrol officers and neighborhoods who engage in problem solving. DRs are involved in a number of activities that have solved numerous problems. When the program first began, some confusion existed over the roles and responsibilities of the DRs, but with time and training, that has changed. We anticipated that 3-1-1 would increase the DRs' communication with residents, businesses, and other officers. As the liaison between the community and the Department, DRs resolve numerous quality of life issues likely to be reported through 3-1-1.

We attempted to survey the DRs within the Command Areas at the same time that we surveyed patrol officers. Because DRs work on flexible schedules, we relied on an electronic dissemination method for the first round of surveys, using an e-mail link to an online survey, and we distributed an interoffice mail survey in 2002. We received 17 surveys during the 2001 period and 26 during the 2002 period. Given these low response rates combined with the small sample size, we have chosen not to generalize from their responses. We note that of those who responded, all were aware of 3-1-1 and had discussed it with citizens in their areas. In the pre-survey, slightly over half felt that 3-1-1 would increase their interactions with citizens; in the post survey, slightly less than half felt that it had done so. One-third anticipated that 3-1-1 would improve their problem-solving efforts, but less than a quarter felt it had accomplished this.

In the second survey of call takers (described above), call takers reported that they referred approximately five calls to DRs per shift. If this is the case and referrals continue at this rate, it could amount to 500-1,000 calls referred per week, or 35,000 calls referred per year. More data and analysis on the nature of the calls referred to DRs could be useful in helping them

with their problem-solving efforts. We also note that DRs were relieved of answering calls to allow them time to focus on problems. If the 3-1-1 call loads continue to grow, it is important that the referrals are framed within the larger context of the DR's priorities and are used to support problem solving within the area. As the key liaison between the Police Department and active community organizations, DRs play a critical role in facilitating neighborhood policing. With systematic information, DRs should be able to use 3-1-1 information to enhance Austin's active citizens as an extra set of "eyes and ears" for the Police Department.

Police Perceptions of Citizen Satisfaction

Neighborhood-based policing encourages officers to develop mutual respect, trust, and support with community members (interaction), and then to use this foundation to build a series of active partnerships (engagement).²⁴ In our surveys of call takers and police, we asked about their perceptions of citizen involvement with the police department.

In each survey, officers rated citizen cooperation with police as high; however, approximately half of the respondents believed that some citizens are afraid to cooperate with police because others might retaliate. Approximately 80 percent of respondents believed that citizens would call the police if they saw something suspicious. The number of respondents who thought that citizens with information about a crime would reveal it if asked by the police increased a small amount - from 71 percent in 2001 to 75.7 percent in 2002. Sixty-five percent of respondents in each survey reported believing that citizens would be willing to work with police to solve neighborhood problems. Although the percentages were slightly lower, call takers held the same perceptions about citizen cooperation as patrol officers.

With respect to 3-1-1, in the 2002 wave of surveys, we asked patrol officers four questions about the impact of 3-1-1 on the community of Austin. The majority of respondents (60 percent) believed that most citizens were aware of 3-1-1. Fifty-three percent felt that citizens understood the difference between 3-1-1 and 9-1-1; however, 73 percent felt that most citizens were continuing to call 9-1-1 for police-

related non-emergencies, even after being informed about 3-1-1. This result seems to contradict an earlier finding that 3-1-1 had reduced the number of non-emergency calls dispatched.

Call takers were not as sure as patrol officers about citizen awareness and use of 3-1-1. In the 2001 survey, 49 percent of call takers responded that some or most citizens were aware of 3-1-1; this percentage had only risen to 54 percent a year later. In the first survey, 38 percent felt that citizens knew the differences between 9-1-1 and 3-1-1; a year later, only another 4 percent agreed with this statement. Fewer than 20 percent of the call takers believed that citizens understood that 3-1-1 was to be used for police non-emergencies only. On a positive note, in 2001 before the launch of the new system, 70 percent of call takers anticipated that citizens would continue to call 9-1-1 for police-related non-emergencies even when informed of 3-1-1; a year later, this response rate dropped by 7 percent (63 percent). Forty-nine percent felt that some or most citizens would use 3-1-1 effectively for their issues.

