



**HEADQUARTERS AIR FORCE MATERIAL  
COMMAND CUSTOMER RELATIONSHIP  
MANAGEMENT**

**Graduate Research Project**

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**HEADQUARTERS AIR FORCE MATERIAL COMMAND CUSTOMER  
RELATIONSHIP MANAGEMENT**

GRADUATE RESEARCH PROJECT

Presented to the Faculty

Department of Logistics Management

Graduate School of Engineering and Management

Air Force Institute of Technology

Air University

Air Education and Training Command

In Partial Fulfillment of the Requirements for the

Degree of Master of Art in Logistics Management

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June 2006

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## **Abstract**

The purpose of this research was to determine what was important to Air Force Material Command's (AFMC) external customers. Specifically, this project sought to answer how customer relationship management (CRM) initiatives varied in the private and public sectors, and to determine an appropriate means of capturing and measuring this type of data. This research was guided by a previous thesis effort, which had established a segmentation methodology of AFMC's existing external customers. The research question was answered through a comprehensive literature review, and the use of survey methodology. Over fifteen hundred external customers were given the opportunity to participate in the web-based survey. The research identified the need to further examine continual customer participation in the development of the ongoing CRM initiative.

The culmination of this effort was the development of a customer satisfaction survey to assist Air Force Material Command in determining what was important to their external customers. Recommendations on how to interpret the results and implement appropriate responses are discussed.

## **Acknowledgments**

I would like to express my sincere appreciation to my faculty advisor, Maj John Bell. His insight and guidance in the process have been invaluable. The journey was long, but the company was excellent. Many thanks!

Christopher B. Sullivan

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# **CUSTOMER RELATIONSHIP MANAGEMENT IN HEADQUARTERS AIR FORCE MATERIAL COMMAND**

## **I. Introduction**

### **Problem Statement**

To date, Air Force Material Command's Air Logistics Centers are operating autonomously with respect to their strategies on customer interactions and relationships. While well-intentioned, these independent efforts are at times disjointed, inefficient, and often ineffective. Each center views customer problems and issues differently, has different priorities, keeps different metrics and measures, and follows different agendas. AFMC has recently initiated a Customer Relationship Management (CRM) program to improve the products and services it provides to its customers. One of the command's primary objectives is to synchronize these various efforts into a cohesive and effective strategy. The purpose of this research is to help determine the status of AFMC's relationship with its customers. The overall intent is that this knowledge will help shape AFMC's direction for the implementation of its overall CRM strategy in order to create a more efficient and effective process.

### **Background**

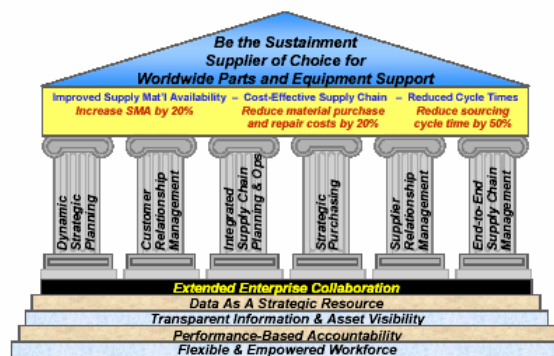
"A customer relationship management system, by its simplest definition, is a process to compile information that increases understanding of how to manage an organization's relationship with its customers. In this simple view, a CRM system consists of two dimensions, analysis, and action. More formally, CRM is a business strategy that uses information technology to provide an enterprise with a comprehensive,

reliable, and integrated view of its customer base so that all processes and customer interactions help maintain and expand mutually beneficial relationships” (Zickmund, 2003:3). This business strategy is not exclusive to the private sector. “Organizations that use CRM have long been raising the bar of customers’ service expectations in the private sector. Those expectations are now crossing over into the public sector. Government agencies are feeling the same pressures as their corporate cousins-both financially and from customers. Recognizing the necessity and opportunities presented by those challenges, government agencies are embracing CRM to conquer them” (Myron, 2004:26). AFMC is one of these government agencies that is working diligently to incorporate CRM into their business processes.

“The concept of CRM is new to the Air Force, but customer relationship management has existed as long as there have been buyer and sellers of goods and services. At present, CRM is being developed under the AF Purchasing and Supply Chain Management (PSCM) guidance. CRM will transform how customer service is done today; from a hodgepodge multilevel reactionary process, to a single customer view with access to key information under Expeditionary Combat Support System (ECSS). The objective of CRM will be to standardize processes that result in fulfillment of customer expectations and overall cost reduction. The end-state goals for CRM are to provide for collaborative issue resolution, responsive order fulfillment, and common and credible supply chain information” (Justice, 2006).

One of the driving forces behind AFMC’s continued push to implement CRM programs was an unfavorable GAO report, *'Air Force Depot Maintenance: Improved Pricing and Cost Reduction Practices Needed.'* This report was released in June of 2004,

and was critical of the sharply rising costs over the last five years. “The Air Force depot maintenance activity group in-house operations generate about \$5 billion in annual revenue. In doing so, the group operates under the working capital fund concept, where customers are to be charged the anticipated costs of providing goods and services to them. The group’s average price for in-house work almost doubled between fiscal years 2000 and 2004 from \$119.99 per hour to \$237.84 per hour. The Air Force Materiel Command has not been successful in its efforts to control costs. Although several promising initiatives are underway, the Command has not (1) developed a successful methodology for analyzing the reasons for the rapid material cost increase and (2) effectively utilized an established data repository for sharing cost-saving ideas among the three air logistics centers on process improvements and to demonstrate whether its cost savings initiatives have been successful” (GAO, 2004:3). This report confirmed that the AFMC’s supply chain management practices were in need of dramatic improvement. AFMC was aware that it needed to revamp some of its business practices, and had already initiated its Purchasing and Supply Chain Management (PSCM) process starting in 2001. One of the “pillars” of the PSCM initiative was customer relationship management.



**Figure 1. PSCM Vision, Goals, and Pillars (USAF PSCM Brochure)**

## **Research Question**

This research seeks to answer the question: What are AFMC's current external customer relationship management issues?

## **Investigative Questions**

Multiple questions are addressed in order to answer the research question:

1. Who are AFMC's internal customers?
2. Who are AFMC's external customers?
3. What is the appropriate methodology to segment them?
4. What is AFMC's leadership position on Customer Relationship Management?
5. Who does AFMC leadership view as their customer base?
6. How do CRM initiatives and incentives vary in the public and private sectors?
7. What is the best way to measure or capture this data for AFMC?
8. What is important to AFMC's external customers?
9. How can these customer issues be applied to AFMC CRM?

## **Proposed Methodology**

This CRM research effort was a joint project with Captain Damelsa White. It was conducted in three phases. In the first phase, she addressed the first three investigative questions using structured interviews conducted at the three Air Logistics Centers. These interviews, in conjunction with detailed review of current segmentation methodology helped determine who AFMC's internal and external customers are.

The second phase consisted of answering the fourth and fifth investigative questions by conducting a number of case studies from like organizations in industry, to see how they determined their segmentation reasoning and methodology. In addition to this, researchers attended industry-wide CRM conferences to assist in better comprehension of the industry initiatives, and to seek CRM best practices.

The third phase of the research is the focus of this project and addresses the sixth through ninth investigative questions. The literature review answers the sixth question, and is instrumental in writing and administering a survey designed to determine what the key issues are with AFMC's customers. The customer survey answers investigative questions seven and eight. The survey is web-based, with prospective respondents being identified parties determined by earlier research by Captain White. The decision to survey was influenced by AFMC precedence in using survey methodology to determine existing customer satisfaction levels, and the designed survey was built using existing surveys provided by AFMC. The overall intent is to correlate the survey answers into tangible issues that can serve as the foundation for AFMC's CRM strategy for the future. This will be used to answer investigative question nine.

### **Limitations**

One of the biggest limitations of this research is that AFMC is already moving forward with their CRM initiatives without having first developed a baseline of their customer's satisfaction levels. AFMC identified Warner Robins as their test bed for CRM initiatives, but simultaneously funded this research to determine who their customers are and what is important to them. This appears to be a possible disconnect in their philosophy. On the one hand, they are taking an academic approach, with an

objective, outside research team (Sullivan/White). On the other hand, they are moving forward with programs, without a comprehensive understanding of who their customers are and what they need. Warner Robins has already made attempts to measure customer satisfaction, and they have run into some challenges. First, they have identified the fact via “Lessons Learned” that they never took a baseline metric to see how their customers felt initially. This oversight will provide future challenges to measuring the progress of their programs, since they don’t have a specified starting point for comparison. Secondly, they have defined their customers as people that call their customer service centers, which constitute their external customers. This approach does not incorporate inputs and insights from internal customers.

Another limiting factor is that existing AFMC CRM initiatives appear to be focused on the call center. Warner Robins has already established a CRM office, and moved personnel in order to better their call center capability. Initial feedback from this ALC is identifying Information Technology (IT) as one of their greatest limiting factors (LIMFACs), and an area for future spending. Contrary to this, the literature review seems to indicate AFMC may have the cart before the horse, because strategy should precede action. From a change management perspective, change should be prefaced by leadership buy in, and deliberate efforts to facilitate overall organizational change prior to implementation of new ideas and methods. Rigby’s article on the perils of CRM implementation cites “87% pinned the failure of their CRM programs on the lack of adequate change management” (Rigby and others, 2002:3). Time will tell if this ends up hindering AFMC’s CRM implementation. One of the key points of this research is that CRM should not be considered synonymous with technology improvement. While it is

true that efficiency and IT connectivity are integral components, the driving factor should be what the customer wants. To date, it appears that AFMC and its Air Logistic Centers (ALCs) are acting and making decisions based on experience and intuition, while possibly foregoing needed customer input and feedback.

The third limitation that has been identified is that AFMC was very directive in the methodology (survey) they wanted in determining their customer relationship issues. While it is advantageous to have the direction, surveying is a rather precise science, and has the potential to be misleading if conducted incorrectly. According to one expert, “there’s a fair bit of crappy market research out there. Somebody’s whose taken one statistics course doesn’t cut the mustard. The person on staff who is looking after survey results has to have a good understanding of samples and how to get them, or how to prepare the survey instrument” (Collision, 2003:14). To mitigate this inexperience, it will be essential to convey the limits on sophistication of the survey methods and detailed analysis when addressing AFMC, so that they have realistic expectations.

## **Assumptions**

The following are some of the initial assumptions going into the research:

1. The survey response rate will be adequate to provide useful data.
2. Captain White has identified the appropriate segments.
3. The segmentation analysis will be instrumental in guiding AFMC’s CRM strategy development and implementation.

## **Summary**

This chapter laid the foundation for how the research topic was chosen, and detailed the pertinent facts behind AFMC's efforts to implement CRM. It presented the problem statement, the overarching research question, and the specific investigative questions that will be essential in addressing the research question. Finally, it laid out the broad strokes of how the research team will address answering these questions. This chapter will be followed by an extensive review of the relevant literature that surrounds public sector CRM.

## **II – Literature Review**

### **Chapter Overview**

This chapter reviews various aspects of the literature surrounding this research. It begins with a restatement of what CRM is in broad terms, and is followed by an explanation of the differences in CRM initiatives in the public and private sector. Following this, a brief case study of a successful CRM program in the public sector is included. The paper then addresses how an organization implements CRM programs. This is followed by a section discussing popular means of measuring the success of public sector CRM initiatives. Finally, there is a review of the genesis of the AFMC efforts and initiatives to date.

### **What is CRM?**

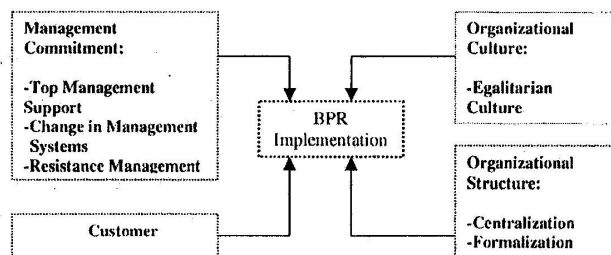
According to Zickmund, “a customer relationship management (CRM) system, by its simplest definition, is a process to compile information that increases understanding of how to manage an organization’s relationship with its customers. In this simple view, a CRM system consists of two dimensions, analysis, and action. More formally, CRM is a business strategy that uses information technology to provide an enterprise with a comprehensive, reliable, and integrated view of its customer base so that all processes and customer interactions help maintain and expand mutually beneficial relationships” (Zickmund, 2003: 3).

This definition was chosen from a myriad of others because of its breadth. It focuses on the concept of a strategy that raises awareness (analysis) of the customer base,

and a plan (action) to improve the relationship. It captures the true intent of CRM by not allowing the concept to be oversimplified. The CRM industry is replete with varying opinions and ideas on what CRM is, but many are too myopic in that they are narrowly focused on results like retention, or loyalty, or gaining market share. CRM is more than a buzzword, and it is not a panacea for all that ails the interactions between customer and provider.

### Academic paradigms

In the course of the literature review, the AFIT research team examined three recent academic paradigms and constructs surrounding CRM implementation. The first examined “organizational factors that affect the implementation of business process reengineering (BPR) when applying specific information technologies” (Ahadi, 2004:1). The study tested nine different factors, and found that six of the factors “were positively associated with successful implementation of BPR” (Ahadi, 2004:1). The positively related factors were top management support, change management, centralization of decision making, formalization of procedure, organizational culture, and customer involvement. Ahadi organized these six factors into four groups of “organizational enablers” (Figure 2) that he determined were critical to BPR implementation.



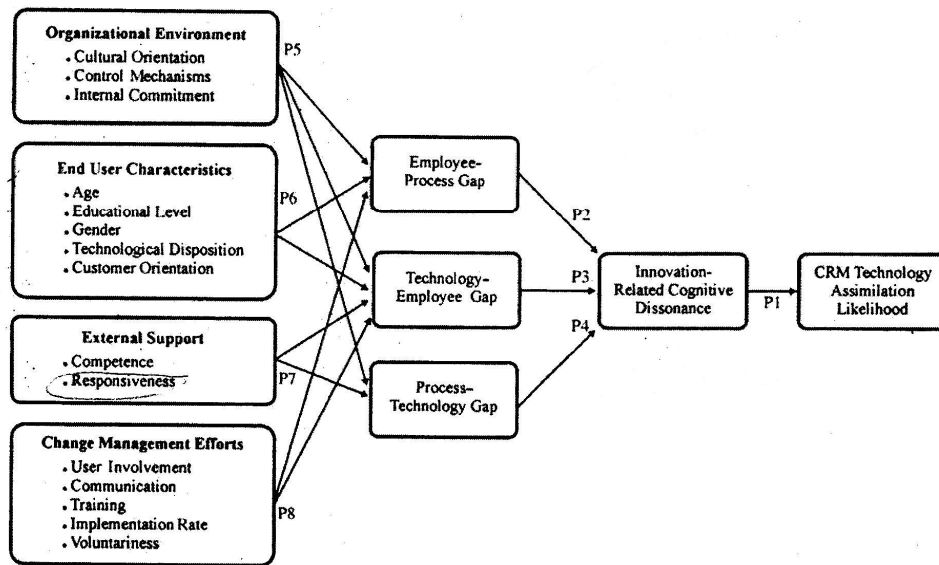
**Figure 2. Factors Affecting BPR Implementation (Ahadi: 2004:8)**

For the purposes of the AFMC research, focus was directed on the customer group as an “organizational enabler.” Ahadi further defined customer involvement to include the following (Ahadi: 2004:10):

1. Customers being involved throughout the BPR project
2. Information gathered from customers drives the BPR project
3. The BPR project satisfies customer needs
4. Gathering requirements from customers before the BPR project beginning

These four areas were instrumental in guiding the development of the survey that was administered to AFMC’s external customers.

