Application of EMS Customer Satisfaction Survey Data to Improve Service Delivery at Rialto Fire Department

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Certification Statement

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

Signed: _______________________________________
Abstract

Rialto was not utilizing the EMS customer satisfaction survey data it gathered. The purpose of the research was to identify methods of applying customer satisfaction data to improve EMS service. The research questions were: (1) What methods are private organizations using? (2) What methods are public agencies using? (3) What methods are public and private EMS providers using? (4) What methods should Rialto Fire Department consider using? This descriptive research used two feedback instruments, a literature review and personal communications. Results indicated: (1) Applications for planning, follow-up, listening, measurement, and system improvement, (2) Businesses utilized more applications, (3) Rialto respondents supported most uses. Recommended Rialto should use data for listening, employee recognition, customer feedback, training, and measurement.
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Introduction

Many organizations gather customer satisfaction survey data (Evans, 2003). Generally, public and private Emergency Medical Service (EMS) providers gather customer satisfaction survey data (Evans). The problem was that Rialto Fire Department did not utilize the EMS customer satisfaction survey data it collected to improve EMS service. Consequently, Rialto Fire Department was missing opportunities to enhance EMS services to the citizens of Rialto.

The purpose of this research project was to identify methods of applying customer satisfaction survey data to service improvement. A descriptive research method was utilized that included a review of customer satisfaction literature, two feedback instruments, and eight personal communications with several public and private agency representatives. This research project included answering the following questions.

1. What methods are nationally recognized private organizations using to apply customer satisfaction survey data to improve service to their customers?

2. What methods are public agencies using to apply customer satisfaction survey data to improve service to their customers?

3. What methods are public and private EMS providers in Southern California using to apply customer satisfaction survey data to improve EMS service to their customers?

4. What methods should Rialto Fire Department consider using to apply customer satisfaction survey data to improve EMS customer service to its customers?

Background and Significance

Rialto is located between the Interstate 15 and Interstate 10 freeways in southern California, 60 miles east of Los Angeles, between the cities of Fontana, Colton and San Bernardino. Rialto has a population of 105,000 citizens and has a combination of light, medium
and heavy industrial development. It has a large fire works factory complex, large rail classification yard, large petroleum storage tank farm, high-pressure petroleum pipelines, and numerous large distribution warehouses. Rialto Fire Department (RFD) is a full service fire department that provides emergency medical paramedic ambulance service, fire suppression, fire prevention, technical rescue and hazardous materials response. RFD has eighty-two members including the fire chief, deputy fire chief, three shift battalion chiefs, training battalion chief, EMS coordinator, fire marshal, fire inspector, executive secretary, two accounting assistants, fifteen station captains, fifteen engineers, twenty-nine firefighter-paramedics and eleven firefighters.

Rialto was incorporated in 1911 with a population of 1,150 (RFD Annual Report, 1999). Fire protection in Rialto preceded incorporation. Several catastrophic fires in the late 1800’s led to the organization of the first Rialto volunteer fire association in 1905. By 1953 the city had grown to 3000 residents, and hired its first professional firefighter, Chief Lorne Eastwood (RFD Annual Report). Chief Eastwood witnessed tremendous growth and change as the city grew to 32,500 residents. In 1971, Eastwood initiated the establishment of the regions’ first paramedic program (RFD Annual Report).

Rialto continued to grow and add services when Roger K. Purdie became Chief in 1977. Under his leadership, the fire department added a third fire station at the Rialto airport and made plans for a permanently staffed ladder truck. (RFD Annual Report, 1999). Charles Skaggs became Fire Chief in April 1988. During his leadership, the RFD experienced another growth period, growing from 50,000 to 85,000 residents. He added a hazardous materials program, a fourth fire station and relocation of fire station three (RFD Annual Report).
In May 1999, David Lugo was appointed Fire Chief. Two months after he was hired, Rialto revealed that it was experiencing severe budget crises. The city had a $32,000,000 structural deficit in the general fund. The city was six weeks away from having to declare bankruptcy. RFD was forced to make severe cuts including the loss of four staff positions; an accounting assistant, a division chief, disaster coordinator and an assistant fire marshal. In addition, the city closed fire station 204, un-staffed the ladder truck, and discontinued overtime. Vacancies caused by various reasons were not backfilled. RFD routinely ran short. RFD was hoping that there would be an outpouring of community support to oppose the cuts. Unfortunately, community support never materialized. With 71 members at the time, from 1999 to 2002, the fire department lost 45 highly qualified members including captains, engineers, firefighter-paramedics and chief officers, who obtained fire department jobs elsewhere. Rialto’s financial problems occurred while Southern California was experiencing incredible growth. Many fire departments were offering more money, lateral positions, stability and growth. This situation was compounded because Rialto was also experiencing phenomenal growth and increasing service demands while having to scale back services.

In response to this financial crisis, RFD decided to make efforts to become more visible in the community. It created a public information (PIO) program, customer satisfaction program, fire chaplain program, shift fire investigator program and a succession program. City staff began working on preparations for a special election ballot initiative, an 8% utility user tax to support the general fund. After four years of hard work, in which RFD assumed the lead role in winning public support for the ballot initiative, it was passed in June, 2003 by five votes! The election results were challenged in a re-count and certified. This initiative generated $11,000,000
annually into the general fund and had a profound positive financial effect on RFD. It has a sunset clause of June 2008, when it is to be presented to the voters for approval again.

RFD began a customer satisfaction program in June 2000 as one component of its plan to gain more community support. The program did not develop a mission statement and lacked specific direction. RFD began a customer satisfaction survey data-gathering program. A survey instrument was developed utilizing feedback questions drawn from several fire department survey cards. The customer satisfaction data gathered was utilized to produce occasional reports, usually upon demand of the city council or city administration. The information was not shared with Rialto personnel. This approach to customer satisfaction has continued to the present time. This application of customer satisfaction survey data does little to win supporters or actually improve service delivery.

The negative consequences associated with poor customer satisfaction could have a very direct connection to the utility user’s tax, city revenue, and the survival of RFD in the future. With such a close margin of passing the tax initiative, RFD can not afford to have its members delivering anything but the best customer service. Chris Hendricks (2003) mentions the value of providing good customer service as a necessity for agency survival. Today’s EMS market is highly competitive. RFD is the only public ambulance transporter in the region. American Medical Response (AMR) provides ambulance service to Colton, San Bernardino, Fontana, San Bernardino County and other service areas surrounding Rialto.

The intent of RFD was to utilize programs such as the customer satisfaction program to garner community support. The customer satisfaction program was created during one of the worst financial crises RFD had faced since its inception in 1905. This research project is important because winning customer support to renew the utility user tax in June 2008 election is
a matter of organizational survival. My research will discover private and public methods of applying the customer satisfaction survey data that RFD gathers to improve service delivery.

This research project was related to the Executive Development course at the National Fire Academy in November 2004. The Executive Development Student Manual, Unit 10 (2004) focuses on service quality and customer service. Class discussion about Total Quality Management (TQM) and its relationship with customer satisfaction research and the TQM concept of constantly improving, is directly related to the research topic. In addition, this research was directly tied in with the United States Fire Administration (USFA) operational objectives because of its link to community support for the local fire department. Without community financial support, RFD could not adequately protect lives, save property, or properly manage a comprehensive multi-hazard risk reduction plan.

Heifetz & Linsky, (2002) most likely would view designing and implementing a customer satisfaction program during a fiscal crisis as an adaptive challenge. According to Heifetz and Linsky, a technical problem is one in which organizations have the expertise and systems to handle the problem. In contrast, adaptive problems do not lend themselves to expertise or standard operating procedures. Rather, adaptive challenges require changing attitudes, values, and behaviors (Heifetz and Linsky). In Rialto’s situation, the actual design and implementation of the customer satisfaction program was a technical solution. The adaptive challenge was how RFD was going to win citizen support through the implementation of a customer satisfaction program. RFD applied a technical solution to an adaptive challenge (Heifetz & Linsky).

This research project is important because finding methods to apply the customer satisfaction survey data to improve EMS customer service delivery is essential for organizational
survival. It can help add objectiveness to proposed customer satisfaction program changes.

Also, this research is important to me because I have a personal stake in improving Rialto’s EMS service delivery by using the data we collect to facilitate change. I plan on discovering methods of applying customer satisfaction data to improve service through a descriptive research process. I will examine the literature, interview experts, solicit feedback from private and public EMS providers and solicit feedback from RFD members. Changes to RFD’s customer satisfaction program will be made as a result of this research project.

Literature Review

Nationally Recognized Private Organization Use and Application of Data

    Businesses with a strong customer service emphasis frequently gather customer satisfaction survey data and utilize research findings to improve service delivery. The Baldrige National Quality Program stresses the importance of customer driven excellence in organizations (Baldrige, 2002). Reducing defects, (Baldrige) errors, complaints, and root causes of customer dissatisfaction are critical to customer service delivery and discoverable through customer satisfaction research. Baldrige assesses how organizations ensure that data measurements capture actionable information that can predict customer loyalty.

    Baldrige (2002) assesses how organizations follow-up customer feedback, and encourages management by factual data that measures performance, products, service, and customer satisfaction. Reliable data should be used to analyze trends, cause and effect relationships, decision-making, and to promote organizational learning (Baldrige).

    The Malcolm Baldrige National Quality Award examines how organizations address customer expectations and opportunities (Baldrige, 2002). Baldrige also evaluates how companies listen, learn and adjust their service based on the creation and use of relevant
customer data. Baldrige evaluates how an organization processes and applies data on customer perceptions, satisfaction, dissatisfaction, perceived quality, and customer retention. Baldrige evaluates how organizations utilize customer research data to analyze the correlation between service performance and key customer indicators. Baldrige recommends such analysis should be used to define quality, customer requirements, service differentiators in the market place, cause and effect relationships between service and customer satisfaction, customer loyalty, and positive referrals.

The importance of using customer feedback to listen to, and resolve negative feedback is well established in customer service literature. For example, a customer service survey of US consumers in banking, cable, retail and telecommunications industries found that over 75% of consumers will tell friends and family about negative experiences (The Customer Communicator [TCC] 2004). In addition, 85% of dissatisfied customers will switch providers because of negative customer service experiences (TCC). This finding is similar to Whiteley (1991), who stated survey research indicates that 60% to 90% of unhappy but non-complaining customers would switch companies. In contrast, companies which listen and resolve customer complaints, receive 82% repeat business from such customers (Whiteley). He believes the application of customer satisfaction survey data to listen and resolve problems is important to most organizations.

It is also important to utilize survey data to discover how customers hold businesses accountable (The Customer Communicator, 2004). For some customers, quality counts. However, for others, it is on time delivery, while other customers expect immediate customer support. Knowing how an organizations’ customers hold them accountable helps the organization to focus on vital accountability issues to keep them happy.
Jim Temme (1994) also stresses the importance of listening to customers. Temme recommends taking at least one customer suggestion at a time and devise a way to implement it. Temme states the necessity to measure customer service progress. Failure to do so results in guesswork. Temme suggests gathering and analyzing data against benchmarks in the number of customers served, complaint calls, response time to customer requests, and customer satisfaction survey ratings. He stresses the importance of using data to be responsive, communicate care, listen, follow-up and follow through.

Roy Lantz (1995) mentions the importance of surveying customers. Data gathered in customer satisfaction surveys is useful to gage customer perceptions about service and industry specific areas of concern (Lantz). He feels that the goal of customer satisfaction is not just to satisfy but delight customers. Effective customer feedback must be formulated into a customer service action plan that addresses employee behaviors, attitudes, communication techniques, and product and service knowledge (Lantz). Likewise, Whiteley (1991) recommends the use of customer surveys to collect customer information, determine where services or company output needs improvement, identify customer expectations and perceptions, and quantify conformance to customer expectations. He recommends the use of open ended questions to discover high quality data about customer feelings and the use of closed ended questions to provide quantifiable data about groups of customers. Quantifiable data, according to Whiteley, is better suited to identify trends in customer service delivery.

Zemke and Woods (1999) encourage business organizations to compare their customer satisfaction findings with information gathered by the International Customer Service Association (ICSA). Key benchmarks (Zemke and Woods) in areas such as training, service levels, ordering, technical support, collections, customer service, and quality are compared
against benchmarks identified in ICSA tables. Zemke and Woods point out that customer satisfaction data, feedback, complaints and suggestions must be systematically integrated into management systems. Action (Zemke & Woods) is required; otherwise the data collection is useless.

Wal-Mart had global revenues in 2005 exceeding $285 billion. They earned $10 billion and added $29 billion in sales. (Wal-Mart Annual Report, 2005) One reason for Wal-Mart’s continued success is its’ Supply Chain Management (Chen et. al. 2004). This is a high tech warehousing supply system. One major facet of the Supply Chain Model is the Wal-Mart extensive customer component that includes customer satisfaction surveys. The system is linked to suppliers, customers, retailers, distribution centers and manufacturers (Chen et. al.) and adjusts product mix tuned to the needs of local customers.

J.D. Power and Associates routinely awards companies for achieving the highest customer satisfaction in its respective industry (Buss, 2004). The award is highly coveted by retailers. Power relies on crunching satisfaction survey data representing the opinions of customers. The company’s survey data has been applied to produce lighter, user friendly chainsaws, improve rust inhibition and increase braking power to Toyotas, improve product quality, and improve product dependability (Buss). FedEx Corporation swept the J.D. Power customer satisfaction awards in its’ industry in 2002. Steve Pacheco, of FedEx states about JD Power and Associates: “They’ve cracked the code on getting honest evaluations out of consumers, and their own marketing has helped them achieve status within the business community” (Buss p. 1). Not all industries (Buss) like to hear bad news from customer surveys but those who listen, such as Buick, improve initial quality rankings and sales.
In 2002, Suzuki told American dealers that they need to do a better job following up with customers after the sale and fix problems right the first time (Sawyers, 2002). These changes were in response to a J.D. Power and Associates sale satisfaction survey. This indicates that retailers pay attention to customer satisfaction survey data and apply the data to improve the areas where they are receiving low marks.

Public Agency Use and Application of Customer Satisfaction Survey Data

The Federal Emergency Management Agency (Federal Emergency Management Agency [FEMA], 1998), in agreement with private agency customer satisfaction literature, stresses the importance of listening to customer needs and adjusting service delivery to meet customer expectations. FEMA recognizes that conducting customer service surveys is one of the best methods of gathering useful data. One application FEMA mentions is to use survey data to re-tool organizations. FEMA cautions that fire departments may not have adequate resources to gather and analyze reliable customer survey research data. FEMA suggests the use of colleges, universities, and companies that specialize in this area as an alternative. FEMA feels that application of unreliable data is counterproductive.

The International City Management Association (International City Management Association [ICMA], 2002) recommends the use of customer surveys, evaluation cards and benchmarking as best practices in industry to track current performance, identify customer service opportunities and learn the root causes of service delivery problems. Likewise, ICMA is in agreement with the FEMA (1998) survey data use concept of re-tooling. FEMA supports the notion that organizations need to continually improve because customer needs are not static. Smart organizations must constantly improve by adjusting their delivery of service and
procedures (ICMA). FEMA and ICMA both agree that one method to accomplish this is through the application of customer survey data.

Gaebler and Osborne (1993) recommend the use of customer service survey research data to direct customer feedback to employees, identify follow-up interview opportunities, adjust service to meet customer expectations, address accountability, track responses to complaints, test marketing ideas, identify training needs, and identify customer expectations. In addition, Gaebler and Osborne encourage organizations listen to customers and engineer their service to meet customer expectations, based on actionable customer satisfaction data. This is similar to the FEMA (1998) concept of re-tooling.

In order to enhance the usefulness of customer service data, the International City Management Association (2002) recommends the use of the Pareto chart, which displays data in a series of bars. The Pareto chart is related to the Pareto Principle, which postulates that a relatively small number of causes account for most of the problems. Pareto charts can be utilized in customer service survey data analysis to identify significant factors that are the root causes of problems (ICMA).

ICMA (2002) wisely cautions public safety organizations about taking citizen-satisfaction survey results too seriously. ICMA says that citizen satisfaction surveys tend to reveal little because most citizens love their fire fighters. ICMA warns that ratings below the top should be considered as dire warnings in light of the public’s general good will towards their respective fire departments. ICMA feels, as does FEMA (1998), that application of overly positive customer satisfaction survey data can be problematic if the data is not reliable or truthful.
ICMA (2002) suggests that data on service quality and outcome progress should be utilized in the performance appraisal process, especially for supervisors and managers. It is important to note that this point is in direct contrast with some EFO of the research examined later, and most of the fire service related literature reviewed.

ICMA (2002) recognizes that emergency organizations can develop a corporate culture that views themselves as experts and therefore pay lip service to customer feedback. Quality customer service must actually be flexible enough to redesign service delivery to meet community needs and expectations identified from customer feedback (ICMA). This concept is in agreement with the Brunacini (1998) customer service point of not disqualifying the customer with expert qualifications. Brunacini has created an organizational culture that is customer centered, and continually focused on improving customer service performance based on customer feedback.