Perceptions of Citizens

We turn now to the perceptions of citizens, themselves. Austin citizens are active on behalf of the community and have many opportunities to give feedback to city officials through the use of city-wide surveys. The FY 2004 APD budget presentation reported that the majority of citizens are satisfied with APD. According to these documents, 85 percent were satisfied with Emergency Police Response, 69 percent were satisfied with neighborhood policing, and 94 percent were satisfied with 9-1-1 Emergency Services.

Approximately one year after the 3-1-1 non-emergency call system was implemented in Austin, we conducted a brief telephone survey with 105 residents who had placed calls to 3-1-1 on one of two dates, September 30, 2002, or October 1, 2002. With this survey, we gathered information about changes in customer satisfaction with Austin police services, in general, and with the 3-1-1 system, in particular.

We started by asking APD to use their Avaya Call Management software to generate a list of telephone

numbers captured during our target periods. The list gave us 1,087 candidates. To gain a representative sample, we attempted to reach approximately 30 callers from each of three shifts – morning (6 a.m. to 2 p.m.), afternoon (2 p.m. to 9 p.m.), and night (9 p.m. to 6 a.m.), for a total of 105 respondents. We placed our calls between 10:00 a.m. and 8:30 p.m. Central Standard Time.

From our survey, we learned that three-quarters of the respondents felt that 3-1-1 had improved the quality of service received from APD. Fifteen percent felt that 3-1-1 had made no impact on service, and 6.6 percent felt it had lowered the quality of APD's service.

During the survey, we asked respondents how many times they called before reaching a 3-1-1 call taker. Ninety-six percent (101 respondents) were able to speak with a 3-1-1 call taker on the first attempt. For 59 respondents, this was their first call to 3-1-1. The 46 respondents who had to call more than once to reach a call taker had made an average of five calls, excluding three respondents who stated that they had called 3-1-1 more than 100 times, or "two to three times per day, five days per week." Almost half of the respondents (49) reported communicating more frequently with APD than they would have without the 3-1-1 service.

Most respondents could remember the nature of their most recent call to 3-1-1. Forty had called to report a problem or incident: 26 were filing a police report, 18 were victims of a crime, and one was involved in a motor vehicle accident. Fourteen respondents were calling to obtain information about a particular issue. Twenty-two callers reported thefts, 12 reported noise disturbances, and 12 reported traffic issues, including four hit-and-run accidents. Others called about medical, mental health, or animal problems, concerns about airplanes, child custody issues, and conflicts with neighbors. Five respondents called to request telephone numbers for police officers and other agencies. More than three-quarters of the respondents (78 percent) felt that 3-1-1 call takers were helpful and knowledgeable. Sixty-nine percent stated that 3-1-1 call takers had been excellent or good at solving their problems. More than half (56 percent) stated that 3-1-1 call takers were excellent

or good at providing referral information. Half of the respondents had heard about 3-1-1 from media reports. Nineteen respondents had learned about 3-1-1 from a friend or by word of mouth, and an additional 10 reported having learned about it from police department employees. Fourteen heard about 3-1-1 during a call to 9-1-1. Eight reported seeing a 3-1-1 advertisement, most of these reporting that they saw the number printed on police cars. Five individuals learned about 3-1-1 at a community meeting, including two at commander forums. One reported learning about 3-1-1 as the result of living in another community with 3-1-1 service.

Thirty-seven respondents felt that most or some citizens were aware of 3-1-1. On the other hand, 39 respondents felt that few or no citizens were aware of 3-1-1. The majority of respondents (61) shared suggestions for improving the 3-1-1 service:

- Improve publicity (19).
- Improve the response of call takers, including follow-up, answering more quickly, adding more Spanish-speaking call takers, and allowing call takers to provide more information, including internet-based information (16).
- Improve training for 3-1-1 call takers (9).
- Improve police response and response times (7).
- Add cell phone access (3).

Citizen Interactions with Police as a Result of 3-1-1. Forty-five of the 105 respondents reported that an officer was dispatched in response to their 3-1-1 calls. Twenty-seven of these respondents reported that the officer arrived in 15 minutes or less; eleven reported that the officer arrived within 30 minutes; three stated that the officer arrived within an hour. Seventy-one percent of the 45 respondents felt that the officer was courteous; 88 percent stated that, in their opinions, the officer addressed their problems appropriately.

End Notes

¹ We also pulled results from the 3-1-1 call switch tracking data, which proved consistent with data used by the APD Emergency Communications Division in presentations and briefings.