The second academic model that was analyzed dealt with the theory that “the relative success of CRM initiatives were heavily influenced by the interplay between three key organizational elements: people, processes, and technology. People are those responsible for executing firm’s day-to-day CRM tasks, processes specify how CRM tasks will work together to help create value for the firm and its customers, and technology serves to either help employees execute CRM tasks or automate the tasks altogether” (Zablah and others, 2004:279). The research resulted in a conceptual model (Figure 3) “that purports to explain why there is variability in end user acceptance of CRM technology by explicitly considering the interplay between people, processes, and technology within the context of CRM initiatives” (Zablah and others, 2004:281).



**Figure 3. The Cognitive Dissonance Model of Organizational Innovation (Zablah and others, 2004: 284)**

This model was also utilized in the survey development, with two significant inputs. The first was the relationship between customer orientation (an end user characteristic) and overall satisfaction. Zablah defined customer orientation as “the employee’s willingness to undertake the necessary steps to satisfy individual customers’ needs and build mutually beneficial relationships with them” (Zablah and others, 2004:288). The designed survey attempted to ascertain that relationship, by asking the external customers about concepts such as customer service representatives being friendly, helpful, and being able to identify with the customer’s issue. The second input was found in the External Support section, with survey questions derived to determine the external customer’s views on the competence and responsiveness of the Customer Service Center. “Empirical evidence suggests that that implementation process is enhanced by the presence of an implementation partner, especially when such a partner possesses strong technical, communication, and project management skills” (Zablah and

others, 2004:289). Additionally, “research on CRM has identified a positive relationship between the perceived responsiveness of the implementation team and the user’s perception of configuration correctness” (Zablah and others, 2004:289).

The third and final academic construct that was reviewed was a paper on change management by Professor Sudhir Kale. “Change management is the process of developing a planned approach to desired transformations in an organization” (Kale, 2005:57). Kale examined CRM initiatives in the private sector, specifically, casinos. The key takeaway from this research was the importance of tying “performance assessment measures” to “customer-focused behaviors on the part of everyone with the organization” (Kale, 2005:63). In terms of the AFMC project, this article is instrumental in bridging the measurement of existing customer satisfaction with guidance on how to improve on inputs provided by the external customer.

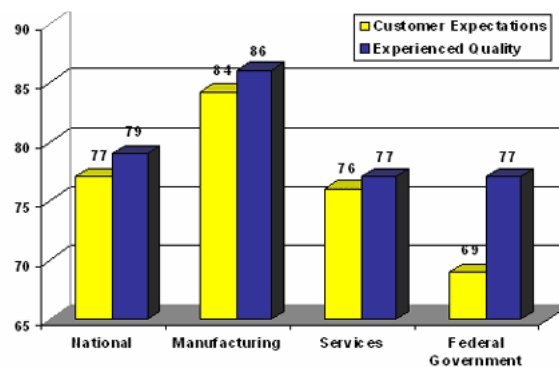
### **Why is the public sector getting involved in CRM?**

The popularity and acceptance of CRM in the private sector is an easy concept to grasp. The motivation is a combination of survival and prosperity, and its success or failure can be readily tangible (i.e. revenue, market share, customer retention, etc.). In light of that, how does CRM fit a government or public sector model? Skeptics have argued that the public sector effectively has a captive audience. In private sector, if the consumer is unhappy, they can “vote with their feet or checkbook”, and choose a new service provider. With public sector services, leaving may or may not be an option. With that in mind, what is the incentive for the public sector to buy into CRM? Why

would any public entity spend more money to improve services when they were the only game in town? How would you measure the success of the program you implemented?

Rising consumer expectations have led to a demand for improvement across the board in government agencies. “Communication with government has traditionally been all one way – (government) blasting their messages and rarely doing much listening. Now the Internet is transforming the relationship. One big message of advanced communications technology is that the service delivery gap between the public and private sector is getting wider” (Collision, 2003:14).

Fornell argues that there is not necessarily a large difference in the quality of customer service between public and private sectors, but there is a lower expectation of the quality of service from government agencies (Figure 4). “Citizens have generally low expectations of public sector services, much lower than their expectations with the private sector. The reason behind this is difficult to determine, but possibly emanates from American’s general skepticism towards the government” (Fornell, 2005). With that in mind, addressing the perception of lower quality service can also be seen as a cause for public sector CRM initiatives.



**Figure 4. Citizen Expectations of Civil Services (Fornell, 2005)**

“Government agencies are feeling the same pressures as their corporate cousins – both financially and from customers. Recognizing the necessity and opportunities presented by these challenges, government agencies are embracing CRM to conquer them. In fact, industry pundits maintain that the biggest growth area in CRM over the next three years will be the public sector” (Myron, 2004:27). This notion is supported by the amount of money being spent by government agencies on CRM initiatives. Barton Goldenberg, president of CRM consultancy ISM, expects the government sector to spend five billion dollars over the next three years, with \$2 billion in CRM software, and the other \$3 billion in CRM services (Myron, 2004:27).

“Today, major software and consulting companies are trying to sell governments on big CRM packages, but they are often simply repackaged versions of their commercial software. Many government departments are not yet ready to couple sophisticated modern software with their aging legacy systems. Perhaps more importantly, few departments have even started the process of recreating themselves as organizations that exist to serve clients” (Collision, 2003:14).

### **Case study of Public Sector CRM in action**

A pertinent example that captures a lot of these concepts is the city of Baltimore’s recent CRM initiatives. In January of 2000, new Mayor Martin O’Malley was faced with a city that had 11% of its population leave in the last decade. As the people left, so did their incomes and tax revenue. Services within the city became more limited, as the city planners were forced to deal with an ever shrinking budget. To gauge the extent of the

problem, the Mayor asked three different water utility managers to “explain the way in which the same citizen service request would be resolved. To his dismay, he got three different answers” (Myron, 2004:28). Citizens that were calling for service “were often sent on wild goose chases, getting transferred up to seven times before speaking to the right person.” “To make matters worse, there was no way to track service requests, so if a citizen called a month later to check the status of a request, he would often have to repeat every detail.” (Myron, 2004:28). This type of inefficiency resulted in an unhappy consumers and constituents, who would then write complaints or call in concerns.

The solution to this problem was found in contracting with Motorola to help the city implement an efficient and effective call center. “CitiTrack” was born, under the catchy marketing idea of “One Call to City Hall” campaign. “CitiTrack” was a work order tracking system designed to incorporate existing call centers with web based platforms to allow people to track the status of their requests. “Today, service requests across all agencies are recorded, tracked, and managed.” Complaints are assigned a service number, so people can check their status online, or when they call the city call center, the representative can pull the status of the project based on the service number (Myron, 2004:29).

This new system allowed the mayor of Baltimore to draw specific information about the performance of each of his departments. This new insight allowed him to determine where the choke points were, and where throughput was lacking. Armed with this information, Mayor O’Malley was able to replace ineffective personnel who were not performing up to standards. Additionally, the city estimates annual savings of \$13.2 million dollars in reduced overtime, elimination of wasteful and/or redundant programs,

and increased productivity. These savings more than offset the start up costs of \$2.5 million, and an annual operating cost of \$4.6 million. The city of Baltimore was also able to take its CRM services online, shown in Figure 5. Finally, for its efforts and successes, Baltimore won the “Garnter’s 2003 CRM Excellence Award, which represents the first time a government agency has won the award in the large enterprise category” (Myron, 2004:29). Baltimore’s successes serve as positive examples for AFMC with respect to taking on the challenges of creating a CRM based approach to interacting with their customers.



**Figure 5. Baltimore’s CRM program home page (Baltimore, 2006)**

### **How do you implement CRM in an organization?**

The reason for choosing that particular CRM definition was that it identified CRM as a process, or a system, and not just a simple program. Indeed, implementing CRM is synonymous to changing the culture and mindset of an organization. There are numerous

elements of change management philosophy intertwined in the implementation of any CRM program. With that in mind, four examples have been provided to demonstrate varying approaches to tackling the initiating of a CRM program. Some of the approaches represent “schools of thought” while others are examples from similar public organizations that are trying to implement a CRM orientation within their organization.

The first example comes from the University of Texas at Austin, and is part of their “Survey of Organizational Excellence.” UT argues that “strong and innovative organizations” are based on successfully understanding three key ingredients of an overall strategy. They say that “a convenient way to think of the strategy for success is to picture a three-leg stool. The stool represents the organization supported by three legs, which symbolize these key ingredients. Each leg has very separate and distinct attributes and each is critical to the survival of the organization. The legs of the stool are visionary leadership, internal data from employees and external data from the customers of the organization” (UT Austin, 2005:2). Additionally, the Survey of Excellence recognizes that a “process orientation is very important in settings in which the customer is not the one who 'buys' the service and thus provides the most important feedback about quality and acceptability of the service. The process orientation allows an organization to look at what the contributions of all departments are in satisfying the multiple customers. The process orientation forces an organization to examine the internal processes that contribute to the whole” (UT Austin, 2005:2).

The organization’s customers provide critical data that is instrumental in developing an assessment of the current environment. This assessment is used to establish a baseline for the current standard of service and satisfaction. The Survey of

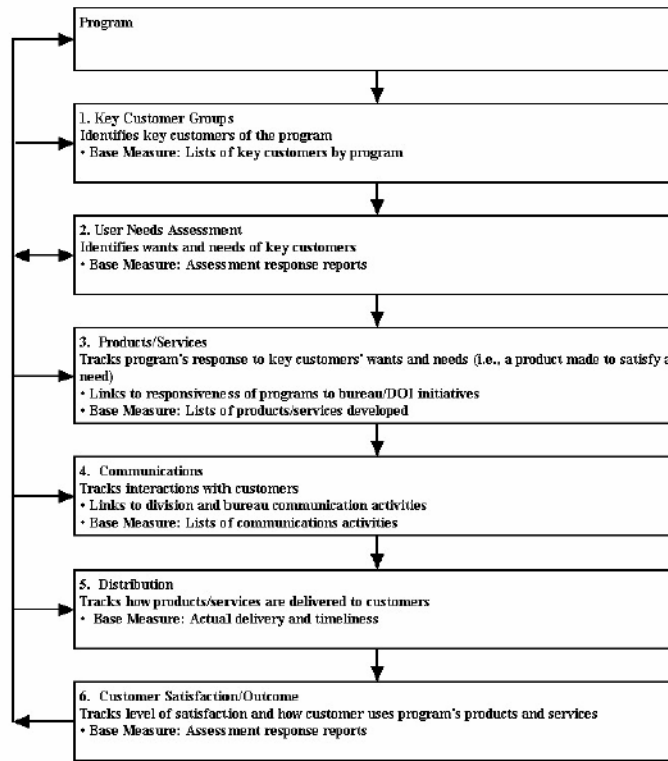
Excellence identified the following “steps in assessing customer satisfaction:” (UT Austin, 2005:5)

1. Develop a listing and categorize your customers. This will include:
  - a. External customers-those that use your services (directly and indirectly)
  - b. Internal customers-all organizations have components that serve other components. These are internal customers.
2. Suppliers-traditionally you are a customer to them but by thinking of them as a customer, and of the information and access they need to meet their contracts with you, you will gain dividends in your own services.
  - a. Categorize your products or services.
3. Determine what needs and wants your services or products meet.
4. Determine what sets your service apart from others?
5. Establish a customer orientation to include:
  - a. Customers should be encouraged to tell you about any problems,
  - b. Customers should know their rights and responsibilities from the beginning,
  - c. Customers should know how to take advantage of their rights,
  - d. Customers should feel in control.
6. Customers should know precisely who to contact
7. How well are you using information technology to increase customer satisfaction?

Once the organization has established a baseline, it has a better understanding of its current standing, and can use this as a cornerstone of its strategy for CRM implementation and improvement.

The second example of a CRM implementation plan is illustrated at Figure 6. It came from the United States Geological Survey (USGS), which is part of U.S. Department of the Interior.

### Customer Measurement Framework



**Figure 6. Customer Measure Framework (USGS, 2003:134)**

As part of its commitment to customer service, the USGS formed a Customer Service and Research Team in 1997, with the charter of “defining customer service from a bureau perspective, providing a future vision, identifying pilot projects for customer satisfaction surveys and customer service enhancements, and integrating customer service standards and measures and strategic planning documents” (USGS, 2003:133). In 1998 the “USGS piloted the Customer Measurement Framework (CMF) Model to determine how to better capture, analyze, and apply customer data and feedback. The CMF consists of six steps designed to respond to customers” (USGS, 2003:133). This framework is relevant to AFMC’s situation because it provides an example of a similar public sector group using customer segmentation, followed by customer needs assessment in their overall CRM

implementation.

The third example of how a public sector agency approached CRM comes from the Wisconsin Department of Transportation. Faced with balancing budget constraints against the needs of its customers, the Wisconsin DOT brought in a consulting group in 2001 to develop an instrument to measure public satisfaction with their products and services (Ley, 2002:8). The “department recognized the importance of understanding customer satisfaction levels with services. Accordingly, the Department’s executive management approved a project to develop a department-wide system for measuring general public customer satisfaction, along with the mechanism for collecting, analyzing and reporting on this measure” (Ley, 2002:8). The department listed the following (Figure 7) as the project goals:

- 1) Identify and segment the customer groups that make up the general public.
- 2) Compile an inventory of existing measures of customer satisfaction.
- 3) Develop specific measures of performance in the area of customer satisfaction to facilitate in the long-term a better understanding of customer satisfaction trends and to provide decision-makers with a consistent source of reliable customer information.
- 4) Develop a plan for integrating customer satisfaction data into department-wide decision making and performance measurement.

**Figure 7. Wisconsin DOT Customer Satisfaction Project Goals (Ley, 2002:8)**

The final example of how to initiate a public CRM program comes from a multinational management consulting group, Accenture. Accenture has been quick to realize the potential market for CRM implementation within the public sector, and has derived an action plan to help guide government agencies through the process. As a baseline for assessing an agency’s CRM readiness and capabilities, management should ask itself the following ten questions (Shine, 2005:20):

1. Do we have an explicit strategy for improving the way in which we interact with the customers (citizens and businesses) with which we deal?
2. What interaction channels are most cost effective in enabling us to deal with the needs of our customers? Is this the same from our customers' perspective?
3. What information do we use on the characteristics and needs of our customers to ensure that we offer the most appropriate service and interaction channel?
4. Do we provide consistent service and consistent responses to customers no matter what interaction channel they choose?
5. What are our key weaknesses in providing a high level of customer service? Consider:
  - a. Lack of readily accessible, consistent and comprehensive information on customers
  - b. Inadequate technological support
  - c. Absence of a customer service culture
6. Has the introduction of new channels (e.g. IVR, internet) been part of an integrated approach to dealing with our customers, or are these stand-alone silos?
7. What information do we collect and what metrics do we use to monitor customer service, customer costs and customer outcomes? How is this information used to redesign and improve our dealings with customers?
8. What are the barriers that we face in improving customer service? How can these be overcome?
9. What steps have we taken to learn about improving CRM from other government agencies or from the private sector?
10. How can we best take stock of our current position, develop a customer service vision and prepare a plan to improve customer service?

In comparing these four models, common elements can be found in all of them.

Despite representing different perspectives, all four recognized the importance of having a vision for the organization, to serve as a focal point for a better relationship with their customer base. Additionally, all of the varying approaches stressed the need to have an overall strategy or plan to guide the organization towards the stated vision. Finally, all

four examples identified the need to understand that there are different levels and types of customers (segmentation), and that it was essential to have an understanding of your baseline satisfaction prior to making changes. These common elements were instrumental in guiding the research used to address the investigative questions. AFMC, being a like public entity, can draw from these examples in forming and tailoring their own CRM implementation strategy.

### **How do you measure customer service in the public sector?**

One of the earlier questions was how to measure the effectiveness or success of a public sector CRM program. One method that has been proposed is the American Customer Satisfaction Index (ACSI), which was produced by the Stephen M. Ross Business School at the University of Michigan, in partnership with the American Society for Quality (ASQ) and the international consulting firm, CFI Group (ASCI, 2006). “Established in 1994, the ACSI is a uniform and independent measure of household consumption experience. A powerful economic indicator, the ACSI tracks trends in customer satisfaction and provides valuable benchmarking insights of the consumer economy for companies, industry trade associations, and government agencies” (ACSI, 2006).