Holzer, (2001) feels that public organizations must identify key items of information about their agencies through utilization of the citizen satisfaction survey to ensure success. Holzer suggests that satisfaction surveys are necessary to measure performance, enhance decision-making based on actual data and not hunches, improve service delivery, improve civic discourse regarding service delivery, increase public participation in government, and link individual and organizational objectives for employee performance appraisals. Holzer feels that if managers are held responsible for their subordinates’ customer service attitudes, they will supervise them.

Holzer (2001) indicated that one of the best worldwide public systems in citizen satisfaction evaluation is the Seoul Metropolitan Government. They (Holzer) utilized experts in public administration, industrial psychology, political science and various fields to design their citizen
satisfaction surveys. Results (Holzer) are distributed to department heads, the mayor, citizen boards, and the local news media. Holzer does mention that one flaw in their system was that it was developed without the input of average citizens, which he advocates.

Holzer (2001) recommends utilizing an initial citizen satisfaction survey to identify baseline perceptions, identify socially relevant performance measures, and report on data summaries monthly or quarterly. Also, Holzer recommends use of such survey data to identify training needs, modify performance measures based on input, link performance measures to budget decisions, operational decisions, strategic planning and management systems, and requests for performance measurement to both internal and external stakeholders.

Holzer (2001) cautions that citizens are less interested in identifying performance measures and more concerned with quality of life issues regarding citizen satisfaction surveys. To be more effective, survey instrument designers must involve citizens in the early stages of planning a citizen satisfaction survey program (Holzer). He suggests this will result in better quality of the data received. This point seems similar to Drumm’s point, discussed later, that what customers view as important may differ from what professionals feel is important.

Private and Public EMS Providers Utilization of Customer Satisfaction Survey Data

Brunacini (1998) recommends the use of an action management model in response to customer feedback. This model is applicable to the use of customer service survey research data. Briefly stated, (Brunacini) the model, based on customer feedback, takes a good idea received from someone’s input (complaint or suggestion) and translates the input into service delivery on the street. Brunacini’s model develops a standard operating procedure (SOP), provides training on the SOP, practices application in the field, critiques the application, and revises the SOP.
based on feedback. It is a circular model based on the TQM concept of continual improvement (Brunacini). This concept is also mentioned in the Baldrige National Quality Program (2002).

Brunacini (1998) also stresses the importance that learning organizations take customer feedback a step further and not look at just objectives but opportunities to embrace change. He suggests that sound utilization of financial resources must change the “O” in Management by Objectives to Management by Opportunities (Brunacini p. 105). This concept is applicable to the use of customer satisfaction research data to identify opportunities. Likewise, A.J. Heightman (2004) cites an organizational culture in United Airlines to be alert for customer opportunities as a way to provide classy customer service.

Barishansky & Jaskoll (2004) emphasize the importance of follow-up in the use of customer service feedback. This is especially important, they argue, when customer feedback ratings are low. Follow-up (Barishansky) should include a phone interview or personal visit from a supervisor. They recommend continuous improvement based on an organizational commitment that customers come first. Barishansky & Jaskoll suggest the use of pre and post-response data to improve service quality.

In another article, Barishansky & Jaskoll (2003) stress the importance of passing along good information and structuring customer service administrative and operational policies on customer needs. They warn against just utilizing customer service facts and figures to change customer service attitudes. They feel it is critical to understand that employees’ willingness to change the customer service corporate culture of an organization comes from a consistent managerial commitment to customer service. Barishansky & Jaskoll feel that consistent managerial commitment, communication of vision and emotional appeals are more effective than just presenting customer satisfaction data or shot in the arm, feel good smile training.
Chris Hendricks (2003) indicated that the biggest difference in customer service delivery is frequently not technical skill levels, but rather consideration, professionalism and respect. Hendricks points out that people often make the biggest difference. These attitude traits fit better into the adaptive change model mentioned by Heifetz and Linsky (2002) than a technical change model when considering how to change the customer service climate of an organization. The author noticed disagreement between most fire service specific literature reviewed, and public or business literature. Many fire service authors recommend against use of customer satisfaction data for performance appraisal and discipline to change customer service attitudes and behaviors. One fire service exception to this was Jim Page (2003) who criticized the fire service’s reluctance to embrace EMS as part of their customer service responsibility. Page compares fire service tolerance of this prevalent attitude as akin to tolerance of racist and sexist jokes, which were commonplace in fire stations 30 years ago, but are no longer acceptable. This relates to customer satisfaction survey data because perceptions about employee attitudes, at least in Rialto, are sometimes commented on in customer satisfaction survey data. Many of these comments are positive but some are negative. ICMA (2002) and Holzer (2001) also recommend the use of information on service quality and outcome progress in the performance appraisal process, especially for supervisors and managers.

Drumm (2000) found from citizen survey research that many EMS customers have different customer service expectations than EMS providers. EMS customer’s rank legal EMS knowledge, ongoing internal evaluation, cost effectiveness, public education and customer service lower in importance than EMS providers (Drumm). He advocates utilization of survey data to educate customers about how the EMS system works. Drumm points out that many fire agencies assume that their customers care that their paramedics are also firefighters, have low
What Drumm found is that customers care more about quick response by a well-trained medic who provides excellent care, regardless of whether they are public or private providers. Drumm feels that customer surveys are excellent tools to identify customer priorities from their EMS perspective and then utilizing the information for public education about the EMS system.

Bruce Evans (2003) suggests that EMS managers have a responsibility to provide internal customer support. One aspect he offers is to provide feedback on performance. Evans indicates that many fire department customer service programs have borrowed from private ambulance companies and Fortune 500 companies. Evans points out that some progressive fire departments operate web sites with links to customer feedback survey forms. Further, Evans feels that customer service survey data provides an excellent source of information to modify procedures and policies. In addition, Evans recommends the use of telephone surveys to non-transports to assess their outcomes.

EFO author Charles F. Owens (2001) recommends the use of customer service survey data to identify training needs, initiate additional services, enhance existing services, discontinue some services, create department polices, standard operating procedures, and rules. In his discussion, Owens astutely points out that there are no accepted universal models utilized to measure patient satisfaction and that it is an unproven but logical assumption that improved customer service will translate into improved customer satisfaction.

EFO author Jerrel W. Holt (2002) found that many trendsetters in the fire service utilize customer service survey data on a regular basis to keep their finger on the pulse of their organizations. Holt recommends that fire departments should utilize customer service survey data to communicate positive comments with department members and elected officials, follow-
up negative responses with a telephone call within one week, define and market the fire department, identify opportunities to improve service, and not be used to catch a member delivering poor service. Note that his last point is in contrast with ICMA (2002), and Holzer (2001) who recommend the use of survey data for accountability purposes. EFO author Wurster, (2001) agrees with Holt on this point, stating use of customer satisfaction data to hold employees accountable will lead to low morale. Instead, Wurster offers the use of customer feedback to recognize employees who have provided exceptional service. Wurster mentions the use of customer satisfaction survey data to listen to customers, identify and reward exceptional service, identify training needs, identify attitude adjustment issues, and turning whiners into winners.

EFO author Chris Krajic (2001) mentions the use of customer feedback to identify customer needs and expectations, identify and address complaints, manage resources, secure funding, increase customer loyalty and implement new programs. Krajic recommends that customer feedback be utilized to modify customer satisfaction SOP’s or develop new ones. Krajic recommends that customer satisfaction survey results be distributed monthly to shift personnel. This will increase awareness of how the public perceives their performance (Krajic). This point is similar to Evans (2003).

The researcher found an intriguing study by Warren D. Jones (1997). Jones looked at whether philosophical and programmatic changes can improve citizen perceptions of satisfaction. Jones found that program changes could have a small positive change in customer satisfaction but statistically, these changes could also occur by chance. Jones' hypothesis was that citizen satisfaction could be improved through philosophical and program changes. Data from post incident surveys were used to test the hypothesis. Jones could not support the
hypothesis. However, Jones found that customer satisfaction surveys could be used to identify problem areas and develop policy with some success. Jones recommends the use of survey research to help determine customer needs, evaluate new and existing services and programs, and discover customer perceptions. In addition, Jones, like FEMA (1998) cautions that few fire departments have the in-house ability to properly design and conduct scientifically correct survey research. He recommends the use of professional services and nearby universities to help design the survey instrument, analyze survey data, and recommend ways to utilize the data gathered (Jones).

Jones (1997) is in agreement with Janing and Sachs (2003) who recommend fire departments spend the time and expense to utilize trained, objective, outside survey experts to design their questionnaire to avoid capturing unreliable survey data. Further, Jones recommends the use of survey data to inform managers, elected officials, decision makers, and employees. He cautions that survey research is not pure science. Jones, in agreement with Shortall (2002), discussed later, mentions a Hawthorne like benefit from gathering customer satisfaction research. He believes that citizens appreciate the attention and that someone is watching, thereby reinforcing behaviors that produce citizen satisfaction (Jones).

Robert E. Marcucci (2002) recommends the utilization of survey data in bi-annual customer service reports to be distributed to city council personnel. Data from surveys, both negative and positive, should be shared with staff, captains, and line personnel (Marcucci). He feels that everyone in the organization will benefit from learning how the public perceives them. Marcucci believes that customer surveys give a clear explanation of how the customer base feels about the fire department. Positive comments and high ratings, he argues, enhance the department’s image while low ratings and negative comments can serve as a warning to make
changes. This is in agreement with Janing and Sachs (2003) who mention that survey data is useful in determining customer expectations regarding various aspects of customer service such as timeliness of response, courtesy, caring, and rating of operational delivery. However, Janing and Sachs caution that surveys must be well written to avoid obtaining unreliable data. This happens (Janing & Sachs) when organizations write questions to obtain data the organization wants, rather than asking questions that provide the organization with data they actually need.

Richard Shortall (2002) agrees with Jones (1997) that customer survey research has a Hawthorne effect and this can be enhanced by follow-up telephone interviews. Shortall mentions that follow-up phone interviews demonstrate to customers that their responses were important. The Hawthorne effect is also mentioned in a customer service study which found that 70% of customer driven decision making is based on the quality of human interactions while only 30% is based on product or service attributes (The Customer Communicator, 2004).

Wurster (2001) found that fire departments and the private sector need to stress the importance of using customer feedback data to reward employees for delivering excellent customer service. Wurster agrees with Baldrige (2002) that service organizations need to develop programs which continually improve service. Wurster recommends that fire departments solicit feedback from their employees regarding the customer satisfaction program to assure program success.

Terry L. Schenk (2001) recommends benchmarking to improve paramedic customer service. He feels the best way to identify benchmarks is to determine what the citizens are demanding. This can be accomplished through survey research or the formation of focus groups (Schenk). Benchmarking (Schenk) is directly related to collecting data and measuring
performance. Schenk believes collection of reliable data and benchmarking, as it relates to
customer service evaluation, is essential for EMS agency survival.

Dothan Alabama Fire Department established a customer feedback system (Rubin, 1999). The fire
chief reviews and initials each survey card. Customer survey responses and written
comments are entered into a database. Dothan Fire Department publishes a quarterly report that
is distributed to staff, rank and file, the local media, and the local governing body. Negative
comments are followed up on. Rubin reports that such contact has a Hawthorne effect that most
customers are surprised that a government agency would take the time to follow-up a complaint.
This agrees with Shortall (2002) and Jones (1997). Survey data (Rubin) is also collected in a
brochure that is handed out after the fire. Dothan also gathers data from sympathy cards are
mailed out to customers. Attempts are made to visit every major incident by a command officer.
Negative responses are not viewed as a failure or problem but as an opportunity for
improvement.

The researcher separated the items identified in the literature review into five general
categories. It was discovered that many business, public sector, and fire service organizations
utilize customer service data for action planning, follow-up with internal and external customers,
complaint reduction, measurement, and listening. This information assisted the researcher in
discovering methods of applying customer satisfaction survey data to improve service delivery.
The literature review also assisted with the development of the feedback instruments and
interview questions.

Procedures

The author utilized a descriptive research methodology for this project. The Executive
Development Student Manual explains descriptive research as the gathering of data to answer
questions regarding the current status of the subject of the research (FEMA, 2004). The author, who oversees the customer satisfaction program, examined and described the existing customer satisfaction program. A summary of the customer satisfaction program is found in the Background and Significance portion.

A literature review was conducted to discover what methods private organizations, public agencies and EMS providers are using to apply customer satisfaction survey data to improve service delivery. The researcher conducted three separate literature searches at the Learning Resource Center of the National Fire Academy in April 2004. In addition, the Rialto Fire Department library, personal library, and Internet were searched for additional literature. Five additional books were purchased to assist in the literature review. The literature review helped clarify questions to be asked in three different feedback instruments including personal interview questions, a feedback instrument sent to private and public EMS providers, and a feedback instrument sent to Rialto Fire Department personnel.

The personal interview questions were evaluated for clarity and reliability by Mike Watson, a fellow EFO student at Rialto Fire Department and BC Mike Peel, who has considerable interviewing experience designing and conducting interviews of various types. BC Watson suggested changes in the introduction. Questions three and four were re-worded based on their input.

The researcher interviewed seven experts who were all identified by references as being knowledgeable in customer satisfaction research. The interview questions were utilized to keep the interviews on track. The interviews were scheduled and conducted either by telephone or in person. The interviews were initiated with a standard introduction (See Appendix E for the
The researcher interviewed Debbie Lynch, Guest Relations Manager for Target Corporation; Paul Layne, Rialto Wal-Mart Manager; Elizabeth Johnston, oversees Kaiser-Fontana Hospitals’ Quality Division; Rene Johnson, oversees San Bernardino Toyota’s Customer Feedback Division; Dr. Wayne McAfee, Rialto Human Resources Director, oversees customer feedback; Rhonda Strout, Riverside Human Resources Director, knowledgeable about Riverside customer feedback; and Dr. Dennis Onieal, knowledgeable about the NFA’s customer satisfaction feedback process.

The Private-Public EMS feedback instrument purpose was to discover methods they are using to apply customer satisfaction survey data to improve service delivery in EMS (See Appendices A and B). The Rialto Fire Department feedback instrument purpose was to discover what methods RFD should use to apply customer satisfaction survey data to improve EMS service delivery (See Appendices C & D).

After the feedback instrument questions were written, they were pilot tested for clarity, relevancy, readability, and ability for the reader to understand the directions. The average length of time required to complete the feedback instruments was ten to fifteen minutes in the pilot test. Four battalion chiefs and an administrative secretary were asked to participate in the pilot test. There was a hundred percent return rate. Input from the pilot test resulted in two questions being deleted and re-wording of questions 5, 13, 16, 20, 21, 25, 32, 38, and 41. In addition, the pilot test feedback resulted in the titles being changed. Finally, the question answering systems were re-formatted to make the instruments conducive to email response. Cover memos explaining the research were provided (See Appendices C, D, and F). Appendix F was included for the mailed out versions. Anonymity was assured for the respondents of both groups in the instructions.

Rialto Fire Department Feedback Instrument
The RFD feedback instrument was emailed to all eighty-one members of Rialto Fire Department. Fifty were returned completed and three were incomplete and not included. There was a 62% return rate on the completed instruments. They were completed in between March 2, 2006 and April 1, 2006.

Public and Private EMS Provider Feedback Instrument:

The Public-Private EMS feedback instrument was emailed and sent via US mail to public and private EMS providers in Southern California on December 29, 2005 with a return date of January 29, 2006. The researcher utilized the California Fire Service Directory (2004) to identify potential respondents. Southern California private EMS is essentially American Medical Response (AMR). Consequently, the researcher received a feedback instrument back from AMR Rancho division, which services a population of over 1,000,000 and also interviewed their Operations Manager, Dave Molloy. Public fire service EMS providers were selected from San Bernardino, Riverside, San Diego, Santa Barbara, San Luis Obispo, Los Angeles, and Orange Counties. Cities contracting with a county fire department were eliminated and the county fire department itself was included. Smaller cities below 20,000 in population were not interviewed to further limit the scope. The following southern California fire departments were sent feedback instruments: Alhambra FD, Alpine FPD, Anaheim FD, Arcadia FD, Banning CDF, Barstow FPD, Beverly Hills FD, Big Bear City, Big Bear Lake FPD, Burbank FD, Cathedral City FD, CDF San Diego, CDF San Luis Obispo Co. FD, Chino FPD, Chula Vista FD, Colton FD, Compton FD, Corona FPD, Coasta Mesa FD, Culver City FD, Del Mar FD, Downey FD, El Cajon FD, El Centro FD, Encinitas FD, Escondido FD, Fullerton FD, Glendale FD, Hemet FD, Huntington Beach FD, Imperial Beach FD, La Mesa FD, La Verne FD, Long Beach FD, Los Angeles City FD, Los Angeles County FD, Murrieta FPD, Monrovia FD, National City FD,

Sixty-five fire departments were sent feedback instruments. Nineteen fire departments and AMR returned completed forms, two were incomplete and 43 were not returned. There was a 31% return rate on the feedback instruments. The following agencies returned completed surveys: American Medical Response Rancho Division, Los Angeles County FD, Los Angeles City FD, Cathedral City FD, Santa Ana FD, Anaheim FD, Upland FD, Glendale FD, San Diego FD, CDF, San Bernardino City FD, San Marcos FD, Chino FD, Colton FD, Loma Linda FD, Ventura FD and four anonymous.