² APD Emergency Communications Division did not have call data available for FY00-01. The annual data provided was compiled as part of the research completed by the division while exploring the 3-1-1 option. It did not appear to be part of the normal reporting process.

³ FY 2003 data is an estimate.

⁴ Lorraine Mazerolle, Dennis Rogan, James Frank, Christine Famega, and John E. Eck, "Managing Citizen Calls to the Police: The Impact of Baltimore's 3-1-1 Call System," *Criminology & Public Policy*, Vol. 2, No. 1, Nov. 2002, at page 107.

⁵ In order to compare these data, one would need to understand all of the types of calls that are included in the CAD system, and that are not "reactive," such as traffic stops. One must also understand how CAD data are extracted from the mainframe system. This level of specialized knowledge is outside the scope of the evaluation.

⁶ Referring to earlier comments about differences in the data and our understanding of the CAD data set, we note that it is unlikely that all of these calls were actually dispatched.

⁷ The study of Baltimore 3-1-1 highlights that Baltimore had a reduction in the total number of calls received following the introduction of 3-1-1. However, the report states that "3-1-1 call operators were more willing than were their 9-1-1 call taker counterparts to treat non-police calls coming into the 3-1-1 call system as "type 79" calls and not record them into the CAD system." (Mazerolle et al., p. 108)

Thus, it is unclear whether the calls for service to Baltimore were truly reduced or more likely just not recorded. APD statistics do not rely on call taker discretion. APD call takers can choose not to record the call in the CAD system but APD purchased and relies on the call tracking system to account for all 3-1-1 calls received by the switch.

⁸ Source: APD FY 2003-04 Budget Presentation Materials

⁹ Jenkins, Brian Michael, "All Citizen Must Be First Responders," *USA Today*, March 24, 2003.

¹⁰ McMahon, Patrick, "311 Lightens Load for Swamped 911 Centers: Non-emergency Number Catches on After Sept. 11," *USA Today*, March 5, 2002.

¹¹ *USA Today*, "Millions Dialing Wireless 911," *USA Today*, March 7, 2003.

¹² Public Safety Answering Points (PSAPs) report that they receive 30 to 50 percent of emergency calls from wireless phones."

Source: Kathleen Q. Abernathy and Jonathan S. Adelstein, Commissioners, Federal Communications Commission, Joint Written Statement, Hearing on Wireless E911 before the Subcommittee on Communications, Committee on Commerce, Science and Transportation, United States Senate, March 5, 2003.

¹³ Taylor, Alex, "Austin Trails Other Cities in Police Response," *American-Statesmen*, February 26, 2002.

¹⁴ APD FY 2003-04 Budget Presentation materials.

¹⁵ For non-emergency calls, State of Texas privacy laws prohibit forwarding Automatic Locator Information (ALI) to 3-1-1 call takers.

¹⁶ Source: APD Special Order @ 2002 (Effective 03/01/2002).

¹⁷ We do note that of the few dispatchers who indicated their perceptions of the number of calls by priority, these perceptions did not change significantly between the two surveys. They estimated that approximately 9 to 12 calls were holding during the busiest times; officers perceived that approximately five calls were holding.

¹⁸ This represents about 2 percent of the 4,496 reports filed by 3-1-1

call takers for May, 2002.

¹⁹ District Representatives are sworn Austin police officers whose primary job responsibilities are to serve as liaisons between patrol officers and neighborhood members. District Representatives engage in extensive problem-solving activities and are relieved of handling calls for service.

²⁰ Community Policing Consortium, *Understanding Community Policing: A Framework for Action*, Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice, 1994.

²¹ On one day, shift show-up was missed in the North Substation.

²² The majority of the mailed surveys were completed by officers in the Downtown and Central West Areas.

²³ Examining the demographic characteristics of the two survey respondent pools, we note only two differences. First, the number of Black/African American respondents dropped from 12 percent (27 respondents) of the pool in the first wave to 6.4 percent (18 respondents) of the pool in the second wave. Second, the number of officers who had worked for APD for fewer than 2 years rose from 29 percent (68 respondents) to 39 percent (110 respondents).

²⁴ Trojanowicz, Robert, *Community Policing: A Survey of Police Departments in the United States*, U.S. Department of Justice, Federal Bureau of Investigation, 1994.