This group started with a model for the private sector (Figure 8), and then modified it in 1999 to incorporate the nuances of public sector relationships. “The model used to measure satisfaction with government agencies is identical to the private-sector model, except the component in the private-sector model concerning price and “repurchase”

intentions has been adjusted for the public sector. This occurs in the "outcomes" component of the model (Figure 9)" (ACSI, 2006).

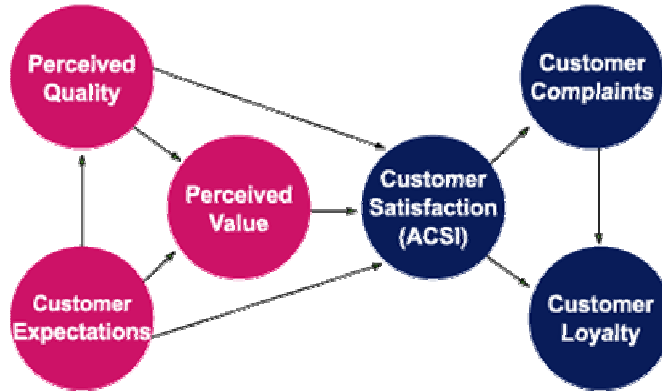


Figure 8. ACSI Private Sector Model (ASCI, 2006)

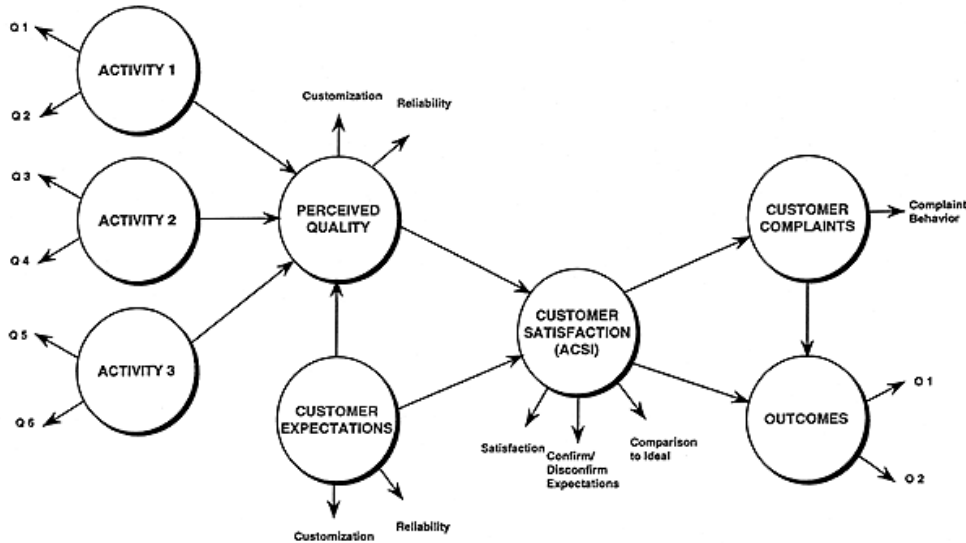


Figure 9. ACSI Government Model (ASCI, 2006)

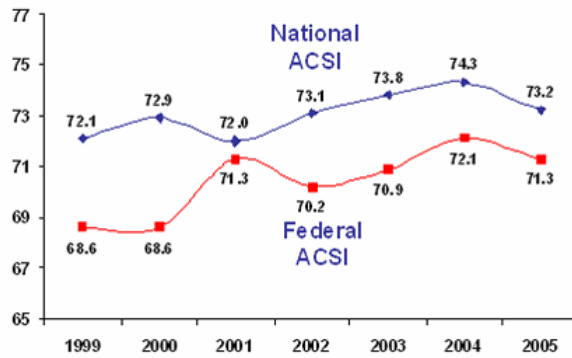
### ACSI Methodology

The Index “is an indicator that measures customer satisfaction. It's based on modeling of customer evaluations of the quality of goods and services that are purchased.

The methodology combines survey input with cause and effect modeling to produce indices of satisfaction, and the drivers and outcomes of satisfaction. The model is a set of causal equations that link customer expectations, perceived quality, and perceived value to customer satisfaction. In turn, satisfaction is linked to consequences as defined by customer complaints and customer loyalty – measured by price tolerance and customer retention” (ACSI, 2006).

Proponents state that the ACSI methodology assists in identifying casual relationships, which in turn can be used as a predictor of future customer behavior. “It serves as a strategic business tool for gaining competitive advantage and creating shareholder value through investments in quality and customer satisfaction. It is a predictor of consumer spending and corporate earnings” (ACSI, 2006).

Originally, the Index was designed to “provide useful information on quality to complement present measures of the U.S. economy. Prior to the development of ACSI, a uniform national measure of quality had been missing from the list of economic indicators” (ASCI, 2006). This uniform score is one of the most powerful aspects of this model, and an example is shown at Figure 10. The figure graphically depicts a comparison of national (private sector) ACSI scores, against an average public sector (Federal ACSI) value. This information is useful because it shows trend information as well as an annual comparison of differences in satisfaction levels. It provides a baseline against which to “measuring customer satisfaction and benchmarking your agency scores across government and industry. Benchmarking can be a powerful tool to bring your agency programs in line with or exceed agency or industry-wide ACSI scores in similar areas” (ASCI, 2006).



**Figure 10. National and Federal Government ASCI (ASCI, 2006)**

Some of the areas of comparison include customer expectations, perceived quality, customer satisfaction, customer complaints, customer loyalty and customer retention. The lesson for AFMC conveyed by this model is that various federal organizations are using a standardized format for measuring satisfaction. This is an important consideration in this research effort as well as future research efforts, since sizeable resources are being allocated to derive measurements that may or may not be comparable to like organizations.

### **The genesis of CRM within AFMC**

The CRM initiative within AFMC is part of a much larger Purchasing and Supply Chain Management (PSCM) movement that started in February 2001. Supply chain management has about as many different definitions as customer relationship management, but with AFMC the common definition is “the integration of purchasing and supply processes into a single end-to-end enterprise process that reduces supply chain operating costs and improves Warfighter readiness” (Savoie, 2003:8). The PSCM movement grew out of a need to rapidly reduce cost, while at the same time improve efficiency. At the time, sustainment costs were impeding the modernization of the Air

Force, and sustainment processes could not keep up with the needs of the emerging Expeditionary Air Force. Scott Correll, Chief, Logistics Contracting at AFMC headquarters, details the infancy of the initiative in this interview excerpt with Purchasing Magazine. “When we began, basically we didn't know PSCM. We hired IBM to partner with us. One of the things we did was take our team of 60 people from across AFMC and immerse them in leading best commercial practices. Also, we benchmarked with three commercial airlines. Specifically, we felt that they were in similar businesses [spare parts and repair], were using commodity councils, and that we could learn much from their successes” (Correll, 2004:1).

Following this, then AFMC Commander Gen. Lyles initiated an Integrated Product Team (IPT) to investigate the implementation of a PSCM organization across the AFMC in July of 2002. Based on their initial finds, he directed the IPT to “to re-engineer processes first, then develop the organizational construct to enable the processes” (Youngman, 2003:15). The IPT produced the following “roadmap” (Figure 11) which became the framework to guide AFMC through this transformation.

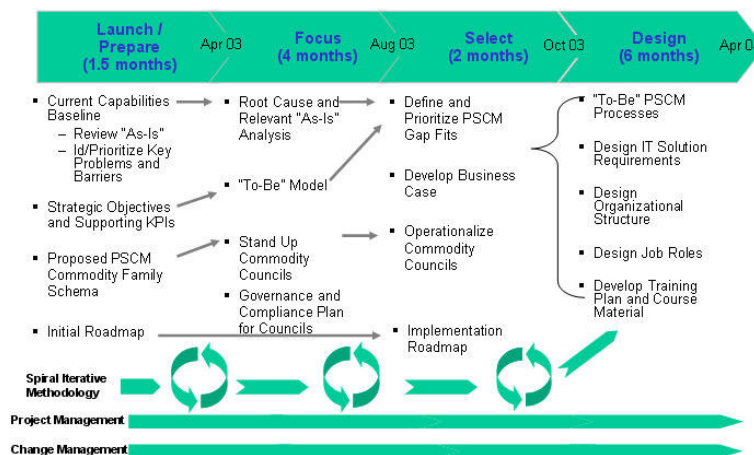
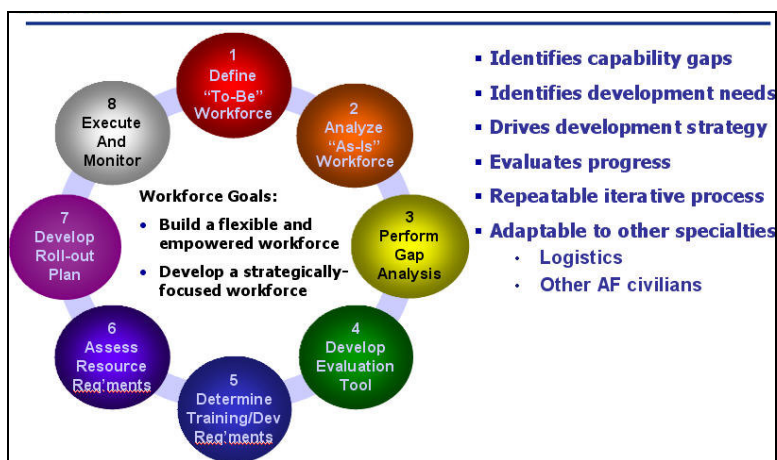


Figure 11. PSCM Transformation Roadmap (Youngman, 2003:16)

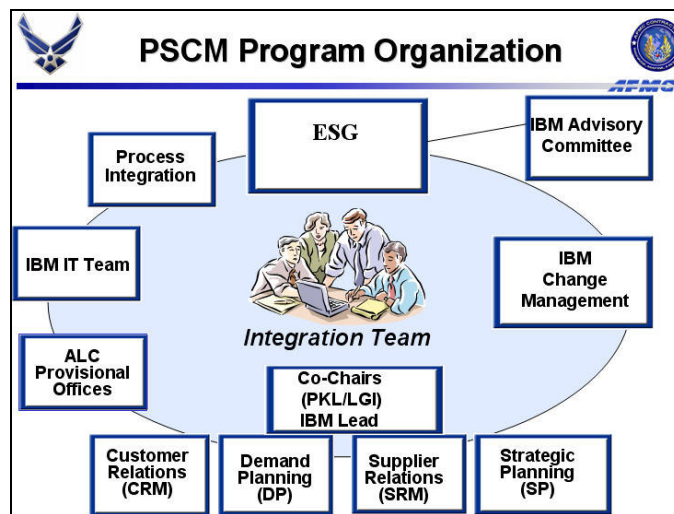
One of the more critical aspects to pull from this figure is the overarching importance of “change management” throughout the entire process. AFMC defines change management as “The continuous process of orienting the workforce to ongoing changes, easing the transition and evolving AFMC to a continuous improvement mindset.” (Blair, 2004:17). The benefits of this successful change management processes include mitigation of risk, reducing resistance to change, easing the overall transition, and facilitating the deployment of new programs and ideas.

One of the other key deliverables from this IPT was a vision of the overall strategic development process that would lead AFMC through the PCSM process. Note that early on there was a solid understanding that there would have to be an honest and accurate assessment of current capabilities and resources (identify development needs), in order to determine the “gap analysis” (see Figure 12). In other words, in order to figure out how far they had to go, AFMC had to have a candid understanding of their starting point (baseline).



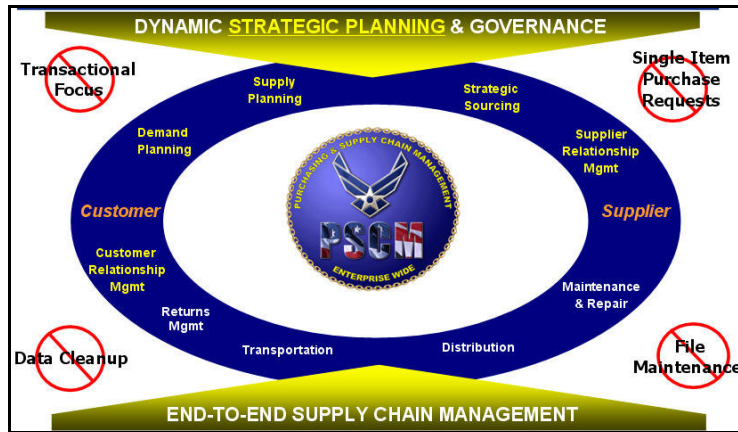
**Figure 12. Strategic Development Process (Koenig, 2004:7)**

A separate organization construct was proposed to guide AFMC through the PSCM transformation (Figure 13). Note that this is the first instance where CRM is identified as a key component of the overall transformation effort. This team was directed to “assess the current process we have in place to provide a face to our respective customers and then develop a process that enhances and improves our customer support” (Youngman, 2003:17).



**Figure 13. PSCM Program Organization (Youngman, 2003:17)**

Figure 14 also sheds light on the role of customer relationship management in relation to overall PSCM business model. One of the more important takeaways is the strategic emphasis on the supply chain transformation in general, and a divergence from traditional transactional focus.



**Figure 14: Integrated PSCM Business Model (Koenig, 2004:5)**

Based on this better understanding of the relationship of CRM in the context of PSCM, we can focus on some of the CRM initiatives within the command. In September of 2004, Warner Robins Air Logistic Center (WR ALC) became the site to test and implement two of four identified standardized customer service processes. These two processes were managing customer relationships/collaboration, and managing inquires/providing support. In order to do this, a CRM test Service Center was established to specifically validate the following (Blair, 2004:12):

1. Confirm CRM processes provide value at reduced cost
2. Determine customers
3. Determine if resource plans support performance targets
4. Document test results and lessons learned for command-wide deployment plan
5. Monitor acceptance and results

This test was conducted using the C-130 platform because it was a representative weapon system, widely deployed, that crossed ALCs, and had a manageable scope. Throughout

the test, Customer Service Center personnel collected data (to include a customer satisfaction survey) and captured lessons learned (Blair, 2004:12).

Some of the key results of this test were briefed to the command (Figure 15), breaking it down in terms of where the command was and the desired direction of future efforts.



## **Key Results of C-130 Test**



- **Where we are today in customer service**
  - **Fragmented and overlapping services**
  - **No single point of entry for customers**
    - **Confirmed by customer feedback survey**
  - **No segmenting of customers—Internal/External**
    - **Essential for support and collaboration**
    - **Essential for responding to customer issues**
  - **No formally recognized communication process**
    - **Causes customer frustrations**
    - **Lack of confidence in process**
    - **Responsibility for follow-up resides with customer**



## **Key Results of C-130 Test**



- **Where we want to be in customer service**
  - **One stop shop—multiple customer service tasks**
    - **24/7 coverage—not currently done by IMs**
    - **Resolve customer issues**
    - **Manage by exception (proactive result oriented)**
  - **Identify the customers—Internal/External**
    - **Focus on external customer—majority of workload**
    - **Best practice “customer view”**
  - **Establish formal communication process/plan**
    - **Train customers on process/self help sources**
    - **Track issues to completion—closed loop**

**Figure 15. Key Results of C-130 Test (Sundaram, 2005:3-4)**

Additionally, one of the most telling “lessons learned” from the outbrief was “we should have invested in base-lining current state of customer service” (Green, 2005). That statement, in conjunction with the recognition that they needed a better understanding and segmentation of their customers were key drivers in the AFMC CRM team initiating a collaborative effort with AFIT to further research these areas.