Limitations

Return Rate: Because of the return rate of 31% on the feedback instruments sent to Southern California Public-Private EMS providers, and the 62% return rate on the feedback instruments sent to RFD members, the results represent only the respondents’ answers.

Scope: The research was limited cities in nine Southern California counties with populations exceeding 20,000 residents. Contract cities with county fire departments, private providers, and non advanced life support providers were excluded. AMR contracts the vast majority of Southern California excluding fire service ambulance coverage. This study did not include small independent private EMS providers. In addition, the research was limited to the study of EMS customer satisfaction data for several reasons. Eighty percent of RFD’s emergency
response activity is EMS. In addition, the majority of customer complaints are related to EMS service delivery. Also, at the present time, EMS service delivery is the only area that RFD collects customer satisfaction survey data on.

Generalization: Since the respondents were not selected at random, the results cannot be generalized to the public and private EMS providers.

Research expertise: The researcher is not a professional at conducting research. FEMA (1998), Jones (1997) and Janing & Sachs (2003) recognize that many fire departments do not have adequate resources to gather and analyze survey research data.

Assumptions: The assumption is that the feedback instruments were given to personnel in the organization familiar with their organization’s customer satisfaction program. Several emails received confirmed to the researcher that the respondents understood the directions. Another assumption is that the respondents answered the feedback instruments honestly to the best of their knowledge, including the RFD respondents.

Terms and Definitions

Customer service and customer satisfaction: Customer service and customer satisfaction are often used interchangeably in customer satisfaction literature. Authors frequently interchange marketing, customer satisfaction, and customer service.

Customer Service means: “Meeting the needs of the customer” (Temme, p.7, 1994).

Satisfaction means: “The fulfillment or gratification of a need, desire, or appetite” (Webster, 2005, p. 1005).

Customer: “One who buys goods or services”; or “A person with whom one must deal” (Webster, p.285).

Service: “Any interaction of doing for others for a fee or exchange” (Temme, p. 7).
Utility Users Tax: An 8% General Fund tax on utilities such as natural gas, electricity, telephone, water and cable television collected by utility companies for remittance to Rialto.

Likert Scale: A measurement scale that has a series of statements followed by five response alternatives, typically: Strongly agree, agree, no opinion, disagree, or strongly disagree (Monette, D.R., Sullivan, T.J., & DeJong, C.R., 1990).

Results

Question 1 Results: What methods are nationally recognized private organizations using to apply customer satisfaction survey data to improve service to their customers?

This question was answered by the literature review and four personal interviews. Business organizations utilize customer satisfaction survey data in many ways to improve service delivery to their customers. Baldrige (2002) recommends use of such data to identify and reduce product and service defects, errors, complaints, and to discover root causes to problems. Baldrige also recommends the use data to measure employee and organization performance, examine cause and effect relationships, and provide organizational learning. In addition, data can be used to research customer loyalty, measure satisfaction, and measure quality (Baldrige).

Temme (1994) revealed that business organizations frequently utilize customer satisfaction survey data to listen to customers, compare against identified customer satisfaction benchmarks, follow-up, and communicate care. Likewise TCC (2004) mentions resolution to negative feedback, and listening as uses.

Lantz (1995) recommends the use of customer satisfaction survey data to gage customer perceptions about service delivery and create action plans. Similarly, Whiteley (1991) recommends that businesses utilize survey data to determine customer expectations and provide quantifiable data regarding customer satisfaction, and identify trends.
Wal-Mart (Chen et.al. 2004) uses data to adjust store product mix to local customers.

Zemke and Woods (1991) mention comparison against benchmarks and J.D. Power and Associates (Buss 2004) uses data to rate businesses in industry. The interview questions reflect some of these points (See Appendix E).

Debbie Lynch (personal communication, October 19, 2005) is the Guest Relations Manager for Target Corporation. She oversees Target’s customer satisfaction program. I had a phone interview with her on October 19th 2005 at 9:00 a.m. Debbie revealed that Target utilizes customer satisfaction survey data for two main purposes. One application involves monitoring customer telephone calls. Monitors fill out a survey form about the call. Fifty percent of the calls are complaints. Customer complaints are usually about merchandise, a store situation such as a pharmacy that closed too soon, or other store conditions such as re-arrangements. Each customer phone contact is tracked on a survey form sheet as a complaint, question or suggestion. Reports are generated with monthly feedback based on the data. Typically, Target will list the top ten complaints and share the information with Target employees who can address the issues identified. For example, if Target is getting complaints about a particular product, they will “partner with the provider” to solve the issue generating complaints. Success is measured by a reduction of complaints which are tracked (D. Lynch, personal communication, October 19, 2005).

Lynch (personal communication, October 19, 2005) stated that Target also utilizes consultants to survey customers about their shopping experience at Target stores. These results are analyzed monthly and shared with the various affected stores, divisions and departments at Target. Managers are expected to develop action plans to address issues discovered in the customer research (D. Lynch, personal communication, October 19, 2005).
Within Debbie Lynch’s Guest Relations division, (personal communication, October 19, 2005) she utilizes an internal quality monitoring process to measure employee customer service skills. Phone calls are monitored and a rating sheet is filled out measuring listening, empathy, product knowledge and other related skills. The results of the monitoring are presented to employees and supervisors. Within the last year, Target has started holding supervisors responsible for subordinate customer service ratings. Supervisors are expected to train and develop customer service skills in their subordinates. Poor ratings will result in accountability for the supervisor including low performance review ratings, disciplinary action or poor recommendations for promotion. Conversely, Lynch pointed out that good ratings are rewarded with corporate recognition such as letters of commendation from the vice president, which looks good for advancement (personal communication, October 19, 2005).

Lynch (personal communication, October 19, 2005) stated that several new areas of customer satisfaction research are reputation management and customer loyalty. Feedback that could affect the Target reputation is dealt with a quick response. Also, creating, maintaining, retaining, and measuring customer loyalty is a new area of concern that Target will be addressing. Target also utilizes customer satisfaction survey data for identification of employee training needs, identification of customer product preferences, and to provide feedback to employees about customer perceptions.

Paul Lane (personal communication, December 20, 2005) is the Manager of the Wal-Mart in Rialto. In an interview with him on December 20, 2005, he revealed that Wal-Mart utilizes a private agency to survey customers. Customers are asked a series of 20 questions in a telephone survey or at a Wal-Mart store. Customers are asked about the store arrangement, product line selection, quality of products, customer service, employee friendliness, employee
helpfulness, product knowledge of the employees and other issues. The data is compiled in a monthly store report. The information is utilized by Wal-Mart to improve the areas which receive low ratings and to reinforce and improve the areas of high ratings. Each complaint is individually investigated. Employees who receive positive comments are rewarded with letters from Corporate Headquarters, which look good for advancement.

I interviewed Elizabeth Johnston (personal communication, January 9, 2006) of Kaiser Hospital, Fontana on January 9, 2006. She is in charge of Kaiser’s Quality program. She is a registered nurse with over 20 years in the profession. Johnston said that Kaiser surveys “everyone”. They utilize survey data to improve customer service behavior and attitudes of employees by:

1. Sharing survey results with supervisors, managers and employee groups.
2. Identifying training issues including job skills and bedside manner problems.
3. Stratifying survey ratings in different specific lines such as patient medicine or patient surgeries.
4. Comparing department ratings with each other and comparison of hospital ratings with other regional facilities (E. Johnston, personal communication, January 9, 2006).

Johnston (personal communication, January 9, 2006) related that Kaiser has created a customer satisfaction corporate culture that takes satisfaction ratings serious. The culture of the organization stresses that everyone is responsible, and everyone is a housekeeper for the organization. Johnston indicated that the organizational environment at Kaiser is blame free. Problems are viewed as opportunities to improve care, identify failures, identify marketing strategies and identify targets for change. Johnston mentioned that Kaiser’s model for customer satisfaction is to:
1. Plan for change.

2. Measure performance (accomplished through survey research).

3. Assess progress against goals.


Kaiser has an entire department that focuses on customer satisfaction survey research and data analysis. Johnston (personal communication, January 9, 2006) mentioned that Kaisers’ attention to customer satisfaction surveys and actual use of the data for improvement and change has resulted in increased customer satisfaction, improved employee morale, increased customer retention and increased corporate profit.

Johnston (personal communication, January 9, 2006) related that Kaiser is meticulous about the quality of their survey data. She said that it is easy for customer satisfaction researchers to become data rich and information poor. To avoid this and improve the validity and reliability of survey data, Kaiser is constantly evaluating the quality of its surveys to assure that their data is revealing useful information. One problem with customer satisfaction survey data she identified is that many survey ratings tend to be middle of the road. Most customers are satisfied but these ratings do not tell Kaiser how to really impress a customer. Consequently, Kaiser pays close attention to customer comments and customer complaints. Customer comments are:

1. Shared with managers.

2. Analyzed to identify and correct perceived customer problems.

3. Analyzed to identify customer preferences.

4. Analyzed to see whether customer suggestions make business sense.

5. Analyzed to identify what it takes to really satisfy a customer (E. Johnston, personal communication, January 9, 2006).
One change (E. Johnston, personal communication, January 9, 2006) Kaiser identified through customer surveys was a high number of comments about patients not getting to see their own physicians. Kaiser researched the problem, identified issues related to physician availability, and made adjustments in physician schedules. The result in follow-up survey research was a reduced number of complaints with a corresponding increase in patient satisfaction which was statistically significant. Johnston (personal communication, January 9, 2006) also reported that Kaiser utilizes customer satisfaction survey data to:

1. Measure general perceived performance of employees.
2. Compare organizational progress against action plan goals.
3. Measure customer perceptions about preventive medicine educational programs.
4. Measure customer perceptions about facilities and post surgery care received.
5. Measure perceived quality and access to after surgery therapy care.

When asked about the use of data in employee appraisals and disciplinary matters, Johnston (personal communication, January 9, 2006) answered yes and no. Kaiser does use data to identify employee training needs, rate job skills, and rate bedside manners. Problems identified are referred for additional customer service training. Good ratings are rewarded and mentioned in employee appraisals. Kaiser strives hard to protect their investment in their employees. Before Kaiser refers an employee to Human Resources for progressive discipline, they examine the work environment, management, facility and culture of a department to eliminate any systematic causes of employee misbehavior. They try to maintain their blame free culture. If Kaiser determines there is a pervasive problem employee who will not respond to their improvement efforts, then it becomes a human resources problem to handle (E. Johnston, personal communication, January 9, 2006).
Johnston (personal communication, January 9, 2006) mentioned that in the past, Kaiser was the only HMO. Their corporate culture was a “take it or leave it” mentality. In other words, when customers had complaints, Kaiser would not respond in a positive manner. However, this changed in the mid 1990’s when Kaiser was no longer the only HMO. As competition increased, marketing became necessary for survival. Johnston stated that Kaiser responded by aggressively surveying and listening to customers, making changes revealed by the feedback, and offering more choices, individual plans, and comparison with the competition.

Another area of customer satisfaction research and data use that Johnston (personal communication, January 9, 2006) mentioned is reputation management. Kaiser has plans to research this topic in the future. They will use the information to continually improve their reputation.

I interviewed Rene Johnson (personal conversation, January 25, 2006) of San Bernardino Toyota on January 25, 2006. Johnson had 23 years in the restaurant business before working for Toyota. She served as a customer service consultant to new restaurants. She indicated that she is generally disappointed with the customer service she observes in many businesses. She stated that Starbucks is an exception. Rene stated that Toyota uses Toyota University as its main customer satisfaction training facility. Personnel are certified as experts or masters in customer service selling, customer service prospecting, customer service phone service, etc. Johnson (personal conversation, January 25, 2006) stated that everything about Toyota centers on customer service. No meeting ends without mentioning its importance.

Johnson (personal conversation, January 25, 2006) stated that Toyota basically measures two major categories; sales and service. These categories are rated on fourteen different customer satisfaction areas. Dealerships, divisions, and individuals all receive ratings. Generally the
ratings are blame free. Ratings are on a Likert scale ranging from excellent to poor. She said that the corporate culture of Toyota expects excellent ratings and anything less might as well be zero.

Toyota (R. Johnson, personal conversation, January 25, 2006) randomly surveys customers 14-21 days after a sale or a service. Dealerships cannot affect who is surveyed. Toyota independently collects and analyzes customer satisfaction survey data. Toyota compiles lengthy customer satisfaction survey reports that are shared weekly, monthly and annually with dealerships, divisions and individual employees. Ratings are categorized into “green light”, signaling success, or “red light,” signaling improvement needed. Those divisions, dealerships, or individuals who receive “red lights” are referred for additional training, generally at Toyota University. Scores are monitored for improvement in performance and ratings. Excellent scores result in financial bonuses for divisions, dealerships and individuals.

The data is also categorized to identify customer satisfaction trends and problems and to calculate a “customer satisfaction index” score. San Bernardino Toyota is ranked seventh in California and has been in business since 1966. Johnson stated that Toyota has experienced much of its success because of their attention to customer satisfaction data which has positively affected sales and competition. She stated that competition is fierce even between Toyota dealerships and customer satisfaction creates the competitive edge (R. Johnson, personal conversation, January 25, 2006).

Question 2 Results: What methods are public agencies using to apply customer satisfaction survey data to improve service to their customers?

FEMA (1998) emphasizes listening to customers and re-tooling as potential uses of survey data. ICMA (2002) warns against taking public safety satisfaction survey data too
Application of EMS Customer


I interviewed Dr. Wayne McAfee (W. McAfee, personal communication, September 26, 2005) on September 26, 2005. He has a PHD in organizational psychology. He is the Human Resources Director for Rialto, part owner in a retail bicycle shop, and owns a private consulting firm. Dr. McAfee oversees customer feedback in Rialto. His department utilizes a mystery shopper with a customer satisfaction survey form. The mystery shoppers are different individuals, ages, ethnicities, and gender. They shop with city employees on customer service issues and gather data regarding their encounters. Dr. McAfee says that the data has been utilized to address the following issues:

1. It was discovered that seasoned employees tend to be more helpful because they are experienced and knowledgeable. Based on this finding, McAfee has recommended that department heads not place their new employees in gatekeeper positions until they are trained. McAfee sees the practice of placing new employees as gatekeepers as detrimental to customer service.

2. McAfee is designing a new training program to address customer service for new employees that focuses on teaching them how to deal with the most frequent customer questions or issues.
3. McAfee found that city departments that are complex like police and finance, with enforcement missions, generate more customer dissatisfaction.

4. The mystery shoppers also identified facility issues that were routed to different departments to be addressed including: Poor signage, lack of comfortable seating, safety hazards, and counter employees with poor telephone skills (W. McAfee, personal communication, September 26, 2005).

McAfee (personal communication, September 26, 2005) plans on utilizing the data gathered to address what he calls “DEA”. The letter “D” means debriefing fifty gatekeepers or what he calls first responders, front desk employees. This process involves listening to employees to discover their frustrations and conflict in dealing with angry, unhappy customers, politics, supervisors, and learning their positions. The letter “E” means education and will result in customer service training, strategic planning, and development of city wide service standards. The letter “A” means action planning that will take the data gathered and design an action plan to generate a customer service cultural shift in Rialto.

Rhonda Strout (personal communication, January 12, 2006) is the Human Resources Director for Riverside, California. I interviewed her on January 12, 2006. She was recommended to me for an interview because of her involvement in a customer satisfaction committee in Riverside. Strout stated that Riverside has utilized internal department customer satisfaction surveys to measure internal customer satisfaction. Scores are shared with departments with suggestions for improving internal customer service.

Strout (personal communication, January 12, 2006) said that city administration occasionally utilizes consulting services to conduct citizen surveys to measure customer satisfaction. She reported that the data has been utilized to measure and report timeliness of city
services, measure against key dates, and identify customer service training needs. She indicated that employees have been re-assigned from a front desk positions as a result of customer satisfaction survey feedback.

Strout (personal communication, January 12, 2006) did not mention use of customer satisfaction data to measure loyalty. She also stated that she was not aware of utilization of data for revising standard operating procedures, policies, rules or procedures. In addition, she stated that Riverside does not have a systematic approach to gathering and analyzing customer satisfaction survey data.

Strout (personal communication, January 12, 2006) stated that Riverside periodically initiates customer satisfaction research at the request of Council, a department head, staff or the City Administrator. Data is generally organized in a matrix and customer satisfaction is reported on a Likert type scale between 1 being low and 6 being high. Strout said that the Human Resources Department is interested in conducting a management audit to survey internal and external customers in the future. They will utilize the data to gather a snapshot of customer satisfaction (R. Strout, personal communication, January 12, 2006).