Captain White used these results as the foundation of her thesis, which focused on the segmentation of AFMC’s external customers. White used FY05 data the Customer Service Center (CSC) database records from each ALC to identify the command’s external customers. Review of these databases revealed a “consistent data elements” consisting of similar document numbers and dates of requisition (White, 2006). White determined that the most appropriate segmentation model would consist of three elements: recency, frequency, and location. Combinations of these three segments resulted in twelve distinct segments (Figure 16) for the command to focus and direct their CRM efforts.

Segment	# of customers	% of total customers
More Recent, High Frequency, Deployed Location	4	0.74%
More Recent, High Frequency, Non-deployed Location	50	9.27%
Less Recent, High Frequency, Deployed Location	0	0%
Less Recent, High Frequency, Non-deployed Location	0	0%
More Recent, Medium Frequency, Deployed Location	4	0.74%
More Recent, Medium Frequency, Non-deployed Location	77	14.28%
Less Recent, Medium Frequency, Deployed Location	0	0%
Less Recent, Medium Frequency, Non-deployed Location	0	0%
More Recent, Low Frequency, Deployed Location	19	3.52%
More Recent, Low Frequency, Non-deployed Location	255	47.30%
Less Recent, Low Frequency, Deployed Location	14	2.59%
Less Recent, Low Frequency, Non-deployed Location	116	21.50%
	<b>539</b>	<b>100%</b>

**Figure 16. AFMC’s External Customer Segmentation (White, 2006:81)**

Once the segmentation model was built, research was directed on how to identify what was important to these customer segments. The four previous examples of public sector CRM implementation demonstrated common themes in that they all recognized the importance of assessing the needs of the user and the significance of measuring existing customer satisfaction. These common elements, paired with AFMC's existing preference towards survey methodology, made the decision to build and administer a more comprehensive survey the most appropriate means to address their CRM needs and determine current customer satisfaction levels.

## **Summary**

This chapter reviewed the relevant literature surrounding current CRM initiatives. It began with a broad overview of what CRM is, and provided key terms and definitions. This was followed by an explanation of the differences in CRM initiatives in the public and private sector, and included a case study that demonstrated these concepts in action. Four different implementation plans used in the public sector were covered, followed by a section on measuring customer satisfaction. The chapter concluded with a brief chronology on AFMC's initiatives and efforts to date. Together, these parts formed the foundation for the decision to use a comprehensive survey to identify AFMC's external customer needs, and to measure their current satisfaction levels.

### III – Methodology

#### Chapter Overview

The purpose of this chapter is to review the process which led to the selection of a survey methodology as the technique to answer the research question. First, there is an overview of the various types of instruments that are available. Then, the discussion focuses on why a survey was chosen. Following this, the devised research plan is reviewed. Finally, an examination of the data format and proposed analysis of the data collected from the survey are given.

#### Research Paradigm

In determining the appropriate research paradigm, an initial look was taken at the various options. The overall model used to compare various approaches was Swartz’s Research Evolution Model. (Figure 17) This drove the researcher to examine what type of data would be available, and what the intended use of the said data. The research

Objective/Phase	Paradigm	Logic/Theory	Hypotheses	Data	Method	Causality
OBSERVATION “Facts”	Qualitative “Descriptive”	Inductive T Building	“Presence of A”	Field or Natural Setting	Pre-Experiments	CONSTRUCT VALIDITY - Convergent - Divergent
CATEGORIZATION “Characteristics”			“Presence of A distinct from B”		Grounded Theory	
CORRELATION “Associations”	Quantitative	Deductive	“Covariance between amount of A and amount of B”	Lab or Designed Experiment	Historical Observational Developmental Correlational	RATIONALITY - a priori - falsifiability - parsimony  CORRELATION - statistical sig - practical sig
CAUSALITY “Relationships”			“Prescriptive” T Validating		“A causes B”	

**Figure 17. Research Evolutionary Model (Swartz, 2005)**

objective was to determine what was important to AFMC's customers. AFMC had already conducted some initial research using surveys, and had expressed interest in continuation of this methodology. This led to the decision to use a survey.

### **The Decision to Use a Survey**

On 9 Feb 2006, AFMC released its Concept of Operations (CONOPS) for CRM. One of the key "desired effects" identified in the CONOPS was to improve its customer satisfaction. To accomplish this, AFMC derived a Business Process Model (Figure 18) that details their intended course of action. An integral part of this can be seen in Figure 18 at 2.6, which details the requirement to "assess customer service performance" and develop and monitor an "improvement plan." What this implies is that current customer service level must be measured, and that this measurement will be continually updated in order to see if the developed improvement plan is working. With this in mind, a customer service audit, in the form of a survey, appeared to be the best vehicle to meet this need. According to one CRM expert, "you need to get feedback that demonstrates that your client is getting what they want. Client satisfaction can be measured through surveys that track satisfaction on a number of variables over a period of time. Conducting a survey – deciding what you will ask, who you will ask and how often, and how you will evaluate the data- might be one of the best places to start" (Tudor, 2005, 18).

<p><b>2.1 Enable AF Strategic Business Plan for Sustainment &amp; Continuous Improvement</b></p> <p>2.1.1. Determine Operational Requirements</p> <p>2.1.2. Create Operational Execution Plan</p> <p>2.1.3. Implement Operational Execution Plan</p>
<p><b>2.2 Manage Customer Relationships and Collaboration</b></p> <p>2.2.1. Create and Update Customer Profile</p> <p>2.2.2. Establish Communication Channel with Customer</p> <p>2.2.3. Share Insights into Readiness Goals &amp; Priorities with Customer</p> <p>2.2.4. Advocate Solutions</p>
<p><b>2.3 Manage Customer Based Information &amp; Knowledge</b></p> <p>2.3.1. Identify Customer Information Requirements</p> <p>2.3.2. Manage Customer Information</p> <p>2.3.3. Analyze and/or Route Information</p>
<p><b>2.4 Manage Queries &amp; Provide Support</b></p> <p>2.4.1. Respond to Customer Query</p> <p>2.4.2. Facilitate Resolution of Customer-Related Issues</p>
<p><b>2.5 Manage Customer Orders</b></p> <p>2.5.1. Submit Order</p> <p>2.5.2. Process Order / Revision</p> <p>2.5.3. Monitor Order Fulfillment Process</p>
<p><b>2.6 Monitor Customer Service Performance &amp; Identify Improvement Opportunities</b></p> <p>2.6.1. Assess Customer Service Performance Against Goals &amp; Objectives</p> <p>2.6.2. Develop Improvement Plan</p> <p>2.6.3. Monitor Implementation of Improvement Plan</p>

**Figure 18. AFMC Business Process Model (BPM) (Green, 2006:9)**

Additional support for the development of a customer audit and survey was found in another section of the CONOPs (Green, 2006:5-6), which identified the following requirements to meet its desired CRM effect:

1. A customer-centric strategy, which manages customer relationship and expectations.
2. A Customer / stakeholder profiling capability.
3. Capability to segment the customer base (for high impact customers).
4. Robust means of linking customers to the supply chain.
5. A methodology for monitoring performance and introducing continual improvement measures.

6. Case management tools for tracking queries to conclusion.
7. Capability to store data for internal and external analysis.

Together both the Business Process Model and the above listed requirements provide the foundation to pursue and develop the customer service audit/survey, in order to determine the needs of AFMC's external customers.

### **Review of the Research Plan**

Knowing that survey methodology was a reasonable approach, AFIT submitted a research proposal on 27 Jul 05 to HQ AFMC, titled "HQ AFMC Customer Relationship Management Study." This proposal included a Statement of Work, which was broken into two parts. The first part directed appropriate research in the field of customer segmentation, which was accomplished by Captain White. White used three different groupings, recency, frequency, and location. This resulted in identifying twelve distinct groups of external customers (White, 2006:81). The second part established a requirement for a survey instrument that would accomplish a customer service audit of the identified AFMC customers. This audit would be used to determine the "incidence, frequency, and distribution of certain characteristics" within the targeted population. (Leedy, 2005:108)

Based on the intended deliverable, this research team came up with an actionable research plan to fulfill that requirement. The initial strategy encompassed two distinct goals. The first goal was to figure out how to build and conduct a survey. The primary researcher had no experience or expertise in this field, and subsequently audited a survey methods course taught by one of AFIT's subject matter experts (Heilmann, 2005).

The second goal was to find an efficient means of immersing the researcher in some of the latest ideas in the customer relationship management field. This was accomplished by an extensive literature review and attendance at two key conferences. Since AFMC was targeting its' Customer Service Centers (CSC) as the test bed for its' CRM initiatives, the first conference focused on call (or contact) centers. The International Contact Center Management Conference and Expo emphasized people management, customer service, business planning and strategy, and operations management. The majority of the material was directed at the private sector, which had more maturity in the CRM field. Of note, there was a growing field of public sector representatives. One of the key takeaways from this conference was the tremendous emphasis on sophisticated IT solutions for call centers. This was significant, because one of the common themes in failed CRM initiatives was the over reliance on IT. (Rigby and others, 2002:108)

The second conference was North American Conference on Customer Management (NACCM). Seminar attendance focused on Customer Experience Management and Customer Service Management. One of the key takeaways was tremendous exposure to experts in measuring customer satisfaction. One example was the Perseus company, which specialized in online survey development. Experts like Perseus were particularly knowledgeable in understanding that a there is growing emphasis on the collection and analyses of customer profile information. "Surveys can aid in many efforts, including identifying customer needs and wants, designing new products, and services, determining pricing strategies, surveying customer loyalty and satisfaction and forecasting sales" (Kazarian, 2000:2)"

## Survey Development

The first step taken in the writing the survey instrument was to look at some examples of like surveys, surveys that dealt with public sector efforts to measure customer satisfaction. As mentioned earlier, this is an emerging field, and there was no shortage of examples to chose from. The intent was to look for common themes in the questions, as well as identifiable patterns in the order in which questions were asked. Additionally, the researcher attempted to figure out how many questions should be asked, what is the appropriate scale for the answers, and how should the questions be phrased. The following is a list of the surveys that were reviewed:

1. University of Texas Survey of Organizational Excellence ((UT Austin, 2005)
2. Internal Revenue Service Customer Satisfaction Survey (IRS, 1999)
3. American Customer Satisfaction Index (ASCI, 2006)
4. Colorado Dept of Transportation Customer Satisfaction Survey (CDHS, 2002)
5. State of Kansas Department of Transportation External Customer Survey (ETC Institute, 2000)
6. AC Nielsen Survey of New Zealand Police – External Public Satisfaction Survey (AC Nielsen, 2004)
7. City of San Diego- Customer Satisfaction Survey (Ekhard, 2001)
8. Arizona Department of Administration 2003 External Customer Service Audit (ADOA, 2004)

In addition to these surveys, the researched examined numerous online resources that provided survey “solutions.” As the market for CRM has expanded, so has the

market for companies that provide CRM related services. The following online sources were also reviewed:

1. Perseus Survey Solutions (Perseus.com)
2. Benchmark Portal (Benchmarkportal.com)
3. QuestionPro.com
4. Flexstudy.com
5. Surveyshare.com

The net result of these reviews was the discovery of a short list of concise questions that would form the foundation of the survey. The author, Dr. Jon Anton (founder of Purdue University's Center for Customer-Driven Quality) believed that a customer satisfaction study should contain the following attributes: (Anton, 2005)

1. Details by customer type (e.g., age, education, demographics, etc.)
2. Primary reason for contact
3. Overall quality of service experience using a 5-point scale (where 5 equals very satisfied, 4 equals satisfied, 3 equals neutral, 2 equals dissatisfied, and 1 equals very dissatisfied)
4. Length of time before reaching an agent
5. Level of satisfaction with agent's quality of service (using the 5-point scale)
6. Customer's satisfaction level with the agent's politeness, courtesy, concern with your issue, willingness to help, listening skills, knowledge of the product or issue, and the agent's overall ability to answer the customer's question and/or resolve her issue (using the 5-point scale)
7. Level of satisfaction with agent's quality of service (using the 5-point scale)
8. Number of times the customer has contacted your center about this specific question or issue

9. Determination as to whether or not the customer's question and/or issue was resolved with this contact
10. Details on reason for dissatisfaction, if customer was dissatisfied with any aspect of the calling experience

In addition to this list, the survey incorporated the questions that had been previously asked by the Warner Robins CRM on their survey (Green, 2005, 16-20). Finally, seven questions were written based on Ahadi's BPR Implementation Model (Ahadi, 2004:8), with the intent of determining whether or not AFMC had adequately involved its customers in the implementation of their CRM initiatives to date. The final survey can be found at Appendix A. The survey was organized as follows:

1. Segment One - Frequency of usage/Demographics
2. Segment Two - Length of time before reaching a Customer Service Center agent
3. Segment Three - Call resolution parameters
4. Segment Four - Ability to Manage Inquiries and Provide Support (Service Level)
5. Segment Five - Web Services (Awareness of existing services, and desire/drive to use them)
6. Segment Six – Satisfaction Level with CSC Representatives
7. Segment Seven – Overall Satisfaction with the Customer Service Center (CSC)
8. Segment Eight – Awareness and Customer Input on CRM Initiative

### **Survey Verification and Validation**

Once the survey was built, the researcher went through normal protocols to verify the validity of the instrument. "The validity of a measurement instrument is the extent to which the instrument measures what it is supposed to measure." (Leedy and others,

2005:28) These protocols included several iterations of draft surveys examined by three of the AFIT professors and the researcher. Each run examined a different facet of the survey. The first tests examined the wording of the questions, to ensure that the intent of the question was clear. Subsequent examinations reviewed the number of questions, to eliminate redundancy, and to temper the length of the survey so as not to discourage participation. The organization of the survey was also scrutinized, to guarantee the questions flowed in a logical order and that the appropriate questions were asked, based on desired information and input from the respondents.

After the AFIT Team had thoroughly reviewed the instrument, a similar examination was performed by the AFMC CRM Team, to include the team leader Wing Commander Green, and his assistant Mr. Tommy Justice. A member of AFMC's IBM consulting team, Mr. Ray Yearty was also able to review and comment on the content of the survey. During the week of 14-16 Mar, AFMC held a working group, at which representatives from all three ALCs were able to take a critical look at the survey and have their inputs incorporated. Finally, a pre-test was conducted with the 108<sup>th</sup> Air Refueling Wing at McGuire AFB, NJ. A group of six Customer Service Center users from this unit reviewed the survey for clarity and readability. The group did not have any questions about the survey, and returned the instrument without further edits or comments.

### **Data Source**

White identified five hundred and thirty-nine different external customers, based on information pulled from the three Air Logistics Center databases. The information was

based on Fiscal Year 2005 requisitions. The segmentation methodology centered around organizing the external customers based on the recency of the interaction, the frequency of the interaction, and location/mission of the unit requesting service (White, 2006).

### **Data Collection**

The customer satisfaction audit was conducted using a web-based survey. The advantages of online data collection include the increased speed of the data collection, better access to a larger sample size, and low data collection costs (Heilmann, 2005:7). The original intent was to survey the five hundred and thirty-nine different external customers (organizations) identified by White. However, the data provided by White presented numerous challenges. The first was that the organizational addresses were traditional mailing addresses, and not organizational e-mail addresses. This would dramatically increase the time required to contact these organizations, since the groups represented units around the world, to include seaborne organizations. Additionally, using mailed surveys increases the “severity of the non-response bias.” (Heilmann, 2005:7)

The researcher went back to the ALCs and requested a list of their current customers’ e-mail addresses. The ALCs responded with a combined list of fifteen hundred and thirty-four addresses. This list effectively represented the actual population of the intended survey audience. This was advantageous, because it negated the need to derive a sampling scheme, so that the population would be proportionately weighted. “The basic rule is, the larger the sample, the better.” (Leedy and others, 2005:207) The challenge presented by using this list was that it did not identify users based on White’s

segmentation model. To compensate for this, specific questions were incorporated into the survey that would help identify the recency, frequency, and location of the respondents, as proposed by White.

The request for survey participation was sent out the second week of May, 2006. The following week, a follow up request was sent to the same sample, to encourage participation, and raise the number of survey respondents. The survey ended on 22 May, 2006.

### **Data Analysis**

Based on the fact that a survey would be the data collection instrument, one key question was how to analyze the information once it was gathered. During the initial CRM testing at Warner Robins, the test team gathered some preliminary results by conducting the following four question survey (Green, 2005:16-20):

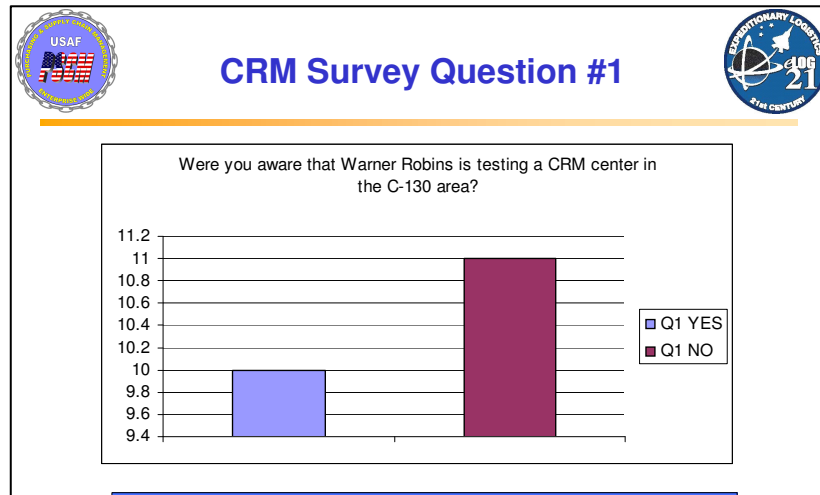
1. Were you aware that Warner Robins was testing a CRM center in the C-130 area? (yes or no)
2. Did CRM answer all of your questions? (yes or no)
3. Was the response timely? (yes or no)
4. Overall Customer Satisfaction (5 Point Likert Scale)

In addition to these questions, the Warner Robins CRM team recorded data in the following areas:

1. The number of open tickets per day
2. The type of incident tickets
3. What type of action was taken on each incident ticket

#### 4. The status of requisitions

This information was important in trying to determine the level of sophistication in analysis sought by the customer (AFMC). Based on the existing precedent, it appeared that AFMC favored basic statistics displayed in histograms (Figure 19), in order to keep relatively simple measures that could be compared on a recurring basis, i.e. comparing the overall satisfaction rating quarterly to see if there was any improvement.



**Figure 19. Sample of Warner Robins Survey Reporting (Green, 2005:16)**

While this approach was very conventional, it lacked the ability to ascertain any relationship between the answers of one question with an overall measure of satisfaction. Based on that, the intended survey instrument was designed to provide valuable information to the customer using similar “stand alone” numbers. However, the analysis also includes linear regression analysis to see if there are any questions that have a higher statistical correlation to the overall satisfaction of the customer. By definition, linear regression is “a method of describing the relationship between two or more variables

(predictor/independent) by calculating a best-fitting straight line (or plane) on a graph. The linear regression model assumes that there is a linear, or "straight line," relationship between the dependent variable and each predictor" (Heilmann, 2005). Overall, this type of analysis is known as "correlational study", and it examines "the extent to which differences in one characteristic or variable are related to differences in one or more other characteristics or variables. A correlation exists if, when one variable increases, another variable either increases or decreases in somewhat predictable fashion." (Leedy, 2005).

### **Summary**

This chapter explained the means in which the researcher intended to answer the question on how to identify AFMC's external customer issues. It started with a quick overview of available research methodologies, and then focused on why survey methodology was the most appropriate. Then, it detailed how the actual survey was developed. Finally, it touched on the intended source of the research data, the proposed collection means, and the intended method of analysis.

The next chapter will present the results of the survey, and provide the foundation for the conclusions of this research.

## **IV - Results**

### **Chapter Overview**

The purpose of this chapter is to detail the results of the survey that was conducted. First, there is a brief recap of the survey demographics. Then there is a quick overview of the results from each segment of the survey. Histograms are provided for each question in the survey. Next, there is linear regression analysis comparing the overall satisfaction rating, with each of the questions in the eighth segment. Finally, there is a comparison of scores between the deployed and non-deployed external customers.

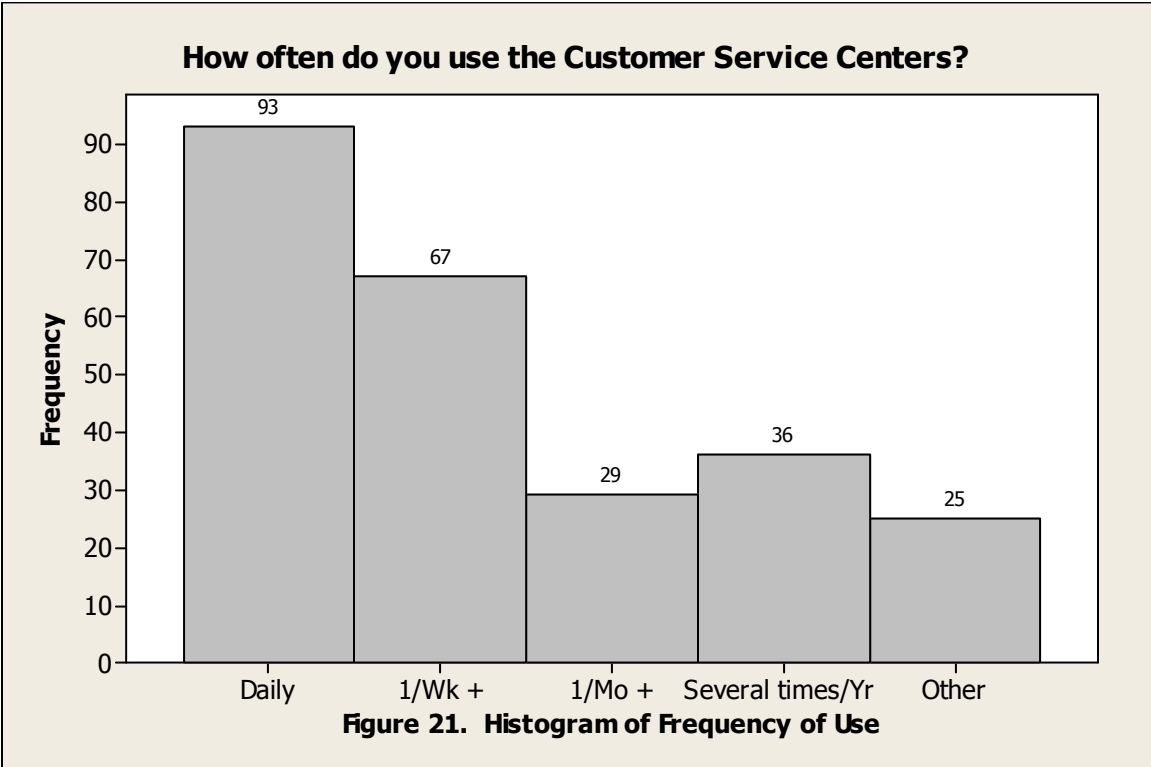
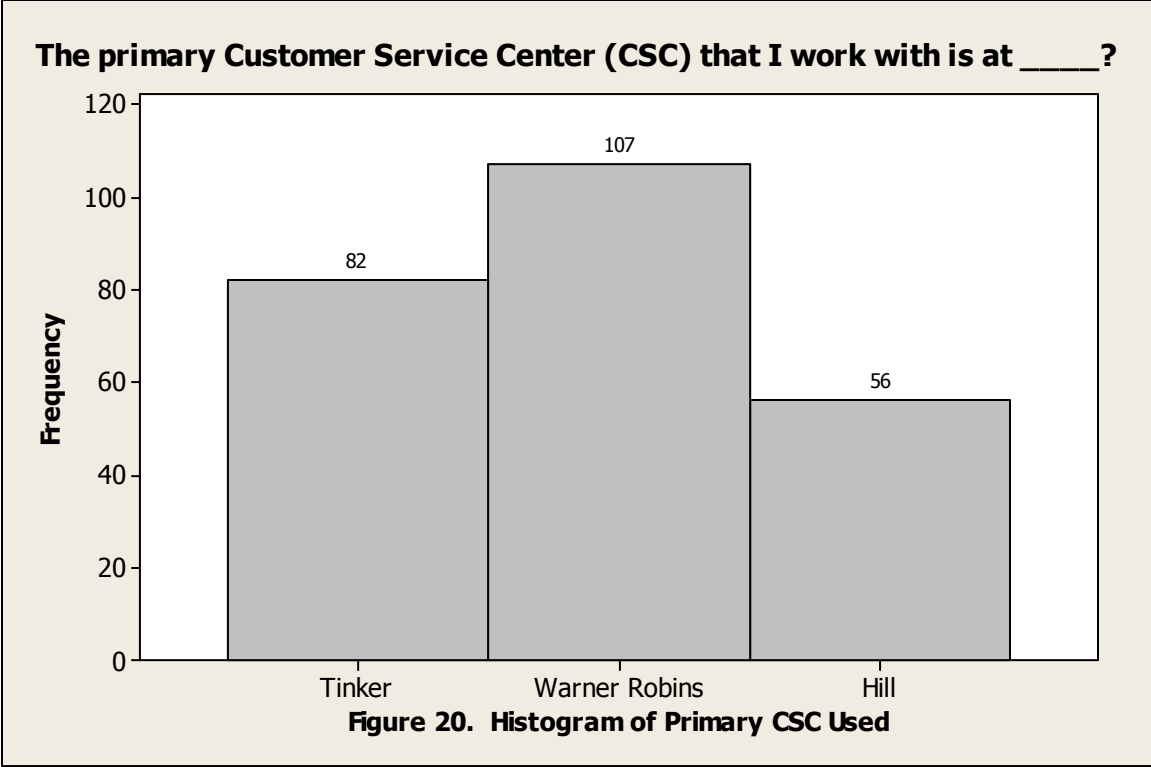
### **Survey Demographics**

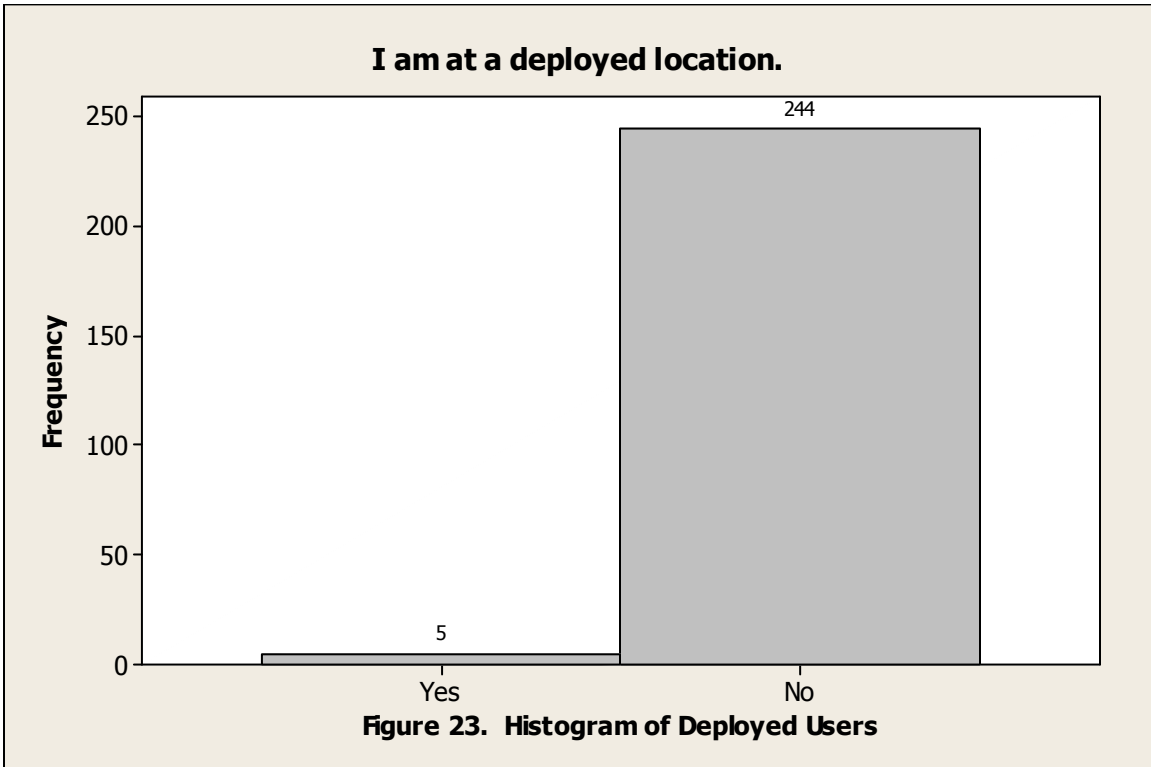
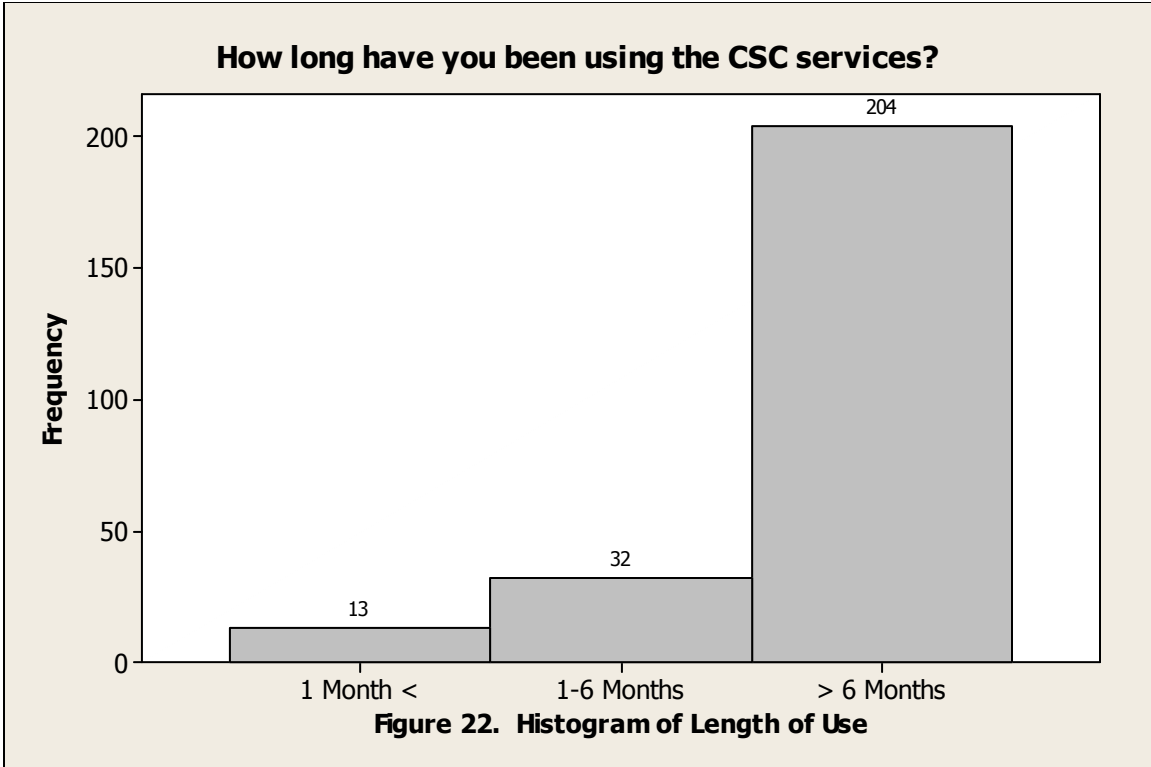
Fifteen hundred and thirty-four surveys were sent out via electronic mail on 11 May, 2006. One hundred and ninety-eight were immediately returned due to various reasons, including incorrect addresses, recipients being out of the office, and anti-spamming or anti-virus protocols. Two hundred and fifty-eight responses were received. Eight of those responses were immediately eliminated because they were incomplete. The overall response rate was slightly greater than sixteen percent. By factoring in the one hundred and ninety-eight immediate returns, the response rate rises to just under nineteen percent.