I interviewed Dr. Dennis Onieal (personal conversation, January 31, 2006) on January 31 2006. He was selected by reference of Charlie Dickinson in the United States Fire Administration (USFA). He stated that Onieal was very knowledgeable about the National Fire Academy’s (NFA) use of customer satisfaction survey data. Onieal stated that the NFA solicits customer satisfaction feedback from various methodologies including informal class visits, classroom evaluation forms, and utilization of a private firm to gather data. Immediate data is gathered regarding classes. Feedback is acted on immediately by Dr. Onieal. For example, if a room is not clean or equipment is broken, Dr. Onieal will immediately contact a responsible
manager and inform them about the issue. Onieal mentioned that the NFA takes all customer feedback serious and will act on it. Action may include:

1. Explanation to a customer: Onieal mentioned that some student complaints about employees just require an explanation that the employees are required to perform a certain task, for example security.

2. Rude or condescending behavior: Onieal mentioned that he will generally ignore one complaint but if it shows up on several surveys, he will act on it.

3. Onieal mentioned that he takes immediate action on issues regarding inappropriate language or sexual harassment whether it’s revealed on a survey form, class visits, or complaint (personal conversation, January 31, 2006).

Onieal (personal conversation, January 31, 2006) stated that the NFA has a customer friendly atmosphere. He also stated that because the NFA serves the nation, it has to maintain a broad perspective on cross cultural issues as they relate to customer satisfaction.

Onieal (personal conversation, January 31, 2006) stated that the NFA utilizes end of course evaluations to improve courses, tune up instructors, and answer student criticism. In discussing creation of student loyalty, he connected loyalty to the NFA’s response to customer feedback. He stated that the NFA’s purpose in gathering feedback is to improve the quality of the educational process. This, in turn, creates customer loyalty as students see the improvement and feel that the NFA listens.

Another use of data Onieal (personal conversation, January 31, 2006) mentioned is identification of trends. Onieal said that he does not act in a knee jerk fashion upon receiving customer feedback but looks for trends revealed in the data. However, he will use feedback to communicate and explain NFA practices to promote understanding.
Onieal (personal conversation, January 31, 2006) stated that the NFA utilizes a private contractor to solicit long term customer satisfaction data. Students and supervisors are randomly selected for survey three to six months after attending class. They are asked the same type of questions and the results are compared. The NFA is interested in evaluating the effectiveness of their courses in improving job performance. Responses are anonymous.

Question 3 Results: What methods are public and private EMS providers in southern California using to apply customer satisfaction survey data to improve EMS service to their customers?

This question was answered by the literature findings, a personal conversation with an operations manager at AMR, Rancho division, and a feedback instrument.

The literature revealed that public and private EMS providers utilize customer satisfaction survey data in numerous ways to improve service delivery. Brunacini (1998) recommends an action model, which gathers data for continual improvement. He also recommends using survey data to identify customer service opportunities and SOP development. Barishansky & Jaskoll, (2004) recommend the use of customer satisfaction survey data for customer follow-up, assess service quality, and pre and post response comparisons. Drumm (2002) adds that survey data can be useful in discovering customer misconceptions about EMS and then designing educational programs to address the misconceptions. He advocates the identification of EMS priorities from the customer perspective.

Evans (2003) mentions the use of web site based customer satisfaction survey forms. He advocates use of data for employee feedback, policy modification and assessment of non transport outcomes. Owens (2001) recommends the use of survey data to identify training needs, additional service needs, improve service delivery and create policies or SOP’s. Holt (2002) recommends the use of customer satisfaction survey data to identify employee attitude issues,
generate reports to the public and politicians, keep a finger on the pulse of the organization, follow-up, marketing, identifying opportunities and employee recognition. Holt cautions against use of data to catch employee wrongdoing.


I had a personal telephone conversation with Dave Molloy, (personal communication, September 27, 2005) Operations Manager for American Medical Response Rancho California. AMR utilizes a customer feedback instrument similar to the one used by Rialto Fire Department. AMR applies the data gathered to address what AMR calls its’ “Vision to Reality” program. They enter customer satisfaction data about individual employees onto a spreadsheet which depicts customer rating trends. Employees are shown the patient ratings, trends, and patient feedback depicted in a visual display on a regular basis. Glaringly poor ratings are utilized as coaching points. The data is also utilized in employee annual reviews. Training needs are identified and overall employee attitudes are measured. Employees can be placed on an action plan and compelled to hand out feedback cards on all calls. Customer comments are monitored and AMR is very hands on in putting customer suggestions into practice. For example, AMR
was receiving complaints about missing personal belongings. AMR began providing patients with a “Patient Belonging Bag” which virtually eliminated the complaints. This innovation came from a patient comment (personal communication, September 27, 2005). One finding in this study was surprising regarding AMR. Their feedback instrument is included in the Public-Private EMS group findings. However, separated out, AMR offered the highest scores of any individual respondent strongly agreeing (SA) with most of the feedback questions.

Public-Private EMS Provider Feedback Instrument Results:

The feedback instrument examined five categories: Action plans, program-system improvement, listening to customers, measurement of customer service delivery components, and customer - EMS employee follow-up. To facilitate understanding of the results, the category is explained and the results are reported for each question in the category by the number and percentage compared to the total responses. The answers to the questions were divided into four choices; Strongly Agree = SA, Agree = A, Disagree = D, and Strongly Disagree = SD. Answer percentages of SA and A were added together to report agency “use” of the data for that purpose.

Sixty-five fire departments and AMR were sent feedback instruments. Nineteen fire departments and AMR returned completed forms. There were two incomplete forms and forty-three were not returned. There was a 31% return rate. For more details, see the Procedures section and Appendices A, B and F.

Category; Action Plans, (Utilization of customer satisfaction survey research data to develop action plans, which address customer service issues in your EMS organization).

Feedback question; My organization utilizes EMS customer satisfaction survey research data to develop action plans which:
1. Concentrate on improving employee EMS customer service behavior?
   \[ SA = 6 \text{ or } 30\%, \ A = 5 \text{ or } 25\%, \ D = 4 \text{ or } 20\%, \ SD = 5 \text{ or } 25\%; \ Use = 55\%. \]

2. Concentrate on improving the EMS customer service delivery attitudes of our employees?
   \[ SA = 6 \text{ or } 30\%, \ A = 5 \text{ or } 25\%, \ D = 5 \text{ or } 25\%, \ SD = 4 \text{ or } 20\%; \ Use = 55\%. \]

3. Addresses improving employee skills in operating EMS equipment in order to improve customer service?
   \[ SA = 4 \text{ or } 20\%, \ A = 5 \text{ or } 25\%, \ D = 6 \text{ or } 30\%, \ SD = 5 \text{ or } 25\%; \ Use = 45\% \]

4. Concentrate on improving the EMS professional knowledge base of our employees in order to improve customer service?
   \[ SA = 6 \text{ or } 30\%, \ A = 4 \text{ or } 20\%, \ D = 6 \text{ or } 30\%, \ SD = 4 \text{ or } 20\%; \ Use = 50\%. \]

5. Addresses justification of EMS budget requests to fund its programs?
   \[ SA = 3 \text{ or } 15\%, \ A = 4 \text{ or } 20\%, \ D = 7 \text{ or } 35\%, \ SD = 6 \text{ or } 30\%; \ Use = 35\%. \]

6. Designs a positive, EMS customer centered company attitude? (Company attitude is sometimes referred to as climate, or corporate culture.)
   \[ SD = 5 \text{ or } 25\%, \ A = 6 \text{ or } 30\%, \ D = 5 \text{ or } 25\%, \ SD = 4 \text{ or } 20\%; \ Use = 55\%. \]

7. Generates or creates EMS customer loyalty?
   \[ SA = 2 \text{ or } 10\%, \ A = 4 \text{ or } 20\%, \ D = 10 \text{ or } 50\%, \ SD = 4 \text{ or } 20\%; \ Use = 30\%. \]

   Category; Program-System Improvement, (Utilization of customer satisfaction survey research data to improve customer service programs or systems).

Feedback question; My organization utilizes EMS customer satisfaction survey research data to create customer service delivery:

8. Standard Operating Procedures?
   \[ SA = 4 \text{ or } 25\%, \ A = 6 \text{ or } 30\%, \ D = 6 \text{ or } 30\%, \ SD = 4 \text{ or } 25\%; \ Use = 50\%. \]
9. Organizational policies?

   SA = 4 or 20%, A = 6 or 30%, D = 6 or 30% SD = 4 or 25%; Use = 50%.

10. Organizational Procedures?

    SA = 3 or 15%, A = 5 or 25%, D = 8 or 40%, SD = 4 or 20%; Use = 40%.

11. Organizational Rules?

    SA =1 or 5 %, A = 8 or 40 %, D = 7 or 35%, SD = 4 or 20%; Use = 45%.

12. EMS customer service training programs?

    SA = 3 or 15%, A = 6 or 30%, D = 8 or 40%, SD = 3 or 15%; Use = 45%.

13. Identify new EMS programs needed?

    SA = 3 or 15%, A = 8 or 40%, D = 5 or 25%, SD = 4 or 20%; Use = 55%.

    Category; Listening to Customers, (Utilization of customer satisfaction survey research data to listen to customer input in order to improve customer service delivery or follow-up).

    Feedback question; My organization utilizes EMS customer satisfaction survey research data (customer feedback) to:

14. Identify EMS customer’s perceived needs?

    SA = 6 or 30 %, A = 5 or 25%, D = 4 or 20%, SD 5 or 25%; Use = 55%.

15. Determine EMS customer perceptions about the customer service they received from my organization and, or its’ employees?

    SA = 6 or 30 %, A = 5 or 25%, D = 4 or 20%, SD = 5 0r 20%; Use = 55%.

16. Discover or identify EMS customer service delivery opportunities to provide additional services to customers?

    SA = 4 or 20%, A = 6 or 30%, D = 5 or 25%, SD = 5 or 25%; Use = 50 %.
17. Discover or identify methods of how to enhance existing EMS customer service?
   SA = 4 or 20%, A = 6 or 30%, D = 5 or 25%, SD = 5 or 25%; Use = 50%.

18. Identify and discontinue the delivery of EMS customer service components that are no longer pertinent or needed?
   SA = 0, A = 9 or 45%, D = 5 or 25%, SD = 6 or 30%; Use = 45%.

19. Enhance organizational learning about EMS customer service delivery?
   SA = 3 or 15 %, A = 7 or 35%, D = 5 or 25%, SD = 5 or 25%; Use = 50%.

20. Help define my organization’s EMS customer market more precisely?
   SA = 3 or 15 %. A = 8 or 40%, D = 4 or 20%, SD = 5 or 25%; Use = 55 %.

21. Identify hot button issues in which EMS customers hold our organization responsible. For example, issues which are most likely to generate a complaint to higher-ups such as: Quality service, on time service, respect, courteous employees, product quality, professionalism, physical appearance of employees, etc?
   SA = 8 or 40%, A = 3 or 15%, D = 4 or 20%, SD = 5 or 25%; Use = 55%.

22. Define EMS customer perceptions about your organization?
   SA = 4 or 20%, A = 7 or 35%, D = 4 or 20%, SD = 5 or 25%; Use = 55%.

23. Define EMS customer loyalty? (community support, repeat customers, etc.)
   SA = 2 or 10%, A = 5 or 25%, D = 7 or 35 %, SD = 6 or 30%; Use = 35%.

24. Define EMS customer expectations of what they consider as quality customer service?
   SA = 3 or 15%, A= 5 or 25%, D= 7 or 35%, SD = 5 or 25%; Use = 40 %.

25. Identify methods to satisfy EMS customers and exceed their expectations?
   SA = 3 or 15%, A = 7 or 35%, D = 5 or 25%, SD = 5 or 25%; Use = 50%.
26. Identify equipment or EMS customer service delivery defects?

   SA = 2 or 10%, A = 6 or 30%, D = 7 or 35%, SD = 5 or 25%; Use = 40%.

27. Identify trends in EMS customer service delivery and, or warning signals of problems, which are developing or on going?

   SA = 1 or 5%, A = 9 or 45%, D = 5 or 25%, SD = 5 or 25%; Use = 50%.

28. Discover root causes to EMS customer service delivery problems?

   SA = 0 or, A = 10 or 50%, D = 6 or 30%, SD = 4 or 20%; Use = 50%.

Category; Measurement, (Utilization of customer satisfaction survey research data to measure customer perceptions about customer service delivery (Measurement of customer service delivery components).

Feedback question; My organization utilizes EMS customer satisfaction survey research data (customer feedback) to measure:

29. EMS customer perceptions about service quality?

   SA = 5 or 25%, A = 6 or 30 %, D = 4 or 20%, SD = 5 or 25%; Use = 55 %.

30. EMS customer satisfaction with service delivery provided?

   SA = 5 or 25%, A = 6 or 30 %, D = 4 or 20%, SD = 5 or 25%; Use = 55%.

31. Eliminate guesswork in identifying EMS customer service delivery problems or issues?

   SA = 5 or 25%, S = 6 or 30%, D = 4 or 20%, SD = 5 or 25%; Use = 55%

32. Performance indicators against EMS customer service benchmarks?

   SA = 1 or 5%, A = 10 or 50 %, D = 4 or 20%, SD = 5 or 25%; Use = 55%.

33. Discover cause and effect relationships between EMS programs and customer service perceptions?

   SA= 1 or 5%, A = 10 or 50%, D = 4 or 20%, SD = 5 or 25%; Use = 55%.
34. To provide reliable, factual EMS customer service delivery data that evaluates customer perceptions about customer service performance?
   \[ SA = 3 \text{ or } 15 \%, A = 6 \text{ or } 30 \%, D = 6 \text{ or } 30 \%, SD = 5 \text{ or } 25 \%; \text{ Use } = 45 \%. \]

35. EMS customer perceptions about product quality?
   \[ SA = 1 \text{ or } 5 \%, A = 7 \text{ or } 35 \%, D = 6 \text{ or } 30 \%, SD = 6 \text{ or } 30 \%; \text{ Use } = 40 \%. \]

Category; Customer-Employee Follow-up, (Utilization of customer satisfaction survey research data to develop follow-up on customer comments, complaints, and suggestions).
Feedback question; My organization utilizes EMS customer satisfaction survey research data (customer feedback) to follow-up on:

36. EMS customer complaints about the customer service they received?
   \[ SA = 5 \text{ or } 25 \%, A = 7 \text{ or } 35 \%, D = 4 \text{ or } 20 \%, D = 4 \text{ or } 20 \%; \text{ Use } = 60 \%. \]

37. To identify and resolve negative EMS customer service feedback?
   \[ SA = 4 \text{ or } 20 \%, A = 8 \text{ or } 40 \%, D = 4 \text{ or } 20 \%, SD = 4 \text{ or } 20 \%; \text{ Use } = 60 \%. \]

38. To communicate to EMS customers that we care about their customer feedback?
   \[ SA = 5 \text{ or } 25 \%, A = 7 \text{ or } 35 \%, D = 4 \text{ or } 20 \%, SD = 4 \text{ or } 20 \%; \text{ Use } = 60 \%. \]

39. To identify and track EMS customer complaints?
   \[ SA = 3 \text{ or } 15 \%, A = 7 \text{ or } 35 \%, D = 5 \text{ or } 25 \%, SD = 5 \text{ or } 25 \%; \text{ Use } = 50 \%. \]

40. To reduce the number of EMS customer complaints?
   \[ SA = 5 \text{ or } 25 \%, A = 5 \text{ or } 25 \%, D = 7 \text{ or } 35 \%, SD = 3 \text{ or } 15 \%; \text{ Use } = 50 \%. \]

41. To help identify and diagnose root causes to EMS customer service delivery problems?
   \[ SA = 6 \text{ or } 30 \%, A = 4 \text{ or } 20 \%, D = 6 \text{ or } 30 \%, SD = 4 \text{ or } 20 \%; \text{ Use } = 50 \%. \]

Feedback question; My organization utilizes EMS customer satisfaction survey research data (customer feedback) to follow-up with our employees including:
42. Utilizing EMS customer feedback in performance appraisals?
   SA = 4 or 20%, A = 3 or 15%, D = 8 or 40%, SD = 5 or 25%; Use = 35%

43. Utilizing EMS customer feedback and-or complaints to correct employee attitudes?
   SA = 4 or 20%, A = 7 or 35%, D = 5 or 25%, SD = 4 or 20%; Use = 55%.

44. Utilizing customer feedback and/or complaints to correct employee behaviors?
   SA = 4 or 20%, A = 7 or 35%, D = 5 or 25%, SD = 4 or 20%; Use = 55%.

45. Provide feedback to employees regarding EMS customer perceptions about their customer service?
   SA = 4 or 20%, A = 7 or 35%, D = 5 or 25%, SD = 4 or 20%; Use = 55%.

46. Identify employees providing excellent EMS customer service and reward or recognize their efforts?
   SA = 6 or 30%, A = 4 or 20%, D = 6 or 30%, SD = 4 or 20%; Use = 50%.

47. Identify training needs related to recurrent EMS problems and-or recurring customer service delivery problems?
   SA = 5 or 25%, A = 6 or 30%, D = 5 or 25%, SD = 4 or 20%; Use = 55%.