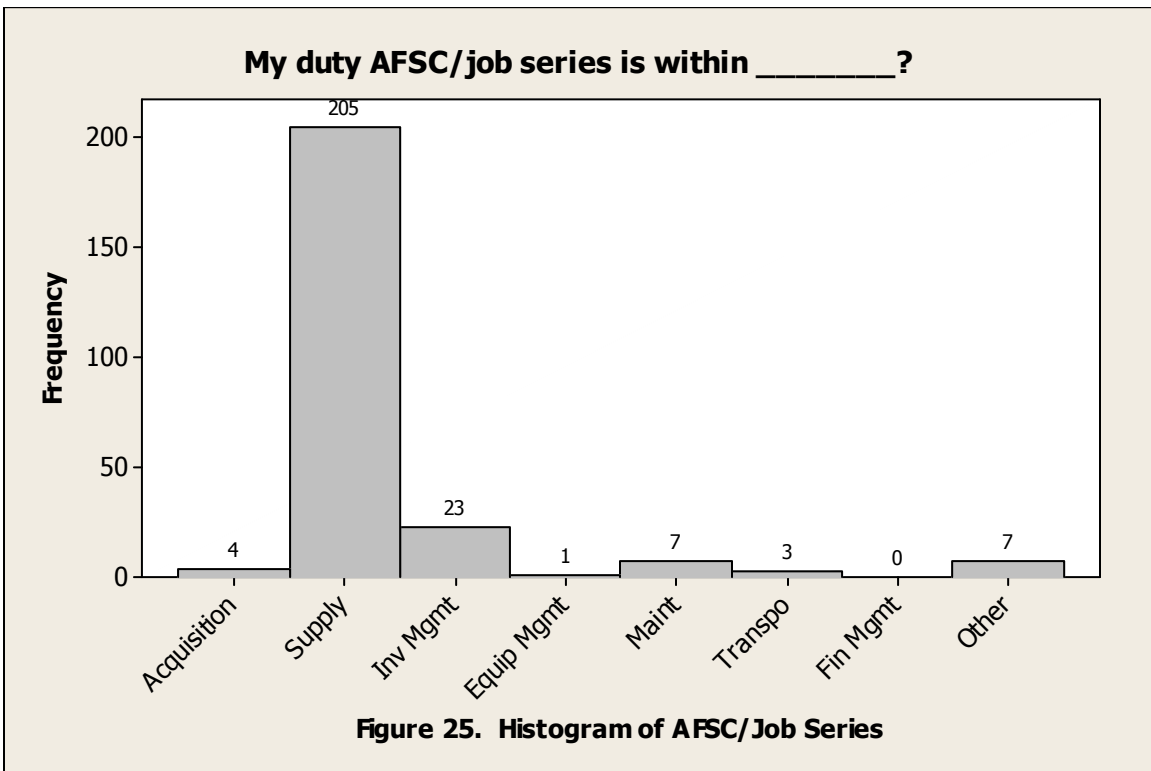
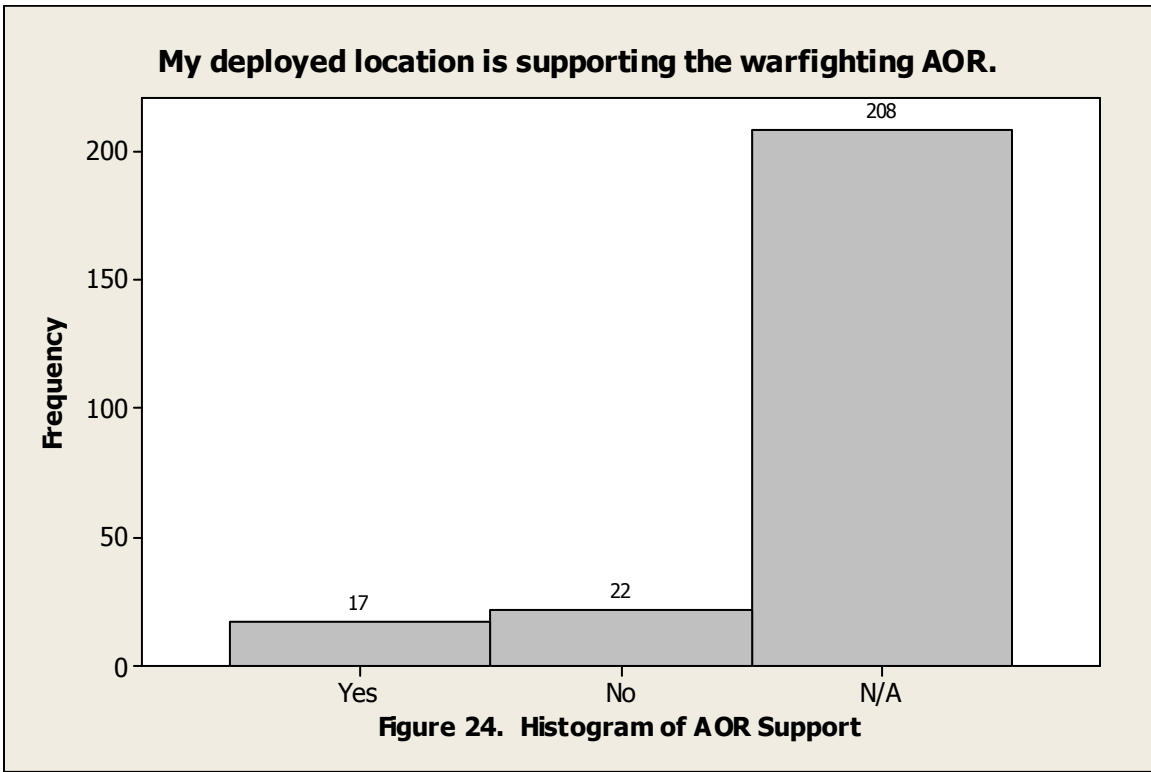
### **Segment One Highlights**

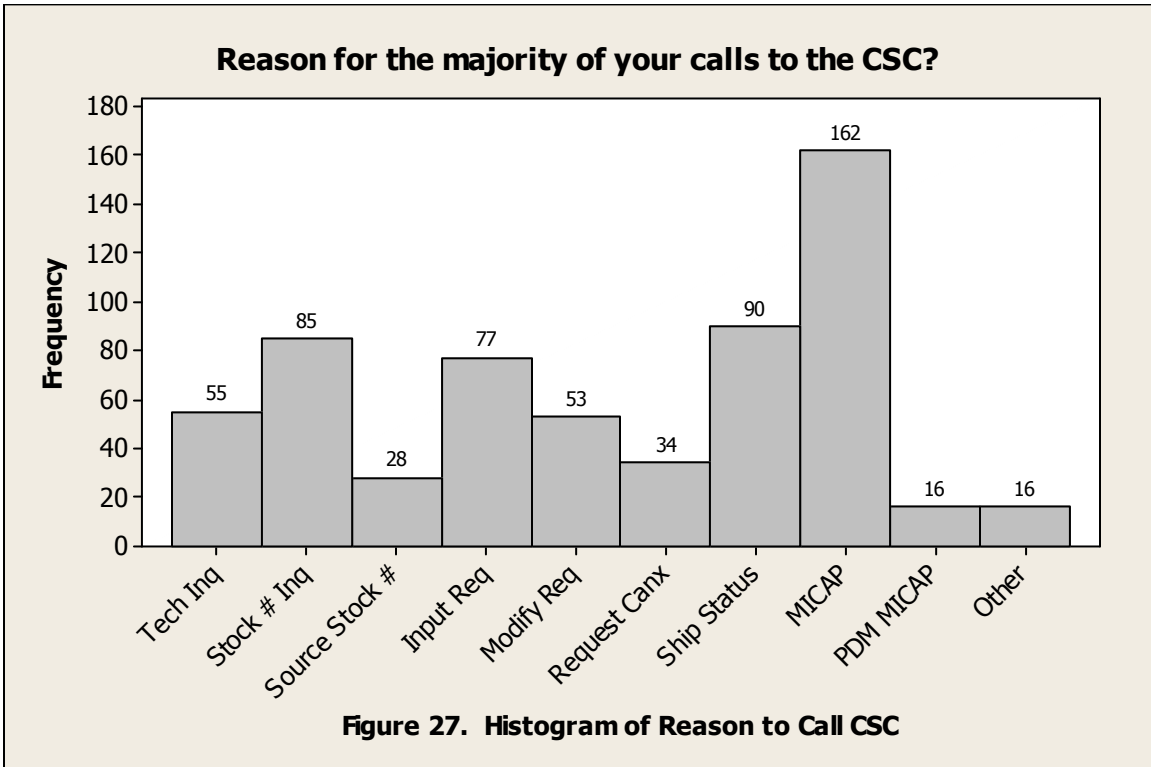
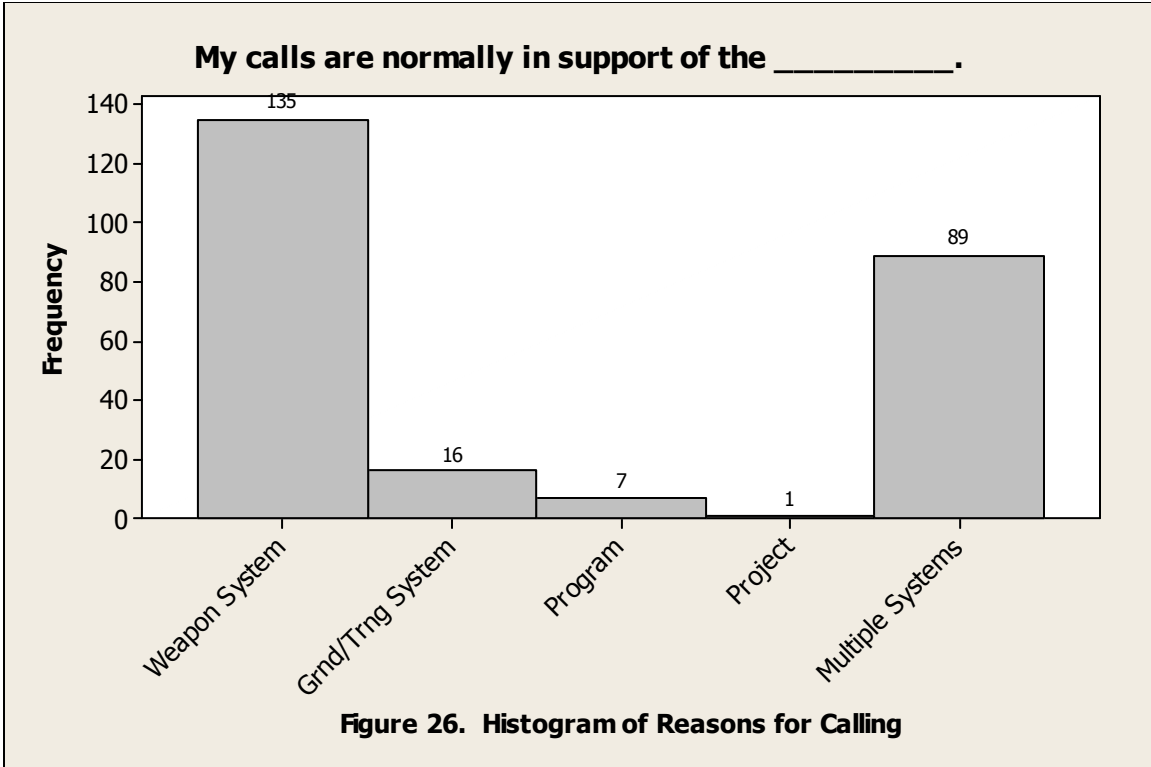
Segment one consists of eight questions, and focuses on external customer demographics. Key parameters included the primary CSC that the customer interacted with, frequency of use, and deployment status. The majority of the information listed speaks for itself, but three things stood out, and warrant further discussion. First,

question two (Figure 21) was used to delineate the recency and frequency of the customer. Respondents that were categorized as using the CSCs “daily” or “once a week or more” were identified as being more recent users, and high frequency users. In comparing the mean overall satisfaction levels between “more frequent” and less frequent” users, the less frequent users had an overall higher satisfaction level (4.25 on a scale of 5) than the more frequent users (4.15). The second noteworthy item was that only 2% of the customers reporting being at a deployed location (Figure 23). This low percentage represents a challenge to AFMC, because one of their ultimate goals is “providing optimal support to the warfighter’s deployed locations. As a result, gauging the satisfaction and receiving feedback from these customers is of monumental value” (White, 2006:78). That being said, it might be challenging for any organization to focus efforts on such a small proportion of their customer base, especially one that is constantly rotating personnel. The ability to re-contact and further survey these deployed assets would be challenging at a minimum and might be considered an unrealistic goal. The final item of note is the disparity of the information from Figures 23 and 24. In Figure 23, only 2% identified themselves as “deployed”, yet in Figure 24, 16% of respondents had answers on whether or not their deployed location supported the warfighting AOR. This inconsistent is being attributed to poor wording on the survey. A better way to ask the question associated with Figure 24 would have been “If you answered yes to the previous question, then please indicate if your deployed location is supporting the warfighting AOR.”