One large city stood out as a department that significantly uses and applies customer satisfaction survey data whereas three large departments like reported much less use. Three medium sized cities reported significant use of customer satisfaction data. Two large departments, two medium sized departments, and one small department reported moderate use. Two anonymous respondents reported significant use whereas five of the respondents did not gather data and reported little to no use. The researcher noticed in analyzing the data that the agencies which did not gather data brought the average scores significantly lower than the RFD respondents. Those agencies which gather data had similar ratings.
Oral Comments:

One large county fire department commented that they do no utilize a formalized customer satisfaction survey tool. They rely on their quality improvement program. They indicated they are in the process of developing a customer satisfaction survey tool. One respondent indicated that they follow-up with customer get well cards. One large city with a highly developed data gathering system stressed support for a well designed, scientific customer satisfaction survey data gathering system. Another city stressed the main purpose of their data gathering system was to identify every possible opportunity to improve service. One smaller city which has a highly developed data gathering system indicated that employees should be evaluated by their supervisors against standards and policy; not by customers who do not know what is expected of them.

Of the twenty respondents who returned completed feedback instruments, thirteen requested interest in seeing the final results of this research project. Six respondents did not wish to see the results and one respondent did not indicate a choice.

Question 4 Results: What methods should Rialto Fire Department consider to apply customer satisfaction survey data to improve EMS service to its customers?

This question was answered by a review of literature and a feedback instrument. In the literature reviewed, Brunacini (1998) recommends using survey data to identify customer service opportunities and develop SOPs. Barishansky & Jaskoll, (2004) recommend the use of customer satisfaction survey data for customer follow-up, assess service quality and pre and post response comparisons. Drumm (2002) adds that survey data can be useful in discovering customer misconceptions about EMS and then designing educational programs to address the misconceptions. Evans advocates use of data for employee feedback, policy modification and
assessment of non transport outcomes. Owens (2001) recommends the use of survey data to identify training needs, additional service needs, improve service delivery and create policies or SOP’s. Holt (2002) recommends the use of customer satisfaction survey data to identify employee attitude issues, generate reports to the public and politicians, keep a finger on the pulse of the organization, follow-up, marketing, identifying opportunities and employee recognition. Holt cautions against use of data to catch employee wrongdoing.


Rialto Fire Department Feedback Instrument Results

Eighty-one feedback instruments were sent to Rialto personnel. Fifty were completed, twenty-nine were not returned and two were returned incomplete. There was a sixty-two percent return rate. The questions are stated with the accompanying results. The feedback instrument examined five categories: Action plans, program-system improvement, listening to customers, measurement, and customer-EMS employee follow-up. To facilitate understanding of the results, the category is explained and the results are reported for each question in the category by the
number and percentage compared to the total responses. The answers to the questions were divided into four choices; Strongly Agree = SA, Agree = A, Disagree = D, Strongly Disagree = SD. SA and A answer percentages were added to indicate RFD respondent support. For more details, see the Procedures section and Appendix C.

Category: Action Plans, (Utilization of customer satisfaction survey research data to develop action plans, which address customer service issues at Rialto Fire Department).

Feedback question: Rialto Fire Department should utilize EMS customer satisfaction survey research data to develop action plans which:

1. Concentrate on improving employee EMS customer service behavior?
   SA = 17 or 34%, A = 27 or 54%, D = 8 or 16%, SD = 4 or 8%; Support = 88%.

2. Concentrate on improving the EMS customer service delivery attitudes of our employees?
   SA = 17 or 34%, A = 25 or 50%, D = 6 or 12%, SD = 2 or 4%; Support = 84%.

3. Addresses improving employee skills in operating EMS equipment in order to improve customer service?
   SA = 12 or 24%, A = 24 or 48%, D = 11 or 22%, SD = 3 or 6%; Support = 72%.

4. Concentrate on improving the EMS professional knowledge base of our employees in order to improve customer service?
   SA = 14 or 28%, A = 24 or 48%, D = 7 or 14%, SD = 2 or 4%; Support = 76%.

5. Addresses justification of EMS budget requests to fund its programs?
   SA = 12 or 24%, A = 22 or 44%, D = 12 or 24%, SD = 4 or 8%; Support = 68%.

6. Design a positive, customer centered company attitude? (Company attitude is sometimes referred to as climate, or corporate culture.)
   SA = 16 or 32% A = 31 or 62%, D = 2 or 4%, SD = 1 or 2%; Support = 94%.
7. Generate or creates customer loyalty?

\[ \text{SA} = 15 \text{ or } 30\%, \text{ A} = 28 \text{ or } 56\%, \text{ D} = 6 \text{ or } 12\%, \text{ SD} = 1 \text{ or } 2\%; \text{ Support} = 86\% \].

Category; Program-System Improvement, (Utilization of customer satisfaction survey research data to improve customer service programs or systems).

Feedback question; Rialto Fire Department should utilize EMS customer satisfaction survey research data to create customer service delivery:

8. Standard operating procedures?

\[ \text{SA} = 5 \text{ or } 10\%, \text{ A} = 21 \text{ or } 42\%, \text{ D} = 19 \text{ or } 38 \% \text{ and } \text{SD} = 2 \text{ or } 4\%; \text{ Support} = 52\% \].

9. Organizational Policies

\[ \text{SA} = 6 \text{ or } 12\%, \text{ A} = 16 \text{ or } 32\%, \text{ D} = 20 \text{ or } 40\%, \text{ SD} = 8 \text{ or } 16\%; \text{ Support} = 44\% \].

10. Organizational procedures?

\[ \text{SA} = 3 \text{ or } 6\%, \text{ A} = 18 \text{ or } 36\%, \text{ D} = 23 \text{ or } 46\%, \text{ SD} = 6 \text{ or } 12\%; \text{ Support} = 42\% \].

11. Organizational rules?

\[ \text{SA} = 3 \text{ or } 6\%, \text{ A} = 17 \text{ or } 34\%, \text{ D} = 21 \text{ or } 42\%, \text{ SD} = 9 \text{ or } 18 \%; \text{ Support} = 40\% \].

12. EMS customer service training programs?

\[ \text{SA} = 11 \text{ or } 22\%, \text{ A} = 28 \text{ or } 56\%, \text{ D} = 8 \text{ or } 16\%, \text{ SD} = 3 \text{ or } 6 \%; \text{ Support} = 78\% \].

13. Identify new EMS programs needed?

\[ \text{SA} = 12 \text{ or } 24\%, \text{ A} = 32 \text{ or } 64\%, \text{ D} = 4 \text{ or } 8\%, \text{ SD} = 2 \text{ or } 4\%; \text{ Support} = 88\% \].

Category; Listening to Customers, (Utilization of customer satisfaction survey research data to listen to customer input in order to improve customer service delivery or follow-up).

Feedback question; Rialto Fire Department should utilize EMS customer satisfaction survey research data (customer feedback) to:
14. Identify EMS customer’s perceived needs?
   SA = 14 or 28%, A = 25 or 50%, D = 8 or 16%, SD = 3 or 6%; Support = 78%.

15. Determine EMS customer perceptions about the customer service they received from my organization and, or its’ employees?
   SA = 19 or 38%, A = 24 or 48%, D = 5 or 10%, SD = 2 or 4%; Support = 86%.

16. Discover or identify EMS customer service delivery opportunities to provide additional services to customers?
   SA = 13 or 26%, A = 27 or 54%, D = 10 or 20%, SD = 0; Support = 80%.

17. Discover or identify methods of how to enhance existing EMS customer service?
   SA = 15 or 30%, A = 28 or 56%, D = 6 or 12%, SD = 1 or 2%; Support = 86%.

18. Identify and discontinue the delivery of EMS customer service components that are no longer pertinent or needed?
   SA = 14 or 28%, A = 26 or 52%, D = 10 or 20%, SD = 0; Support = 80%.

19. Enhance organizational learning about EMS customer service delivery?
   SA = 11 or 22%, A = 34 or 68%, D = 5 or 10%, SD = 0; Support = 90%.

20. Help define my organization’s EMS customer market more precisely?
   SA = 8 or 16%, A = 30 or 60%, D = 12 or 24%, SD = 0; Support = 76%.

21. Identify hot button issues in which EMS customers hold our organization responsible. For example, issues which are most likely to generate a complaint to higher-ups such as: Quality service, on time service, respect, courteous, employees, product quality, professionalism, physical appearance of employees, etc?
   SA = 18 or 36%, A = 21 or 42%, D = 9 or 18%, SD = 2 or 4%; Support = 78%.
22. Define EMS customer perceptions about your organization?
   
   SA = 15 or 30%, A = 26 or 52%, D = 8 or 16 %, SD = 1 or 2%; Support = 82%.

23. Define EMS customer loyalty? (Community support, repeat customers, etc.)
   
   SA = 9 or 18%, A = 28 or 56%, D = 12 or 24%, SD = 1 or 2%; Support = 74%.

24. Define EMS customer expectations of what they consider as quality customer service?
   
   SA = 9 or 18%, A = 30 or 60%, D = 10 or 20%, SD = 1 or 2%; Support = 78%.

25. Identify methods to satisfy EMS customers and exceed their expectations?
   
   SA =13 or 26%, A = 28 or 56 %, D = 8 or 16%, SD = 1 or 2%; Support = 82%.

26. Identify equipment or EMS customer service delivery defects?
   
   SA = 5 or 10%, A = 32 or 64%, D = 10 or 20%, SD = 3 or 6%; Support = 74%.

27. Identify trends in EMS customer service delivery and, or warning signals of problems, which are developing or ongoing?
   
   SA = 9 or 18%, A = 34 or 68%, D = 7 or 14%, SD = 0; Support = 86%.

28. Discover root causes to EMS customer service delivery problems?
   
   SA =13 or 26%, A = 31 or 62% D = 6 or 12 %, SD = 6 or 12%; Support = 88%.

Category; Measurement, (Utilization of customer satisfaction survey research data to measure customer perceptions about customer service delivery, or customer service delivery components).

Feedback question; Rialto Fire Department should utilize EMS customer satisfaction survey research data (customer feedback) to measure:

29. EMS customer perceptions about service quality?
   
   SA =17 or 34%, A = 28 or 56 %, D = 5 or 10 %, SD = 0; Support = 90%.

30. EMS customer satisfaction with service delivery provided?
SA = 14 or 28 %, A = 29 or 58%, D = 7 or 14%, SD = 0; Support = 86%.

31. Eliminate guesswork in identifying EMS customer service delivery problems or issues?
   SA =10 or 20%, A = 26 or 52%, D = 11 or 22%, SD = 3 or 6%; Support = 72%.

32. Performance indicators against EMS customer service benchmarks?
   SA = 7 or 14%, A = 33 or 66 %, D = 10 or 20 %, SD = 0; Support = 80%.

33. Discover cause and effect relationships between EMS programs and customer service perceptions?
   SA = 9 or 14%, A = 30 or 60 %, D = 9 or 18 %, SD = 2 or 4%; Support = 74%.

34. To provide reliable, factual EMS customer service delivery data that evaluates customer perceptions about customer service performance?
   SA =10 or 20%, A = 30 or 60%, D = 9 or 18 %, SD = 1 or 2%; Support = 80%.

35. Customer perceptions about product quality?
   SA = 9 or 18 %, A = 32 or 64%, D = 8 or 16%, SD = 1 or 2%; Support = 82%.

   Category; Customer-EMS Employee Follow-up, (Utilization of customer satisfaction survey research data to develop follow-up on customer comments, complaints, and suggestions).

Feedback question; Rialto Fire Department should utilize EMS customer satisfaction survey research data (customer feedback) to follow-up on:

36. EMS customer complaints about the customer service they received?
   SA = 13 or 26%, A = 30 or 60 %, D = 7 or 14%, SD = 0; Support = 86%.

37. To identify and resolve negative EMS customer service feedback?
   SA = 12 or 24%, A = 31 or 62%, D = 7 or 14%, SD = 0; Support = 86%.

38. To communicate to EMS customers that we care about their customer feedback?
   SA = 19 or 38%, A = 26 or 52%, D = 4 or 8 %, SD = 1 or 2%; Support = 90%.
39. To identify and track EMS customer complaints?
   \[SA = 12 \text{ or } 24\%, A = 28 \text{ or } 56\%, D = 9 \text{ or } 18\%, SD = 1 \text{ or } 2\%; \text{ Support } = 80\%.
\]

40. To reduce the number of EMS customer complaints?
   \[SA = 13 \text{ or } 26\%, A = 22 \text{ or } 44\%, D = 11 \text{ or } 22\%, SD = 4 \text{ or } 8\%; \text{ Support } = 70\%.
\]

41. To help identify and diagnose root causes to EMS customer service delivery problems?
   \[SA = 11 \text{ or } 22\%, SA = 29 \text{ or } 58\%, D = 10 \text{ or } 20\% SD = 0; \text{ Support } = 80\%.
\]

Feedback question; Rialto Fire Department should utilize EMS customer satisfaction survey research data (customer feedback) to follow-up with our EMS employees including:

42. Utilizing EMS customer feedback in performance appraisals?
   \[SA = 8 \text{ or } 16\%, A = 14 \text{ or } 28\%, D = 19 \text{ or } 36\%, SD = 9 \text{ or } 18\%; \text{ Support } = 44\%.
\]

43. Utilizing EMS customer feedback and/or complaints to correct employee attitudes?
   \[SA = 6 \text{ or } 12\%, A = 22 \text{ or } 44\%, D = 16 \text{ or } 32\%, SD = 6 \text{ or } 12\%; \text{ Support } = 56\%.
\]

44. Utilizing EMS customer feedback and/or complaints to correct employee behaviors?
   \[SA = 9 \text{ or } 18\%, A = 18 \text{ or } 36\%, D = 17 \text{ or } 34\%, SD = 6 \text{ or } 12\%; \text{ Support } = 54\%.
\]

45. Provide feedback to employees regarding EMS customer perceptions about their customer service?
   \[SA = 17 \text{ or } 34\%, A = 28 \text{ or } 56\%, D = 1 \text{ or } 2\%, SD = 4 \text{ or } 8\%; \text{ Support } = 90\%.
\]

46. Identify employees providing excellent EMS customer service and reward or recognize their efforts?
   \[SA = 21 \text{ or } 42\%, A = 18 \text{ or } 36\%, D = 5 \text{ or } 10\%, SD = 6 \text{ or } 12\%; \text{ Support } = 78\%.
\]

47. Identify training needs related to recurrent EMS problems and/or recurring customer service delivery problems?
   \[SA = 16 \text{ or } 32\%, A = 28 \text{ or } 56\%, D = 4 \text{ or } 8\%, SD = 2 \text{ or } 4\%; \text{ Support } = 88\%.
\]
Summary of Comments on Action Plans Category Questions 1-7:

Three comments expressed support for obtaining feedback, and providing the feedback to supervisors and employees. One comment indicated that the customer satisfaction survey forms used by Rialto Fire Department are not consistently handed out by some supervisors. One comment questioned the concept of customer loyalty. One comment indicated a lack of trust that citizens know enough about what we do to offer input into how we operated. One comment felt survey data useful for training and public education.

Comments on Program and System Improvement Category Questions 8-13:

Three comments indicated that employees feel RFD does not provide enough internal customer service such as praise for good customer service delivery. Two comments in this category were venting. Three comments support the concept of listening to customers. One comment questioned the concept of customer loyalty. One comment indicated venting. Two comments indicated a lack of understanding how customer feedback can positively impact SOP’s, policies and procedures. One comment indicated the customer satisfaction survey process is inconsistent.

Comments on Listening to Customers Category Questions 14-28:

One comment felt customers have no right to form perceptions about fire personnel on the basis of their appearance. Two comments indicated that survey forms are an effective way to assess customer loyalty. One comment did not trust customer input as valuable to identify equipment defects. One comment indicated venting about repeat customers. Three comments do not trust that customer complaints on a survey form are legitimate complaints. One comment
indicated that television may influence customer perceptions on a survey form. Two comments felt that surveys provide a valid method to listen to customers.

Comments on Measurement Category Questions 29-35.

One comment indicated they did not trust customer perceptions because they have unrealistic expectations based on television shows. One comment indicated that management needs to determine performance indicators. One comment questioned the validity of RFD’s survey data because the data is based on misconceptions and prejudices.

Final Comments:

One comment questioned the reliability and validity of RFD’s survey data because not all supervisors consistently hand out the survey cards. Three comments indicated lack of support for utilizing survey data for use in evaluations or discipline. However, these statements were qualified. If an EMS employee received consistently bad survey results, they felt the survey results should be considered by management. Two comments indicated that soliciting EMS customer feedback should be more personal. Two comments expressed support for this research project and they were interested in seeing the results. Three comments suggested follow-up contact with customers who complain on a survey form. Two comments indicated venting that RFD needs to do more to promote EMS customer satisfaction. Another venting comment indicated frustration over repeat callers or patients who did not have legitimate reasons to call. Two comments support rewarding EMS employees who provide excellent service. One comment stated that customer satisfaction information needs to be shared with all EMS employees.

Discussion

The research methodology included a literature review of business, public and Fire-EMS literature. The researcher divided the literature into five major categories which organizations
were found to apply customer satisfaction data to improve service delivery in these categories. The categories were; action planning, program- system improvement, listening to customers, measurement and, customer-employee follow-up. Information gathered in the literature review served as a guideline to design two feedback instruments and personal interview questions.