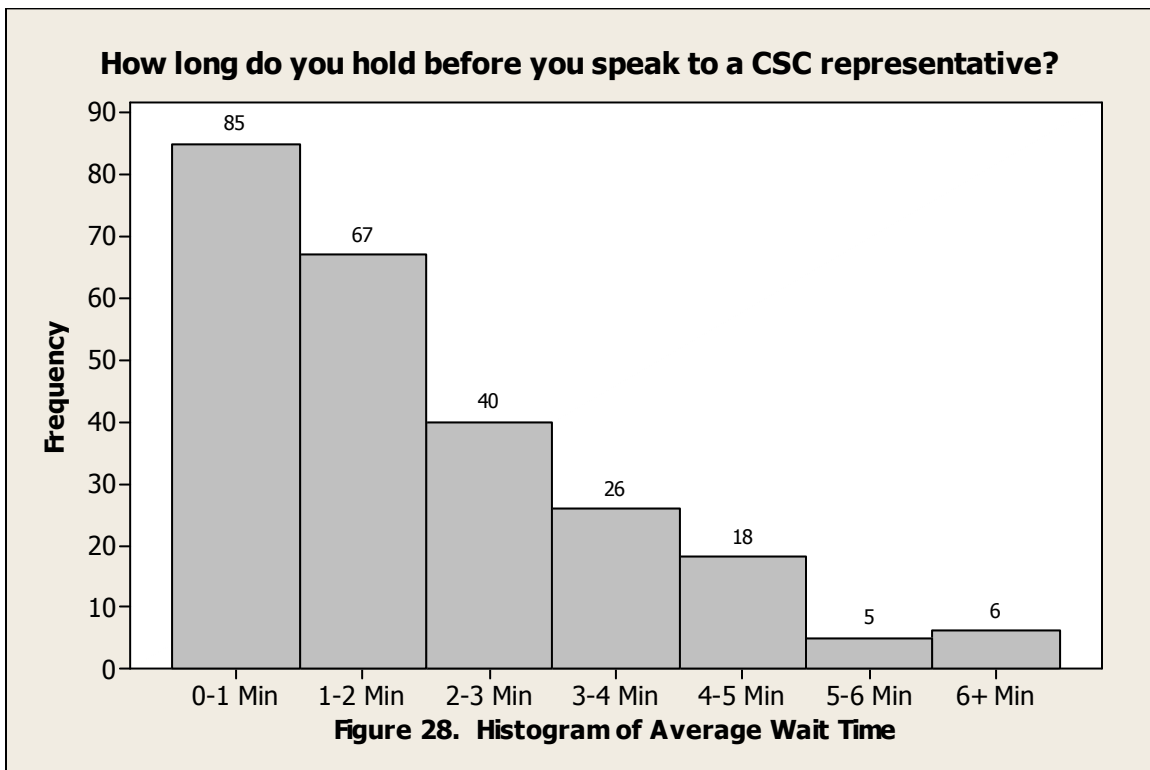


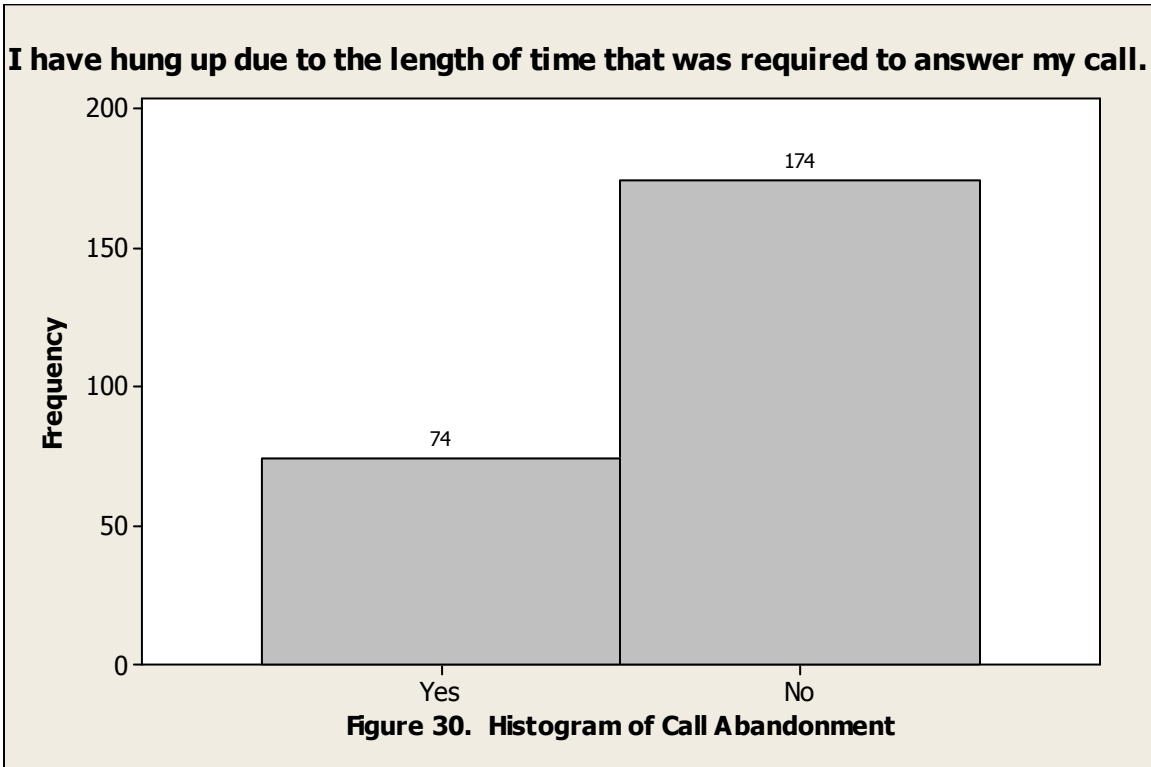
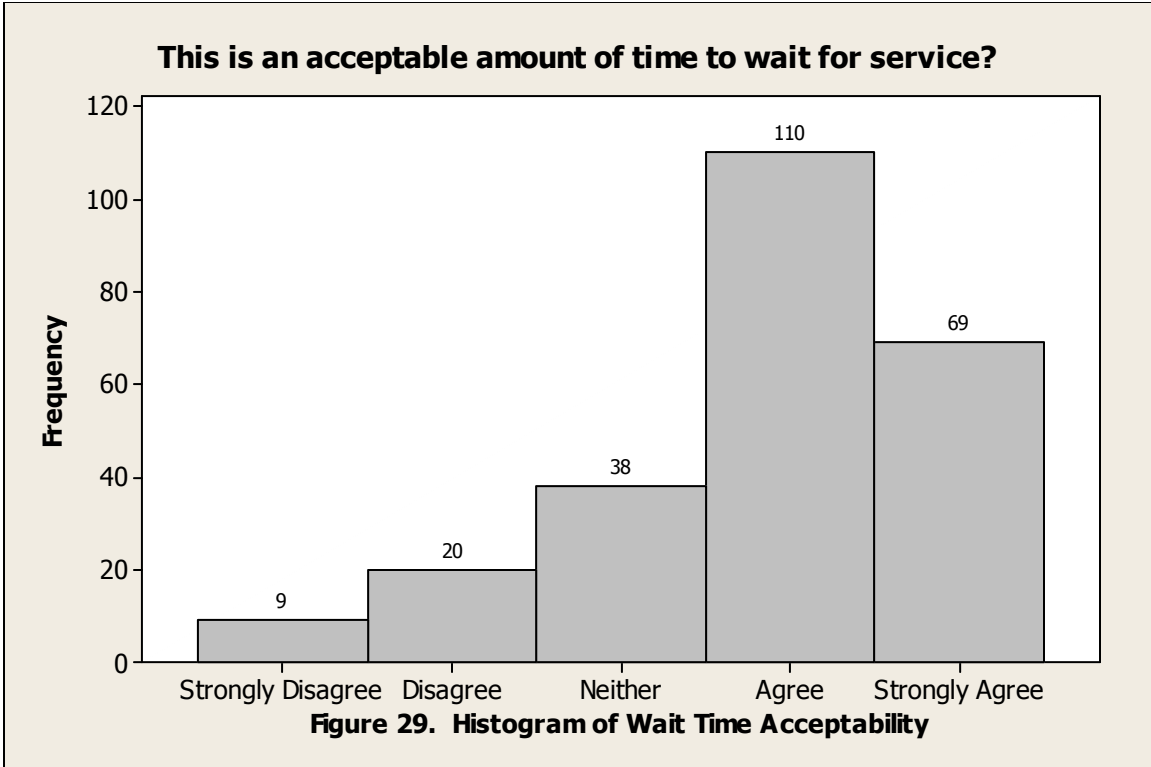


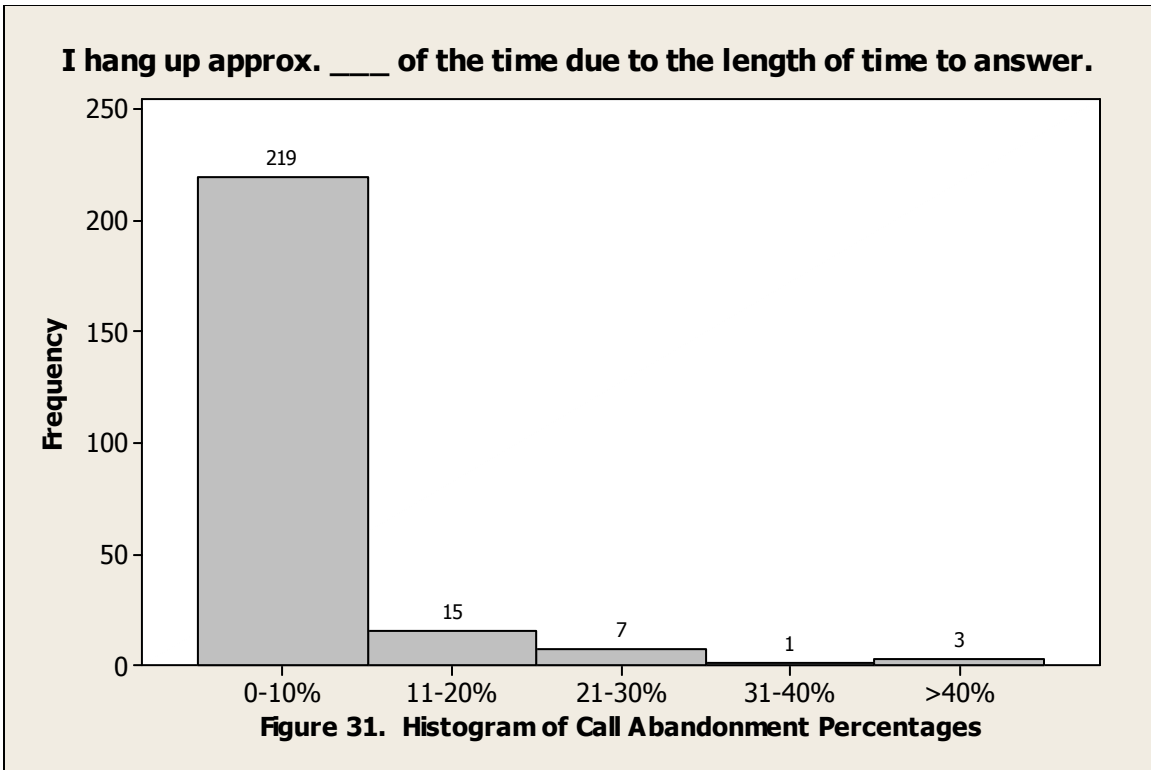


## Segment Two Highlights

This segment has four questions, and concentrates on identifying key information on average hold times, and call abandonment figures. Seventy-seven percent of survey respondents held for three minutes or less (Figure 28), and seventy-two percent of the populace “agreed” or “strongly agreed” that it was an acceptable amount of time to wait (Figure 29). Finally, thirty percent have hung up due to the length of time it took to answer the call (Figure 30), but eighty-seven percent (Figure 31) thought that call abandonment occurred ten percent or less of the time.



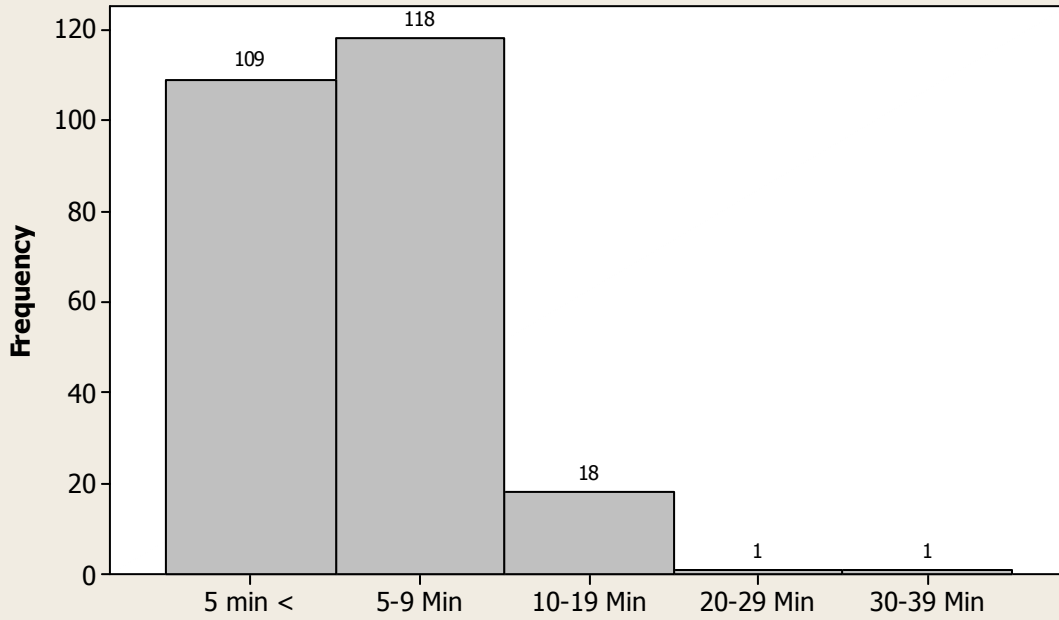




### Segment Three Highlights

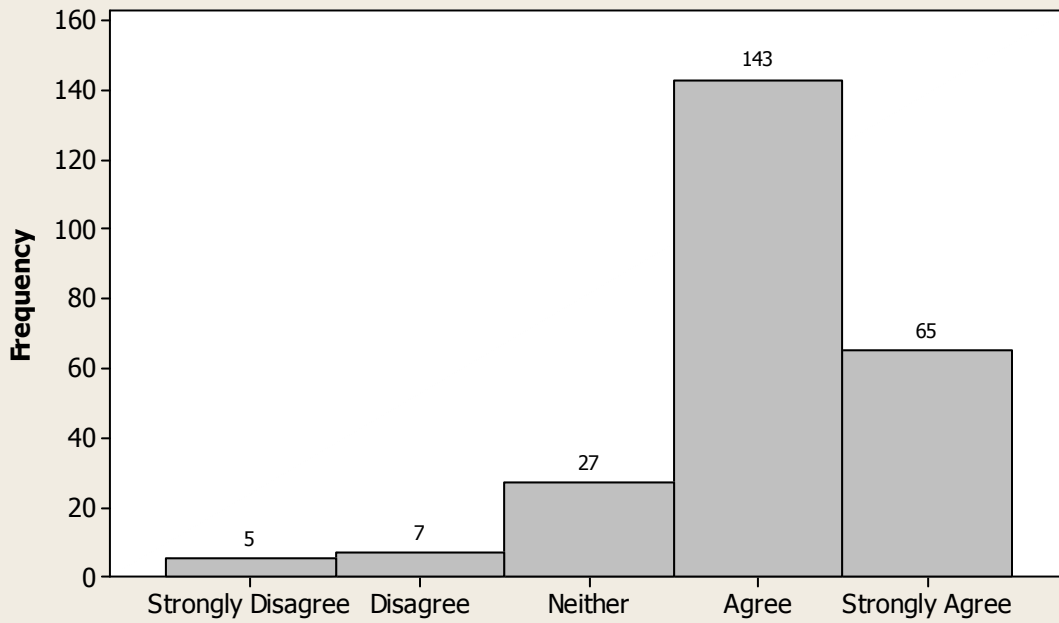
Segment three consists of four questions, and deals with call resolution parameters. Over ninety percent of the phone calls to the CSC lasted less than ten minutes (Figure 32) and eighty-three percent of the respondents either “agreed” or “strongly agreed” that it was an acceptable amount of time to answer their questions (Figure 33). Seventy-three percent of the populace “agreed” or “strongly agreed” that their calls were resolved with one phone call (Figure 34) while eight-four percent either “agreed” or “strongly agreed” that first call resolution was important to them (Figure 35).