Comparison of the Private-Public EMS and RFD feedback instruments

The Public-Private EMS service feedback instrument purpose was to determine what methods public and private EMS providers in Southern California are using to apply customer satisfaction survey data to improve EMS service delivery. Strongly agree (SA) or agree (A) indicates that the organization utilizes the method in question. Disagreeing (D) or strongly disagreeing (SD) with the statement indicated that they didn’t utilize the method. The RFD feedback instrument purpose was to determine what methods RFD should consider using to apply customer satisfaction survey data to improve EMS service delivery. This was accomplished by researching support or non support for an application of customer satisfaction survey data to various target areas. Strongly agree (SA) or agree (A) indicated respondent support and that RFD should consider utilizing the method in question. Conversely, disagreeing (D) or strongly disagreeing (SD) with the statement indicated respondent lack of support and that RFD would experience difficulty applying the data until more organizational understanding is accomplished through training. The results are compared and contrasted by comparing indicated use by the Public-Private EMS respondents with the indicated support of such usage by the RFD respondents. In addition, the personal interviews and literature review findings are included.

Action Planning

Fifty-five percent of Public-Private EMS provider respondents are utilizing EMS customer satisfaction survey research data to develop action plans to improve employee EMS
customer service behavior. In comparison, 88% of the RFD respondents support such data use. Baldrige (2002) mentions use of customer data to create action plans. Zemke & Woods (1999), mention action based on data collection. A similar concept was indicated by Kaiser as they discussed rating the quality of the data itself (E. Johnston, personal communication, January 9, 2006). Lantz (1995) stresses the importance of customer service action plans which address behavior. This is similar to Johnston who mentioned data use to address customer service behavior. Fifty-five percent of the Public-Private EMS respondents are utilizing EMS customer satisfaction survey data to improve employee customer service attitudes. ICMA (2002), Hendricks (2003), Brunacini (1998) and Lantz also recommend this application of data. Eighty-four percent of RFD respondents support such use. A similar use was mentioned by AMR in its Vision to Reality program (D. Molloy, personal communication, September 27, 2005).

Forty-five percent of the Public-Private EMS respondents reported using customer satisfaction data to improve employee skills in operating EMS equipment. Johnston, (personal communication, January 9, 2006) representing Kaiser, mentioned similar uses to identify and improve nursing skill levels. Seventy-two percent of the RFD respondents support such use.

Fifty percent of the Public-Private EMS respondents support use of customer satisfaction data to improve EMS employee knowledge. This concept is similar to Lantz who feels that customer feedback should assist in action planning to improve employee product and service knowledge. Seventy-six percent of the RFD respondents support such use of data. Wal- Mart mentioned employee product knowledge as important to customer satisfaction (P. Lane, personal communication, December 20, 2005). This finding is also similar to Holt (2002), Brunacini
(1998) and Holzer (2001) who emphasize customer feedback data use for continuous improvement action plans.

Only 35% of the Public-Private EMS respondents report use of customer satisfaction survey data to justify EMS budget requests. This application is mentioned by Holzer (2001) and Krajic (2001). Sixty-eight percent of the RFD respondents support such data use. The author’s experience with RFD members is that they show less interest in the budget process. Therefore, the lower support for budget applications is predictable. None of the personal interviews mentioned this use.

Fifty-five percent of the Public-Private EMS respondents mentioned use of data to create a positive EMS corporate culture. This is also mentioned by ICMA (2002), Heightman (2004) Barishansky & Jaskoll (2003) and Brunacini (1998). Ninety-four percent of the RFD respondents support such use. This use was also mentioned by Kaiser (E. Johnston, personal communication January 9, 2006). Only 30% of the Public-Private EMS respondents reported utilizing EMS customer satisfaction survey data to generate customer loyalty. Eighty-six percent of the RFD respondents support such use. Baldrige (2002) emphasizes the creation and maintenance of customer loyalty. The author assumed that Public-Private EMS respondents would understand that customer loyalty represents public support rather than repeat customers. However, there seems to be some misunderstanding about what customer loyalty means in EMS. Customer loyalty was mentioned by Target as an important application of customer satisfaction data (D. Lynch, personal communication, October 19, 2005).

The overall average of the Public-Private EMS respondents in the action-planning category was 46% usage of customer satisfaction data. This finding was surprising to the author. I expected to find more use of data in this category. Onieal (personal communication January 31,
2006) mentioned actionable feedback as an overall use of customer satisfaction data by the NFA. McAfee (personal communication, September 26, 2005) mentioned use of data to create a customer service action plan and also for use in strategic planning, a use not mentioned by anyone else in the research.

The Public-Private EMS respondents indicated more usage of data for action plans related to customer service behavior, customer service attitudes, and corporate culture. They indicated less use of customer satisfaction data to improve employee skills, improve EMS professional knowledge. The Public-Private EMS respondents indicated the least amount of use for customer loyalty and EMS budget justification. In contrast, RFD respondents scored this category with the second highest overall average at 82% in their feedback instrument in support of such data usage. Application would probably receive more organizational support for addressing employee customer service behavior, attitude, corporate culture and customer loyalty. RFD respondents offered less support for employee skills, EMS knowledge, and budget applications.

Program-System Improvement

Fifty percent of the Public-Private EMS respondents indicated use of customer satisfaction survey data to create EMS customer service SOP’s. Brunacini (1998), Krajic (2001), Wurster (2001), and Owens (2001), support such use. McAfee (personal communication, September 26, 2005) also mentioned this application. RFD respondents indicated 52% support for such use of data. Fifty percent of the Public-Private EMS respondents reported utilizing EMS customer satisfaction survey data to create EMS organizational policies. This application is advocated by Brunacini (1998), Owens (2001), and Jones (1997). This application was not
Application of EMS Customer

mentioned in any of the personal interviews. Forty-four percent of the RFD respondents support such use.

Forty percent of the Public-Private EMS respondents indicated use of data to create organizational procedures. Brunacini (1998), Krajic (2001), Wurster (2001), and Owens (2001), support such use. Forty-two percent of the RFD respondents supported such use. Forty-five percent of the Public-Private EMS respondents indicated use of data to create organizational rules. This application was commented on by Owens (2001). RFD respondents indicated 40% support for such use. None of the personal interviews mentioned this application. Forty-five percent of the Public-Private EMS respondents reported utilization of data to design EMS customer service training programs. This concept is mentioned by Holzer (2001), Brunacini (1998), Gaebler & Osborne (1993) and Wurster (2001). Target, (D. Lynch, personal communication, October 19, 2005) Kaiser, (E. Johnston, personal communication, January 9, 2006) Toyota, (R. Johnson, personal communication, January 25, 2006) Rialto, (W. McAfee, personal communication, September 26, 2005) Riverside, (R. Strout, personal communication, January 12, 2006) and AMR (D. Molloy, personal communication, January 31, 2006) all mentioned the application of customer satisfaction data to training programs. RFD respondents indicated 78% support for such use. Training was found to be a very significant application of customer satisfaction survey data.

Fifty-five percent of the Public-Private EMS respondents reported customer satisfaction survey data use to identify new EMS program needs. This is also mentioned by Brunacini, Krajic (2001) and Whiteley (1991). This application was mentioned by Kaiser (E. Johnston, personal communication, January 9, 2006) in the form of evaluation of customer suggestions. RFD respondents indicated 88% support for this application of data.
Overall, 47.5% of the Public-Private EMS respondents reported the use of customer satisfaction survey data in the Program-System Improvement category. Fifty-eight percent of the RFD respondents supported such use. Brunacini (1998) has an excellent system to enhance understanding in this area. The RFD feedback instrument data suggests less organizational support for use of customer satisfaction data to improve EMS programs until training is addressed to increase understanding in this area. RFD respondent support was especially low in the areas of SOP, organizational policy, organizational procedure, and organization rule applications. Use of data for new EMS programs or EMS customer service training received more support than the other items in this category.

Listening to Customers

Fifty percent of the Public-Private EMS respondents indicated utilization of customer satisfaction survey data to identify EMS customers perceived needs. This application is also mentioned by Temme (1995), and Drumm (2000). Target, (D. Lynch, personal communication, October 19, 2005) Wal-Mart, (P. Lane, personal communication, December 20, 2005) Kaiser, (E. Johnston, personal communication, January 9, 2006) Toyota, (R. Johnston, personal communication January 25, 2006) and AMR (D. Molloy, personal communication, September 27, 2005) mentioned this application. RFD respondents indicated 78% support for such use of data. Fifty-five percent of the Public-Private EMS respondents reported use of survey data to identify EMS customer perceptions about service delivery, an application also mentioned by Baldrige (2002) and Drumm (2000). This application is one of the two big uses of Toyota (R. Johnson, personal communication, January 25, 2006). The NFA, (D. Onieal, personal communication, January 31, 2006) and AMR (D. Molloy, personal communication, September
27, 2005) also mention this application. Eighty-six percent of the RFD respondents offered support for such use.

Fifty percent of the Public-Private EMS respondents indicated use of data in identifying opportunities to provide additional EMS services, an application mentioned by Owens (2001). This application is similar to Target’s (D. Lynch, personal communication, October 19, 2005) product preferences, Wal-Mart’s (P. Lane, personal communication, December 20, 2005) product line, and Kaiser’s (E. Johnston, personal communication, January 9, 2006) identification of customer preferences. Eighty percent of RFD respondents support this use. Fifty percent of the Public-Private EMS respondents reported utilization of data to identify methods to enhance EMS customer service, a similar application promoted by Owens (2001). This application is similar to Kaiser’s care improvement. RFD respondents indicated 86% support for such data use.

Forty-five percent of the Public-Private EMS respondents reported customer satisfaction data use to identify components of EMS customer service to be discontinued, an application mentioned by Owens (2001). This application is similar to Target’s (D. Lynch, personal communication, October 19, 2005) customer preferences or Wal-Mart’s (P. Lane, personal communication, December 20, 2005) product lines. RFD respondents indicated an 80% level of support for such use. Fifty percent of the Public-Private EMS respondents reported data use to identify methods to enhance EMS organizational learning, a concept promoted by Baldrige (2002) and Brunacini (1998). None of the personal interviews indicated this application. Ninety percent of the RFD respondents supported such use of data. Fifty-five percent reported data use for EMS market definition, an application mentioned by Holt (2002). Application of data for
marketing was mentioned by Kaiser (E. Johnston, personal communication, January 9, 2006). Seventy-six percent of the RFD respondents support such use.

Fifty-five percent of the Public-Private EMS respondents indicated use of data to identify hot button issues like such as quality service, on time service, courtesy, respect, professionalism and employee appearance. Seventy-eight percent of RFD respondents support such data use. These customer satisfaction issues are mentioned in (The Customer Communicator, 2004). Likewise, Riverside (R. Strout, personal communication, January 12, 2006) mentioned timeliness of city services, and the NFA (D. Onieal, personal communication, January 31, 2006) mentioned quality as an application of data. Fifty-five percent of the Public-Private EMS respondents reported using EMS customer satisfaction survey data to define EMS customer perceptions about the organization. This application was mentioned by Baldrige (2002), Drumm (2000), Marcucci (2002) and Whiteley (1999). Target (D. Lynch, personal communication, October 19, 2005) mentioned this in the form of feedback to employees regarding customer perceptions. Eighty-two percent of the Rialto respondents support such use of data.

Only 35% percent of the Public-Private EMS respondents indicated use of customer satisfaction survey data to define EMS customer loyalty. RFD respondents indicated 74% support for such use of data. This application was mentioned by Baldrige (2002), Drumm (2000), Whiteley (1991) and Holzer (2001). This application was also mentioned by Target (D. Lynch, personal communication, October 19, 2005) Eighty-two percent of the RFD respondents support this use. Forty percent of the Public-Private EMS respondents mentioned using data to define EMS customer quality expectations, an application mentioned by Baldrige, Whiteley (1999), FEMA (1998). Seventy-eight percent of the RFD respondents support such use of data. Kaiser
(E. Johnston, personal communication January 9, 2006) and the NFA (D. Onieal, personal communication, January 31, 2006) mentioned these applications.

Fifty percent of the Public-Private EMS respondents indicated use of customer satisfaction survey data to identify methods to exceed EMS customer expectations. This application of data is promoted by Brunacini (1998) and practiced by Phoenix FD. Eighty-two percent of the RFD respondents support such use. This application was not mentioned in the personal interviews. Forty percent of the Public-Private EMS respondents reported data use to discover EMS equipment or service delivery defects, an application mentioned by Baldrige (2002), and Jones (1997). This application was mentioned by Kaiser (E. Johnston, personal communication, January 9, 2006) in the form of identifying and researching problems. Seventy-four percent of RFD respondents support such use.

Fifty percent of the Public-Private EMS respondents indicated data use to identify EMS trends in customer service delivery, a concept mentioned by Whiteley (1991) and Baldrige. A similar application was mentioned by the NFA (D. Onieal, personal communication, January 31, 2006). This application received 88% support from the RFD respondents. Fifty percent of the Public-Private EMS respondents indicated data use in discovering root causes to EMS customer service delivery problems, an application mentioned by Baldrige (2002). The NFA also mentioned this application of data (D. Onieal, personal communication, January 31, 2006). In contrast, RFD respondents indicated 88% support for such use of data.

Baldrige (2002), Temme (1994), and Gaebler and Osborne (1993) support the use of customer satisfaction survey data to listen to customers and follow-up on their concerns. The NFA mentioned listening as an application of data (D. Onieal, personal communication, January 31, 2006). RFD respondents indicated an overall average support of 83.5% for this category,
their highest overall level of support for all of the categories. This suggested that work to utilize customer satisfaction data should begin here because there was more respondent support.

Measurement

Utilization of EMS customer satisfaction survey data to measure customer perceptions received the following percentages. Overall, fifty percent of the Public-Private EMS respondents indicated use in this category. The RFD respondents overall average in this category indicated 82% support.

Fifty-five percent of the Public-Private EMS respondents reported utilization of EMS customer satisfaction survey research data to measure customer perceptions about EMS service quality. Similar applications were also recommended by ICMA (2002) Baldrige (2002) and the NFA (D. Onieal, personal conversation, January 31, 2006). RFD respondents indicated 90% support for such use of data. Fifty-five percent of the Public-Private EMS respondents reported use of EMS customer satisfaction data about EMS service received, an application similar to Temme (1994), AMR in the form of patient ratings (D. Molloy, personal communication, January 31, 2006), the NFA’s student customer service feedback (D. Onieal, personal communication, January 31, 2006), Toyota’s rating of service (R. Johnson, personal communication, January 25, 2006), Target’s customer surveys (D. Lynch, personal communication, October 19, 2005), Wal-Marts’ customer surveys (P. Lane, personal communication, December 20, 2005), and Kaiser’s rating of business lines (E. Johnston, personal communication, January 9, 2006). Eighty-six percent of the RFD respondents support such use of data.

Fifty-five percent of the Public-Private EMS respondents reported use of data to eliminate guesswork in identifying EMS customer service delivery problems. This use of data is
advocated by ICMA (2002). Seventy-two percent of the RFD respondents support such use of data. This application is similar to Kaiser’s attention to reliable data (E. Johnston, personal communication, January 9, 2006). Fifty-five percent of the Public-Private EMS respondents reported use of EMS customer satisfaction survey data to produce reliable data measurements of EMS performance indicator benchmarks. This application is similar to Baldrige (2002) and Marcucci (2002), Kaiser’s comparison of business lines against other hospitals (E. Johnston, personal communication, January 9, 2006), and Target’s Customer Service Index (D. Lynch, personal communication, October 19, 2005. Eighty percent of RFD respondents support such use of data.

Fifty-five percent of the Public-Private EMS respondents mentioned use of EMS customer satisfaction survey data to discover cause and effect relationships between EMS programs and customer perceptions. Similar applications are mentioned by ICMA (2002) and Baldrige (2002). This application was not mentioned by the personal interviews. RFD respondents indicated 74% support for such use of data. Forty-five percent of the Public-Private EMS respondents indicated use of data to provide reliable evaluation of customer perceptions regarding EMS customer service delivery. Data reliability was an application mentioned by Kaiser (E. Johnston, personal communication, January 9, 2006). Eighty percent of the RFD respondents indicated support for such use. Forty percent of the Public-Private EMS respondents indicated use of data to measure EMS customer perceptions about product quality, similar to applications mentioned by FEMA (2002), ICMA (2002) Baldrige, Wal-Mart (P. Lane, personal communication, December 20, 2005) and Kaiser (E. Johnston, personal communication, January 9, 2006). RFD respondents indicated 82% support for such use.
RFD respondents had more support for utilization of customer satisfaction data to measure EMS customer service. This category should be addressed next after Listening to Customers. The highest levels of support in this category were found in measuring customer perceptions about quality, service delivery, comparing measurements against benchmarks, providing reliable data, and measuring product quality. Management attention to these areas of customer service measurement may increase trust and build momentum for future applications in the other lower scoring applications. The Public-Private EMS respondents indicated an overall use of 49% in this category.

Customer-Employee Follow-up

Sixty percent of the Public-Private EMS respondents reported utilization of customer satisfaction data to follow-up on customer complaints. This application was recommended by Temme (1994), Holzer (2001), Barishansky & Jaskoll (2004), Holt (2002) and Baldrige (2002). It was also mentioned by the NFA (D. Onieal, personal communication, January 31, 2006), Target (D. Lynch, personal communication, October 19, 2005), Wal-Mart (P. Lane, personal communication, December 20, 2005), and AMR (D. Molloy, personal communication, September 27, 2005). Eighty-six percent of RFD respondents support such use of data. Sixty percent of the Public-Private EMS respondents reported use of data to identify and resolve negative EMS customer feedback, also mentioned by Barishansky & Jaskoll (2004). This application was also mentioned by the NFA (D. Onieal, personal communication, September 27, 2005), and Kaiser (E. Johnston, personal communication, January 9, 2006). Eighty-six percent of the RFD respondents support such use.

Sixty percent of the Public-Private EMS respondents reported use of data to communicate care to customers. Similar applications are mentioned by Baldrige (2002), and Temme (1994),
and generally most other authors and personal interviews in the form of listening in general. Ninety percent of RFD respondents support such use. Fifty percent of the Public-Private EMS respondents mentioned customer satisfaction survey data use to identify and track EMS customer complaints, an application mentioned by Baldrige (2002), Temme (1994), Krajic (2001), Holt (2002), the NFA (D. Onieal, personal communication, January 31, 2006), Target (D. Lynch, personal communication, October 19, 2005) and Kaiser (E. Johnston, personal communication, January 9, 2006). Eighty percent of Rialto respondents support such use of data.

Fifty percent of the Public-Private EMS respondents reported use of data to reduce the number of EMS customer complaints. Similar applications are mentioned by Baldrige (2002), ICMA, Krajic (2001), Target (D. Lynch, personal communication, October 19, 2005), and Kaiser (E. Johnston, personal communication, January 9, 2006). Seventy percent of Rialto respondents support such use of data. Fifty percent of the Public-Private EMS respondents mentioned data use to identify root causes of EMS customer delivery problems, which is similar to applications mentioned by Baldrige and ICMA (2002). RFD respondents indicated 80% support for such use.

Only 35% of the Public-Private EMS respondents reported the use of EMS customer feedback in performance appraisals, a concept recommended by ICMA (2002), Holzer (2001), FEMA (2002), and Gaebler & Osborne (1993). This application was also mentioned by AMR (D. Molloy, personal communication, September 27, 2005), the NFA (D. Onieal, personal communication, January 31, 2006) in the form of class evaluations, and Target (D. Lynch, personal communication, October 19, 2005). In contrast, Toyota (R. Johnson, personal communication, January 25, 2006) and Kaiser (E. Johnston, personal communication, January 9, 2006) mentioned that their application of customer satisfaction data was blame free. Only 44%
of the RFD respondents support such use of data. The researcher noticed a lot of controversy surrounding the application of customer satisfaction data to the performance appraisal process.

Fifty-five percent of the Public-Private EMS respondents reported use of customer satisfaction data for follow-up with EMS employees to provide customer feedback or correct employee attitudes. Similar recommendations were mentioned by Marcucci (2002), Krajic (2001), Holt (2002), Gaebler and Osborne (1993) Evans (2003), and ICMA (2002). This application was mentioned by Target (D. Lynch, personal communication, October 19, 2005), Wal-Mart (P. Lane, personal communication, December 20, 2005), Kaiser (E. Johnston personal communication, January 9, 2006) and Toyota (R. Johnson, personal communication, January 25, 2006) in the form of reports. It was mentioned by the NFA in the form of tuning up instructors based on student feedback. AMR mentioned this application in the form of coaching points (D. Molloy, personal communication, September 27, 2005). Only 56% of RFD respondents support such use of data.

Fifty-five percent of the Public-Private EMS respondents reported data use to correct EMS employee behaviors. This concept is supported by Page (2003) and argued against by Holt (2002), and Wurster (2001). Gaebler and Osborne, and ICMA similarly believe customer satisfaction survey data should be utilized to hold supervisors and managers accountable for customer issues. Target (D. Lynch, personal communication, October 19, 2005) and Wal-Mart (P. Lane, personal communication, December 20, 2005) also supported this application. In contrast, Kaiser (E. Johnston, personal communication, January 9, 2006), Riverside (R. Strout, personal communication, January 12, 2006), and Toyota (R. Johnson, personal communication, January 25, 2006) weighed in on the blame free side of application. Barishansky & Jaskoll (2004), and Evans disagree with the concept of employee correction associated with customer
Application of EMS Customer satisfaction survey data. This is a controversial issue with lots of disagreement. Only 54% percent of the RFD respondents support the use of customer satisfaction data to correct employee behavior.

Fifty-five percent of the Public-Private EMS respondents support the application of customer satisfaction survey data to provide feedback to employees regarding EMS customer perceptions, also recommended by Baldrige (2002) and Drumm (2000). A similar application was mentioned by Target (D. Lynch, personal communication, October 19, 2005), Wal-Mart (P. Lane, personal communication, December 20, 2005), Kaiser (E. Johnston, personal communication, January 9, 2006), Toyota (R. Johnson, personal communication, January 25, 2006), and AMR (D. Molloy, personal communication, September 27, 2005). Ninety percent of the RFD respondents support such use.

Fifty percent of the Public-Private EMS respondents reported survey data use to identify and reward employees, a concept recommended by Brunacini (1998), Wurster (2001) and Baldrige. Target (D. Lynch, personal communication, October 19, 2005), Wal-Mart (P. Lane, personal communication, December 20, 2005), and Toyota (R. Johnson, personal communication, January 25, 2006) mentioned this application. Seventy-eight percent of the RFD respondents support such use of data, a surprise to the author who expected a higher level of support for this item. Fifty percent of the Public-Private EMS respondents recommend use of data to identify training needs, also a recommendation of Owens (2001), Holzer (2001), and Holt (2002). This application was mentioned by AMR (D. Molloy, personal communication, September 27, 2005), Rialto (W. McAfee, personal communication, September 26, 2005), Toyota (R. Johnson, personal communication, January 25, 2006), Kaiser, (E. Johnston, personal
communication, January 9, 2006), and Target (D. Lynch, personal communication, October 19, 2005). This received 88% support from the RFD respondents.

The overall use of customer satisfaction in the customer-employee category by the Public-Private EMS respondents was fifty-two percent. The overall support by the RFD respondents was seventy-five percent. When customer follow-up is separated from employee follow-up, then the RFD respondent support is increased to 82% suggesting more support for this application. In contrast, only 68% of the RFD respondents supported applications to employee follow-up.

Similar to the use of customer satisfaction survey data to correct behavior, Public-Private EMS community seems reluctant to utilize such data for performance appraisals whereas the public administration and private sectors favor the application. The research data in this category suggests a fair amount of organizational support by the RFD respondents for the application of customer satisfaction survey data with several exceptions. To assure success, management should avoid use of such data in complaint reduction, performance appraisals, attitude correction, and behavior correction until these areas are addressed with more customer service training to increase understanding.

Oral Comments

Comments were received by some Rialto respondents that not all supervisors are handing out customer satisfaction survey cards was enlightening. This practice obviously skews the results of the customer satisfaction data gathered by RFD. Adjustments to our data gathering process are indicated. This finding was unexpected. Some respondents mistrust the of customer satisfaction data to improve SOP’s, policies and procedures because they feel the customer is not
qualified to impact change. These comments reinforce the need for more organizational training in these areas.

Implications for Rialto

It is the intent of the author to utilize the research findings in this project to promote organizational health and survival. It is the author’s opinion that nothing will sink an organization faster than poor customer service. AMR, RFD’s competition, understands this and commits organizational energy to improve EMS service delivery based on reliable customer satisfaction data. RFD needs to take this issue serious and commit to apply the research findings to affect organizational change.

This research project identified a wealth of information on how organizations are applying customer satisfaction survey data to improve service delivery. If RFD desires to continue receiving financial support from city administration and citizens, then we must embrace the concept of improving service delivery based on scientific customer satisfaction survey data. This project has identified RFD respondent support to apply customer satisfaction survey data to planning, follow-up, listening, measurement, and system improvement. Application of customer satisfaction survey data to listening, employee recognition, customer feedback, training, and measurement will enhance RFD’s competitive edge.

Recommendations

First Steps to Change

- RFD needs to gather more comprehensive customer satisfaction survey data on all lines of business.

- The research findings will to be presented to the fire chief, command staff, and company officers at the bi-monthly officers meeting.
• Feedback on the research findings will be presented to field personnel by the training division.

Recommended Changes

• Rialto Fire Department will begin by concentrating on using customer satisfaction data to listen to EMS customers. This area received the highest overall level of support, 83.5%, from Rialto Fire Department respondents.

• Rialto Fire Department will create a recognition component to the customer service program to identify and reward excellent EMS customer service.

• Due to their high levels of support by the Rialto respondents, 90%, I recommend utilizing EMS customer satisfaction data to provide feedback to employees about customer satisfaction ratings on a quarterly basis.

• I also recommend creating an action plan to address the employee corporate culture. This received (90%) support from the Rialto respondents.

• More training in the area of Program-System improvement is recommended to generate understanding. The Rialto respondents revealed that there is organizational misunderstanding about how customer feedback can positively impact organizational policies, procedures SOP’s, and organizational rules. Brunacini (1998) offers an excellent model to emulate.

• Incorporate into the customer satisfaction training module an explanation of the nexus between customer satisfaction and budget justification.

• Incorporate into the customer satisfaction training module the importance of identifying new EMS opportunities discovered in survey data.
• Incorporate into the customer satisfaction training module the importance of utilizing customer satisfaction data to reduce customer complaints.

• The topic of customer loyalty needs to be explained to RFD personnel. Understanding this is very important to the upcoming utility user’s tax election. Customer loyalty to RFD means voter support.

• I recommend against utilizing customer satisfaction survey data for employee appraisals, discipline or holding supervisors accountable until more education is provided to the organization on this controversial application.

Benefits Expected From the Changes

• Better organizational understanding of EMS customer satisfaction issues.

• Improved capability to listen to customers and improve service.

• Improved EMS customer satisfaction through the use of customer satisfaction data to improve EMS customer delivery systems.

• Improved customer follow-up.

• Improved morale created through rewarding of good customer service delivery.

• Improved employee feedback on customer perceptions.

Changes Already Implemented

• One change that has occurred as a result of this research is that RFD is gathering more customer satisfaction survey data. An internet customer satisfaction survey form was added to the Rialto web site. There are still operational issues that Information Technology Services is working on with this application.
Another change already implemented because of the research findings is that RFD has directed our EMS billing contractor to gather customer satisfaction data to assure more reliability of our data. The benefit is twofold: (1) Field personnel know we they are being evaluated on customer service delivery, (2) Data is not subject to arbitrary decisions by field personnel to hand out customer satisfaction survey cards.

Additional Research Needed

- The items in this study that received low levels of support by the EMS provider group need more research. They are customer loyalty, SOP’s, organizational policies, organizational procedures, organizational rules, identifying customer opportunities, discontinue EMS components, discover root causes, performance appraisals, identify EMS service problems, and performance indicators.

- The items in this study that received low levels of support by Rialto Fire Department members need more research. They are budget justification, SOP’s, organizational policies, organizational procedures, organizational rules, performance appraisals, correct employee attitudes, and correct employee behavior.

Implementation: One year goals

- Presentation of research findings to fire chief, command staff, company officers and field personnel.

- Institute the employee recognition component to the customer service program.

- Incorporate a component into RFD’s annual customer service training refresher:
  - How to utilize customer satisfaction survey data to improve organizational policies, procedures SOP’s, and organizational rules.
• To increase understanding of customer loyalty and why it is important to passing the utility user’s tax.

• The nexus between customer satisfaction and the ability of RFD to justify EMS budget requests.

• The importance of identifying new EMS opportunities.

• Start producing quarterly reports to RFD personnel on EMS customer service delivery.

Two Year Goals

• Utilizing EMS customer satisfaction data to measure perceived quality of service, provide feedback to employees about customer satisfaction ratings on a regular basis, and create an action plan to address the corporate culture.

• Concentrate on listening to customers. This area received the highest level of support from Rialto Fire Department respondents.

• Concentrate on complaint reductions.

Three Year Goals

• Concentrate on utilizing EMS customer satisfaction data to improve the other categories mentioned in the research including action plans, program-system improvement, measurement and customer-employee follow-up.

Follow-up Evaluation

• Follow-up evaluations to coincide with one year, two year and three year goals.

Research Replication and Recommendations

• Do not ask as many questions in the feedback instruments. Handling the data was an enormous task! My advice to future researchers, shorten the instrument.
• Reputation management is a key component to future customer satisfaction programs and would be an interesting topic for future research.

• Customer satisfaction, service, and marketing are very important issues for fire department survival and deserve attention. Every organization should consider this area and make it a priority.
References

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Appendix A

Research Questionnaire on Customer Satisfaction Survey Data

Rialto is located about 60 miles east of Los Angeles between the cities of Colton and Fontana in San Bernardino County. Rialto Fire Department Deputy Chief Jim Bruce is conducting a National Fire Academy EFOP survey on how public and private EMS providers utilize EMS customer satisfaction survey data to improve EMS customer service delivery and customer follow-up in Southern California. Your organization was chosen because of its location in Southern California to complete the attached questionnaire. The questionnaire has 47 questions and should take ten to fifteen minutes to complete. If possible, please have the individual in your organization responsible for EMS customer satisfaction, customer service, or customer follow-up complete the questionnaire. If you have any questions, please contact Deputy Fire Chief Jim Bruce at 909-421-7270 or 909-800-0773.

In order to assure anonymity for your answers, your completed questionnaire will be printed and then your return email will be deleted. There are no personal identifiers on the questionnaire and therefore, no way to link your department’s answers to the questionnaire once the email has been deleted. However, if you want a copy of the final research findings, please indicate by checking the appropriate box on the survey form with your email address. After completing the questionnaire, follow the instructions on the questionnaire and return it as an email attachment to Deputy Chief Jim Bruce. His email address is provided on the survey form with instructions. Thank you for your willingness to participate.

Sincerely,

Deputy Fire Chief Jim Bruce
Rialto Fire Department
131 S. Willow,
Rialto CA 92376
Appendix B

Research Questionnaire on Customer Satisfaction Survey Data

Rialto Deputy Fire Chief Jim Bruce

Directions: Please indicate your response to the following questions by placing an X in the appropriate box.

- To place an X in the box, double click on the box and the “check box form field options” will appear.
- Then select “checked” in the default value box.
- After this, click on OK.
- If you change your mind on an answer, double click on the box again and then select “unchecked”. Then select your new answer in accordance with the previous instructions.
- At the bottom of each category, there is space to add comments regarding any question in that category.
- After completing the questionnaire, save the document and then email the questionnaire as an attachment back to Jim Bruce at: jbruce@confire.org by January 29, 2006.
- If you have any questions, call Jim Bruce at 909-421-7270 or 909-800-0773.
- Thank you for your input!

Category: (Action Plans) This category addresses the utilization of EMS customer satisfaction survey research data to develop action plans which address customer service issues in your organization.

My organization utilizes EMS customer satisfaction survey research data to develop action plans which:

1. Concentrate on improving employee EMS customer service behavior?
   - [ ] Strongly Agree
   - [ ] Agree
   - [ ] Disagree
   - [ ] Strongly disagree

2. Concentrate on improving the EMS customer service delivery attitudes of our employees?
   - [ ] Strongly Agree
   - [ ] Agree
   - [ ] Disagree
   - [ ] Strongly Disagree
3. Addresses improving employee skills in operating EMS equipment in order to improve customer service?
   - [ ] Strongly Agree
   - [ ] Agree
   - [ ] Disagree
   - [ ] Strongly disagree

4. Concentrate on improving the EMS professional knowledge base of our employees in order to improve customer service?
   - [ ] Strongly Agree
   - [ ] Agree
   - [ ] Disagree
   - [ ] Strongly disagree

5. Addresses justification of EMS budget requests to fund its programs?
   - [ ] Strongly Agree
   - [ ] Agree
   - [ ] Disagree
   - [ ] Strongly disagree

6. Design a positive, EMS customer centered company attitude? (Company attitude is sometimes referred to as climate, or corporate culture.)
   - [ ] Strongly Agree
   - [ ] Agree
   - [ ] Disagree
   - [ ] Strongly disagree

7. Generate or creates EMS customer loyalty?
   - [ ] Strongly Agree
   - [ ] Agree
   - [ ] Disagree
   - [ ] Strongly disagree

Comments:

Category: (Program/System Improvement) Utilization of EMS customer satisfaction survey research data to improve EMS customer service programs or systems.

My organization utilizes EMS customer satisfaction survey research data to create customer service delivery:

8. Standard Operating Procedures?
   - [ ] Strongly Agree
   - [ ] Agree
   - [ ] Disagree
   - [ ] Strongly disagree
9. Organizational policies?

- [ ] Strongly Agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

10. Organizational Procedures?

- [ ] Strongly Agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

11. Organizational Rules?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

12. EMS customer service training programs?

- [ ] Strongly Agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

13. Identify new EMS programs needed?

- [ ] Strongly Agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly Disagree
Comments:
Category: (Listening to customers) Utilization of EMS customer satisfaction survey research data to listen to customer input in order to improve customer service delivery or follow-up.

My organization utilizes EMS customer satisfaction survey research data (Customer Feedback) to:

14. Identify EMS customer’s perceived needs?
   □ Strongly agree □ Disagree
   □ Agree □ Strongly disagree

15. Determine EMS customer perceptions about the customer service they received from my organization and/or its’ employees?
   □ Strongly agree □ Disagree
   □ Agree □ Strongly disagree

16. Discover or identify EMS customer service delivery opportunities to provide additional services to customers?
   □ Strongly agree □ Disagree
   □ Agree □ Strongly disagree

17. Discover or identify methods of how to enhance existing EMS customer service?
   □ Strongly agree □ Disagree
   □ Agree □ Strongly disagree

18. Identify and discontinue the delivery of EMS customer service components that are no longer pertinent or needed?
   □ Strongly agree □ Disagree
   □ Agree □ Strongly disagree

19. Enhance organizational learning about EMS customer service delivery?
   □ Strongly agree □ Disagree
   □ Agree □ Strongly disagree

20. Help define my organization’s EMS customer market more precisely?
   □ Strongly agree □ Disagree
   □ Agree □ Strongly disagree
21. Identify hot button issues in which EMS customers hold our organization responsible. For example, issues which are most likely to generate a complaint to higher ups such as: Quality service, on time service, respect, courteous employees, product quality, professionalism, physical appearance of employees etc?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

22. Define EMS customer perceptions about your organization?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

23. Define EMS customer loyalty. (Community support, repeat customers, etc.)

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

24. Define EMS customer expectations of what they consider as quality customer service?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

25. Identify methods to satisfy EMS customers and exceed their expectations?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

26. Identify equipment or EMS customer service delivery defects?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

27. Identify trends in EMS customer service delivery and/or warning signals of problems, which are developing or on going?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

28. Discover root causes to EMS customer service delivery problems?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree
Comments:
Measurement: (Measurement of Customer Service Delivery Components) Utilization of EMS customer satisfaction survey research data to measure customer perceptions about customer service delivery.

My organization utilizes EMS customer satisfaction survey research data (customer feedback) to measure:

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
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<td>30</td>
<td>EMS customer satisfaction with service delivery provided?</td>
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<td>31</td>
<td>Eliminate guesswork in identifying EMS customer service delivery problems or issues?</td>
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<td>32</td>
<td>Performance indicators against EMS customer service benchmarks?</td>
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<tr>
<td>33</td>
<td>Discover cause and effect relationships between EMS programs and customer service perceptions?</td>
<td></td>
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<td>34</td>
<td>To provide reliable, factual EMS customer service delivery data that evaluates customer perceptions about customer service performance?</td>
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<tr>
<td>35</td>
<td>EMS customer perceptions about product quality?</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Comments:  
Category: (Customer Follow-up) Utilization of EMS customer satisfaction survey research data to develop follow-up on customer comments, complaints, and suggestions.

My organization utilizes EMS customer satisfaction survey research data (customer feedback) to follow-up on:

36. EMS customer complaints about the customer service they received?
   - [ ] Strongly agree  [ ] Disagree
   - [ ] Agree  [ ] Strongly disagree

37. To identify and resolve negative EMS customer service feedback?
   - [ ] Strongly agree  [ ] Disagree
   - [ ] Agree  [ ] Strongly disagree

38. To communicate to EMS customers that we care about their customer feedback? (Hawthorne effect)
   - [ ] Strongly agree  [ ] Disagree
   - [ ] Agree  [ ] Strongly disagree

39. To identify and track EMS customer complaints?
   - [ ] Strongly agree  [ ] Disagree
   - [ ] Agree  [ ] Strongly disagree

40. To reduce the number of EMS customer complaints?
   - [ ] Strongly agree  [ ] Disagree
   - [ ] Agree  [ ] Strongly disagree

41. To help identify and diagnose root causes to EMS customer service delivery problems?
   - [ ] Strongly agree  [ ] Disagree
   - [ ] Agree  [ ] Strongly disagree

To follow-up with our EMS employees including:

42. Utilizing EMS customer feedback in performance appraisals?
   - [ ] Strongly agree  [ ] Disagree
   - [ ] Agree  [ ] Strongly disagree
43. Utilizing EMS customer feedback and/or complaints to correct employee attitudes?

☐ Strongly agree  ☐ Disagree  
☐ Agree  ☐ Strongly disagree

44. Utilizing EMS customer feedback and/or complaints to correct employee behaviors?

☐ Strongly agree  ☐ Disagree  
☐ Agree  ☐ Strongly disagree

45. Provide feedback to employees regarding EMS customer perceptions about their customer service?

☐ Strongly agree  ☐ Disagree  
☐ Agree  ☐ Strongly disagree

46. Identify employees providing excellent EMS customer service and reward or recognize their efforts?

☐ Strongly agree  ☐ Disagree  
☐ Agree  ☐ Strongly disagree

47. Identify training needs related to recurrent EMS problems and/or recurring customer service delivery problems?

☐ Strongly agree  ☐ Disagree  
☐ Agree  ☐ Strongly disagree

Final Comments:

If you wish to receive a copy of the final EFOP paper, please indicate your desire below.

☐ Yes, I would like to receive a copy of final EFOP paper.
   Note: Please write your email address here to receive a copy.

☐ No, I am not interested in receiving a copy of the survey results.
Appendix C

Research Questionnaire on Customer Satisfaction Survey Data

I am conducting a survey on how public and private EMS providers utilize EMS customer satisfaction survey data to improve EMS customer service delivery and customer follow-up in Southern California. I am also interested in hearing your perspective on this topic.

In order to assure anonymity for your answers, your completed questionnaire will be printed and then your return email will be deleted. There are no personal identifiers on the questionnaire and therefore, no way to link your answers to the questionnaire once the email has been deleted. A summary of the data collected, as well as the final research findings will be shared with Rialto Fire personnel. After completing the questionnaire, follow the instructions on the questionnaire and return it as an email attachment to Deputy Chief Jim Bruce. Thank you for your willingness to participate. Please answer the questions as you truly feel and not as you think the department would like you answer the questions.

Sincerely,

Deputy Fire Chief Jim Bruce
Rialto Fire Department
131 S. Willow,
Rialto CA 92376
Appendix D

Research Questionnaire on Customer Satisfaction Survey Data
Rialto Deputy Fire Chief Jim Bruce

Directions: Please indicate your response to the following questions by placing an X in the appropriate box.

• To place an X in the box, double click on the box and the “check box form field options” will appear.
• Then select “checked” in the default value box.
• After this, click on OK.
• If you change your mind on an answer, double click on the box again and then select “unchecked”. Then select your new answer in accordance with the previous instructions.
• At the bottom of each category, there is space to add comments regarding any question in that category.
• After completing the questionnaire, save the document and then email the questionnaire as an attachment back to Jim Bruce at jbruce@confire.org by April 1, 2006.
• If you have any questions, call Jim Bruce at 909-421-7270 or 909-800-0773.
• Thank you for your input! It will remain anonymous and confidential.

Category: (Action Plans) This category addresses the utilization of EMS customer satisfaction survey research data to develop action plans which address customer service issues in your organization.

Rialto Fire Department should utilize EMS customer satisfaction survey research data to develop action plans which:

1. Concentrate on improving employee EMS customer service behavior?

   [ ] Strongly Agree
   [ ] Agree
   [ ] Disagree
   [ ] Strongly disagree

2. Concentrate on improving the EMS customer service delivery attitudes of our employees?

   [ ] Strongly Agree
   [ ] Agree
   [ ] Disagree
   [ ] Strongly Disagree

3. Addresses improving employee skills in operating EMS equipment in order to improve customer service?

   [ ] Strongly Agree
   [ ] Agree
   [ ] Disagree
   [ ] Strongly disagree
4. Concentrate on improving the EMS professional knowledge base of our employees in order to improve customer service?

☐ Strongly Agree ☐ Disagree
☐ Agree ☐ Strongly disagree

5. Addresses justification of EMS budget requests to fund its programs?

☐ Strongly Agree ☐ Disagree
☐ Agree ☐ Strongly disagree

6. Design a positive, customer centered company attitude? (Company attitude is sometimes referred to as climate, or corporate culture.)

☐ Strongly Agree ☐ Disagree
☐ Agree ☐ Strongly disagree

7. Generate or creates customer loyalty?

☐ Strongly Agree ☐ Disagree
☐ Agree ☐ Strongly disagree

Comments:

Category: (Program/system improvement) Utilization of EMS customer satisfaction survey research data to improve customer service programs or systems.

Rialto Fire Department should utilize EMS customer satisfaction survey research data to create customer service delivery:

8. Standard Operating Procedures?

☐ Strongly Agree ☐ Disagree
☐ Agree ☐ Strongly disagree

9. Organizational policies?

☐ Strongly Agree ☐ Disagree
☐ Agree ☐ Strongly disagree

10. Organizational Procedures?

☐ Strongly Agree ☐ Disagree
☐ Agree ☐ Strongly disagree
11. Organizational Rules?

☐ Strongly agree
☐ Agree
☐ Disagree
☐ Strongly disagree

12. EMS customer service training programs?

☐ Strongly Agree
☐ Agree
☐ Disagree
☐ Strongly disagree

13. Identify new EMS programs needed?

☐ Strongly Agree
☐ Agree
☐ Disagree
☐ Strongly Disagree
Comments:

Category: (Listening to customers) Utilization of EMS customer satisfaction survey research data to listen to customer input in order to improve customer service delivery or follow-up.

Rialto Fire Department should utilize EMS customer satisfaction survey research data (Customer Feedback) to:

14. Identify EMS customer’s perceived needs?

☐ Strongly agree ☐ Disagree
☐ Agree ☐ Strongly disagree

15. Determine EMS customer perceptions about the customer service they received from my organization and/or its’ employees?

☐ Strongly agree ☐ Disagree
☐ Agree ☐ Strongly disagree

16. Discover or identify EMS customer service delivery opportunities to provide additional services to customers?

☐ Strongly agree ☐ Disagree
☐ Agree ☐ Strongly disagree

17. Discover or identify methods of how to enhance existing EMS customer service?

☐ Strongly agree ☐ Disagree
☐ Agree ☐ Strongly disagree

18. Identify and discontinue the delivery of EMS customer service components that are no longer pertinent or needed?

☐ Strongly agree ☐ Disagree
☐ Agree ☐ Strongly disagree

19. Enhance organizational learning about EMS customer service delivery?

☐ Strongly agree ☐ Disagree
☐ Agree ☐ Strongly disagree
20. Help define my organization’s EMS customer market more precisely?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

21. Identify hot button issues in which EMS customers hold our organization responsible. For example, issues which are most likely to generate a complaint to higher ups such as: Quality service, on time service, respect, courteous employees, product quality, professionalism, physical appearance of employees etc?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

22. Define EMS customer perceptions about your organization?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

23. Define EMS customer loyalty. (Community support, repeat customers, etc.)

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

24. Define EMS customer expectations of what they consider as quality customer service?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

25. Identify methods to satisfy EMS customers and exceed their expectations?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

26. Identify equipment or EMS customer service delivery defects?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

27. Identify trends in EMS customer service delivery and/or warning signals of problems, which are developing or on going?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree
28. Discover root causes to EMS customer service delivery problems?

☐ Strongly agree  ☐ Disagree
☐ Agree  ☐ Strongly disagree

Comments:

Category: Measurement (Measurement of Customer Service Delivery Components) Utilization of EMS customer satisfaction survey research data to measure customer perceptions about customer service delivery.

Rialto Fire Department should utilize EMS customer satisfaction survey research data (customer feedback) to measure:

29. EMS customer perceptions about service quality?

☐ Strongly agree  ☐ Disagree
☐ Agree  ☐ Strongly disagree

30. EMS customer satisfaction with service delivery provided?

☐ Strongly agree  ☐ Disagree
☐ Agree  ☐ Strongly disagree

31. Eliminate guesswork in identifying EMS customer service delivery problems or issues?

☐ Strongly agree  ☐ Disagree
☐ Agree  ☐ Strongly disagree

32. Performance indicators against EMS customer service benchmarks?

☐ Strongly agree  ☐ Disagree
☐ Agree  ☐ Strongly disagree

33. Discover cause and effect relationships between EMS programs and customer service perceptions?

☐ Strongly agree  ☐ Disagree
☐ Agree  ☐ Strongly disagree
34. To provide reliable, factual EMS customer service delivery data that evaluates customer perceptions about customer service performance?

☐ Strongly agree  ☐ Disagree
☐ Agree  ☐ Strongly disagree

35. Customer perceptions about product quality?

☐ Strongly agree  ☐ Disagree
☐ Agree  ☐ Strongly disagree

Comments:

Category: (Customer Follow-up) Utilization of EMS customer satisfaction survey research data to develop follow-up on customer comments, complaints, and suggestions.

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44. Utilizing EMS customer feedback and/or complaints to correct employee behaviors?

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- [ ] Agree
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45. Provide feedback to employees regarding EMS customer perceptions about their customer service?

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46. Identify employees providing excellent EMS customer service and reward or recognize their efforts?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

47. Identify training needs related to recurrent EMS problems and/or recurring customer service delivery problems?

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree
Final Comments:

If you wish to receive a summary of survey results, please indicate your desire below.

☐ Yes, I would like to receive a copy of the survey results.
   Note: Please write your email address here to receive a copy.

☐ No, I am not interested in receiving a copy of the survey results.
Appendix E

Utilization of Customer Satisfaction Survey Data

Introduction: My name is Jim Bruce. I am the Deputy Fire Chief at Rialto Fire Department. I am a student in the National Fire Academy Executive Fire Officer Program and I am conducting research project regarding how organizations apply customer satisfaction survey data to improve customer service. Your responses will be kept confidential unless you give me permission to share your answers. I am looking for your heart felt answers about the use of customer satisfaction survey data; not what you may think I want your answers to be. I will be asking you around 13 questions but if your answers to some questions cover others on my list, I may not ask those questions. In addition, this is a non-structured interview in that your answers may trigger follow-up questions that are not on my list.

You were chosen to be interviewed because….

Do you have any questions?

Opening question: How does your organization apply customer satisfaction survey data to improve customer service?

1. Does your organization utilize customer satisfaction survey data to create action plans to improve the customer service behavior or attitudes of your employees?
   a. Can you explain how you apply the data to make changes?

2. Does your organization utilize customer satisfaction survey data to improve the job skills of your employees?
   a. Can you cite any examples of this?

3. Does your organization utilize customer satisfaction survey data to improve the loyalty of your customers?

4. Does your organization utilize customer satisfaction survey data to improve or revise customer service SOP’s, Policies, Rules or Procedures?

5. Does your organization utilize customer satisfaction survey data to improve or change employee customer service training?

6. Does your organization utilize customer satisfaction data to add new programs, product choices, or delete products from your inventory?

7. Does your organization utilize customer satisfaction survey data to identify customers wants, desires or preferences and expectations?

8. Does your organization utilize customer satisfaction survey data to determine customer perceptions about your company?
9. How does your organization learn from customer satisfaction survey data?

10. Does your organization utilize customer satisfaction survey data to discover and correct service delivery problems?

11. Does your organization utilize customer satisfaction survey data to follow-up on customer complaints?

12. Does your organization utilize customer satisfaction survey data to follow-up on any of the following:
   a. Customer Complaints?
   b. Communicate care to the customer?
   c. Identify and track customer complaints?
   d. To reduce complaint numbers?

13. Does your organization utilize customer satisfaction survey data to follow-up on any of the following:
   a. To obtain customer feedback on employees?
   b. To identify employees who deliver excellent customer service?
   c. To use in employee appraisals?
Jim Bruce is the Deputy Fire Chief of Rialto Fire Department. He is a student in the Executive Fire Officer (EFO) Program of the National Fire Academy. He is conducting an applied research project that is examining how organizations utilize customer satisfaction survey research data to improve EMS service delivery. Your Department was selected for this project because of its location in Southern California. The purpose of this questionnaire is to determine how your fire department utilizes customer satisfaction survey data to improve Emergency Medical Service (EMS) delivery. The instructions for completing the questionnaire are on the form. Please return the completed questionnaire form in the self addressed stamped envelope by January 29, 2006. Your departments’ answers to the questionnaire will be kept confidential and will remain anonymous. However, I am willing to share the results of your agency’s’ questionnaire results if you desire. If you wish to receive a summary of the results of the survey, or an email copy of the final EFO research paper, please indicate your desire at the bottom of the survey form. I was hoping that this questionnaire would be completed by an employee responsible for customer satisfaction survey data collection and analysis. Thank you for your willingness to participate.

Sincerely,

Deputy Chief Jim Bruce
131 S. Willow Ave.,
Rialto CA 92376
909-421-7270
Email: jbruce@confire.org