**What is the average length of time you are on the phone with a CSC rep?**

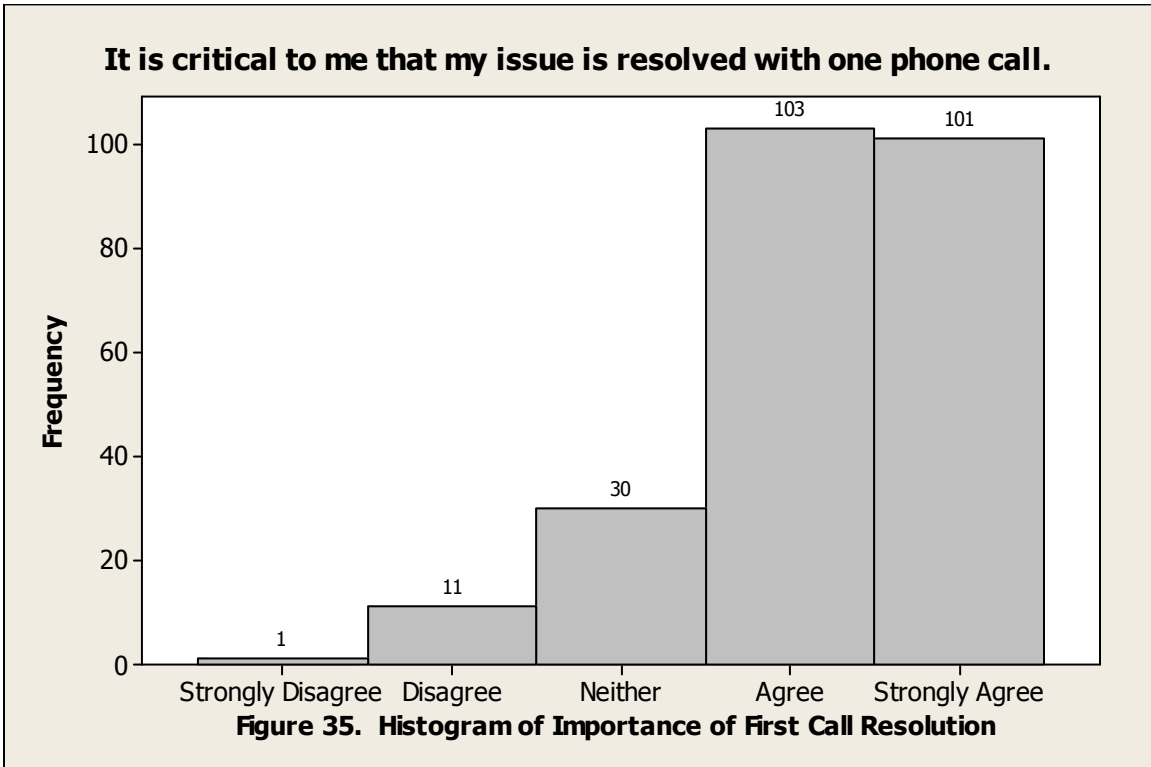
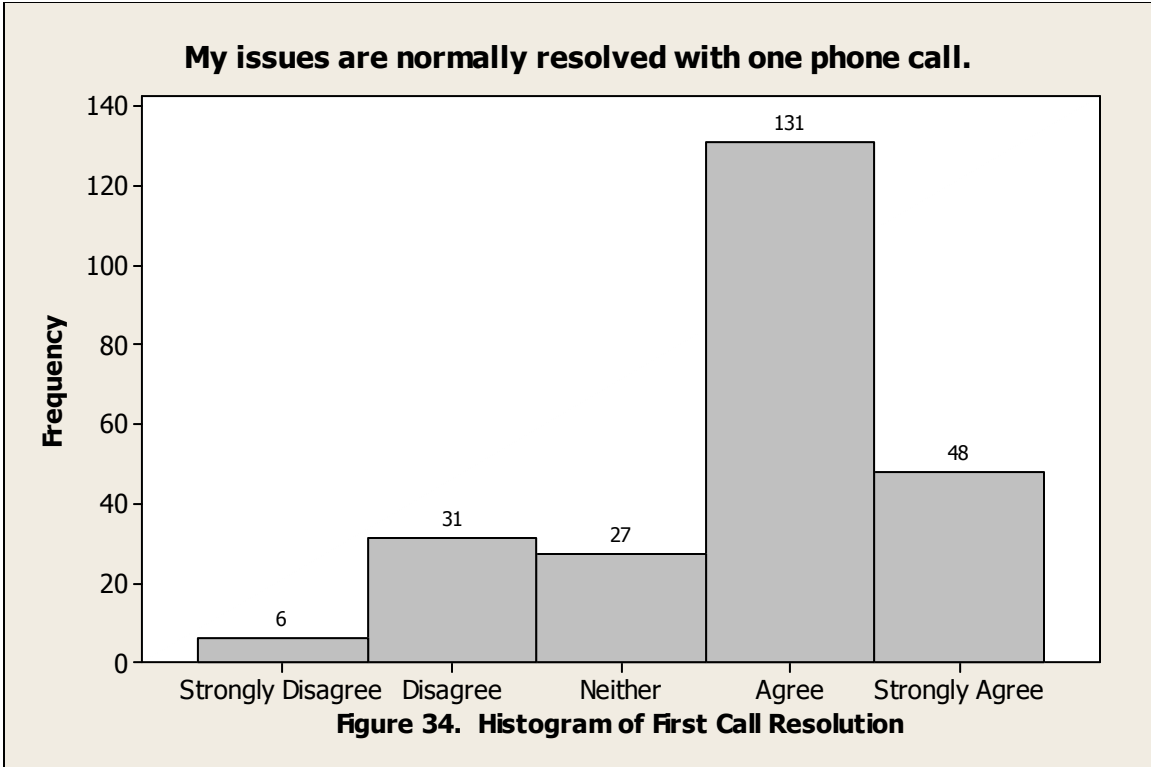


**Figure 32. Histogram of Average Phone Call Length**

**I am satisfied with the average time it takes the CSC to answer questions.**

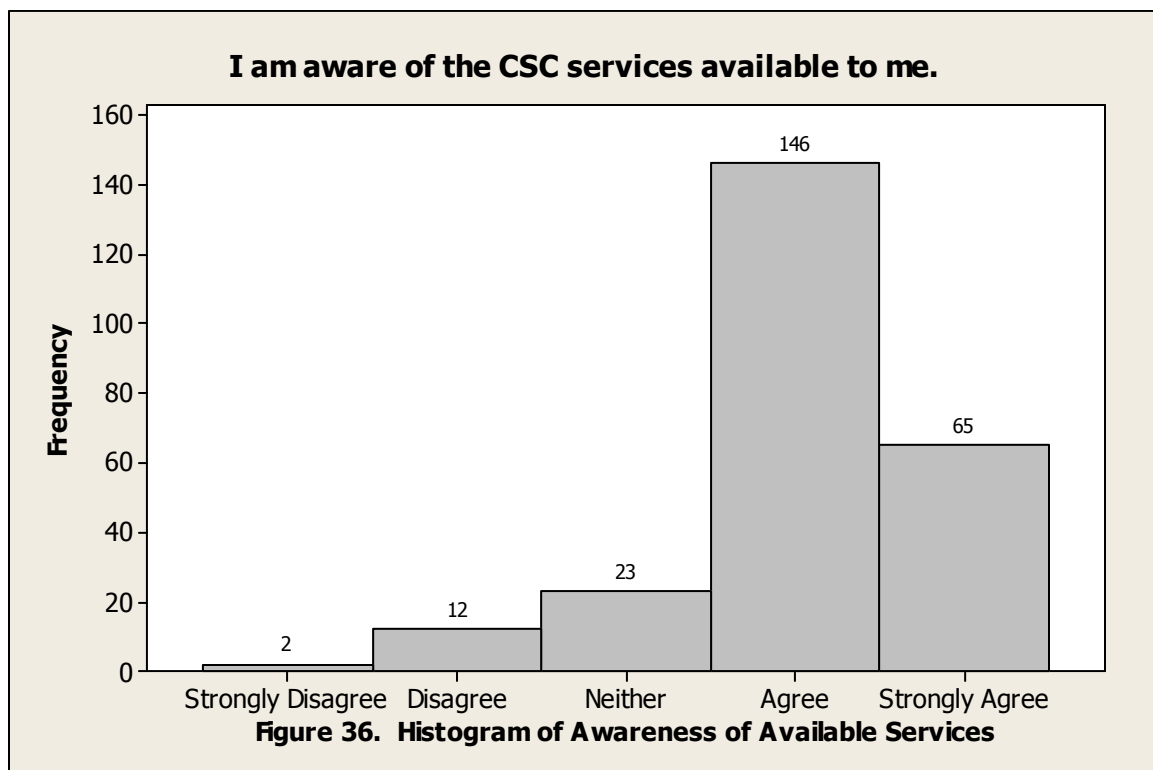


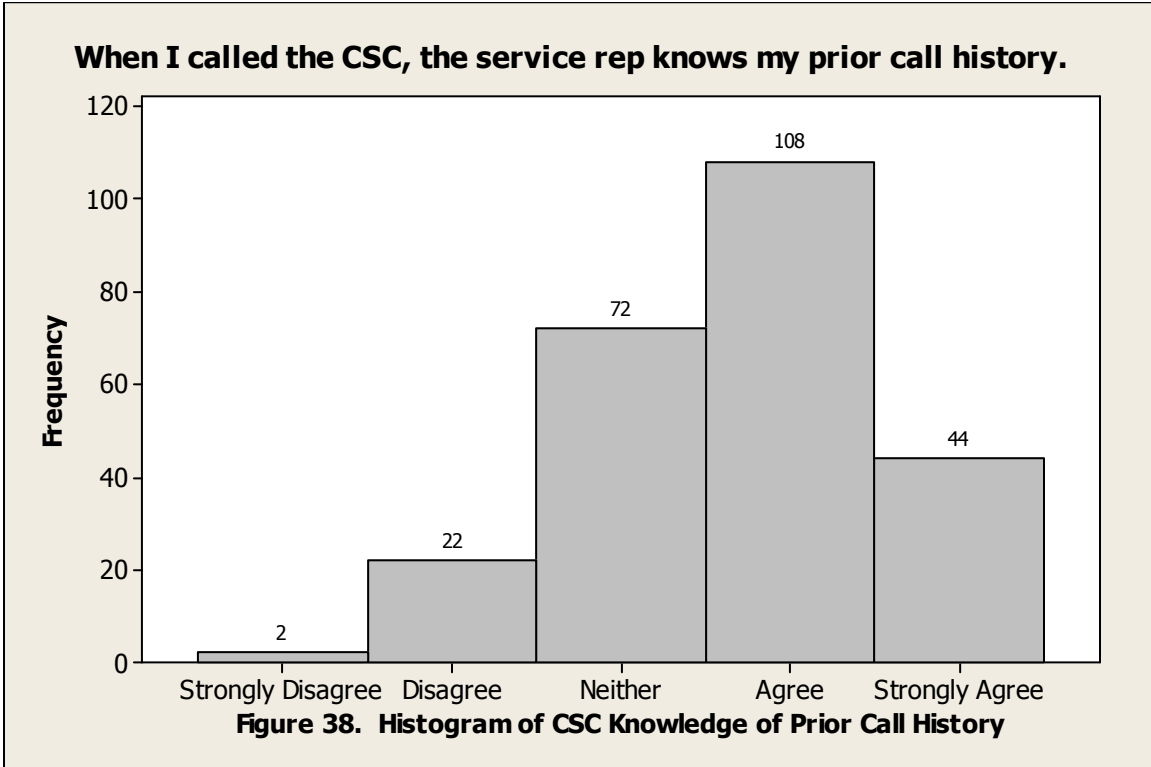
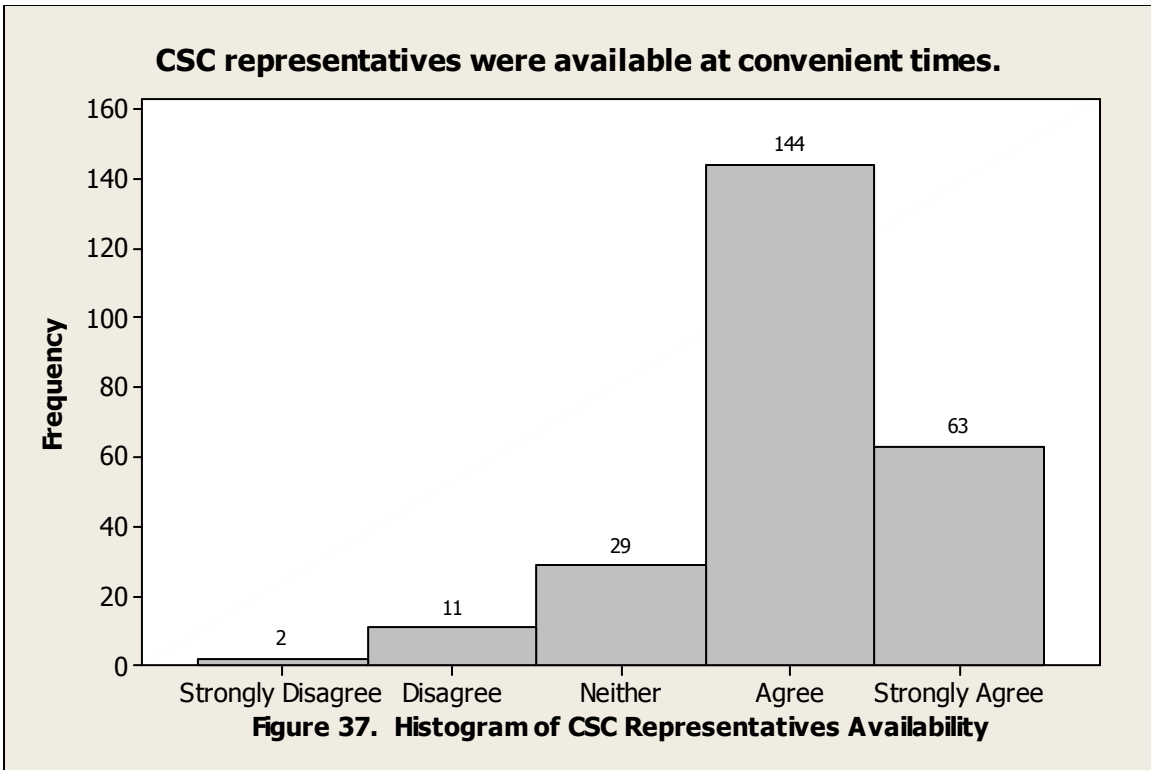
**Figure 33. Histogram of Call Length Satisfaction**



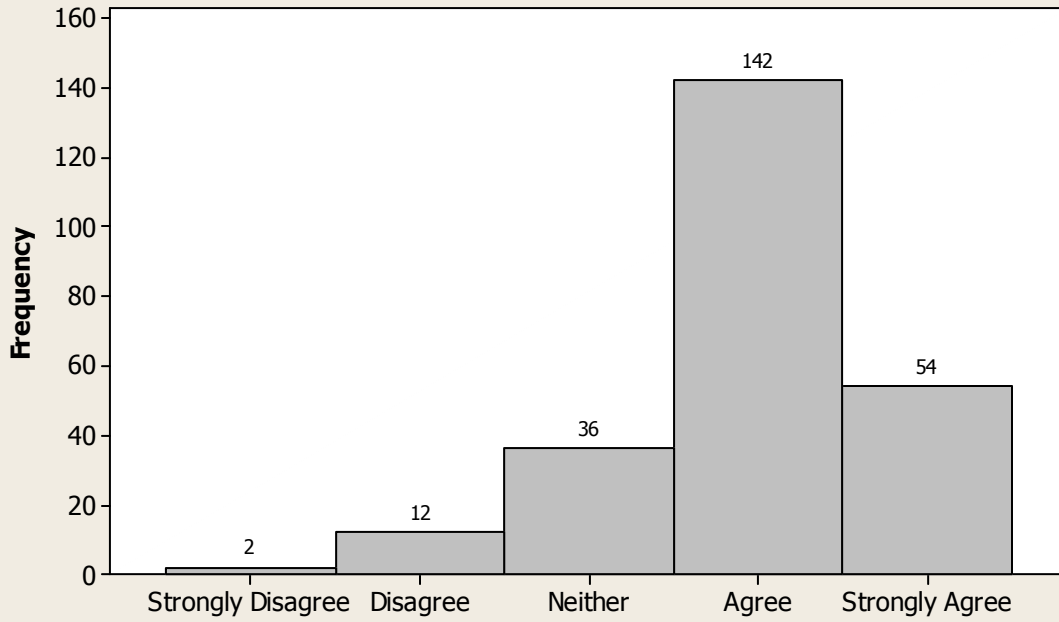
## Segment Four Highlights

This portion of the survey is made up of nine questions, and deals with the CSC's ability to manage inquiries and provide support. The CSCs have consistently high marks in this section, to include being available at convenient times (Figure 37), the accuracy of the information they are providing (Figure 39), and the ability to answer customer questions (Figure 40). One item to note is the lower percentage (60%) that "agreed" or "strongly agreed" when queried on whether or not the CSC knew their prior call history (Figure 38). Additionally, over 30% indicated moderate opinions or worse on the desire to communicate via e-mail at least part of the time (Figure 42). This point is reiterated in Segment Five at Figure 48, which shows that customers prefer to have a variety of means in which to interact with the CSCs. Finally, over 10% of the respondent population felt that they were referred over 30% of the time (Figure 43).



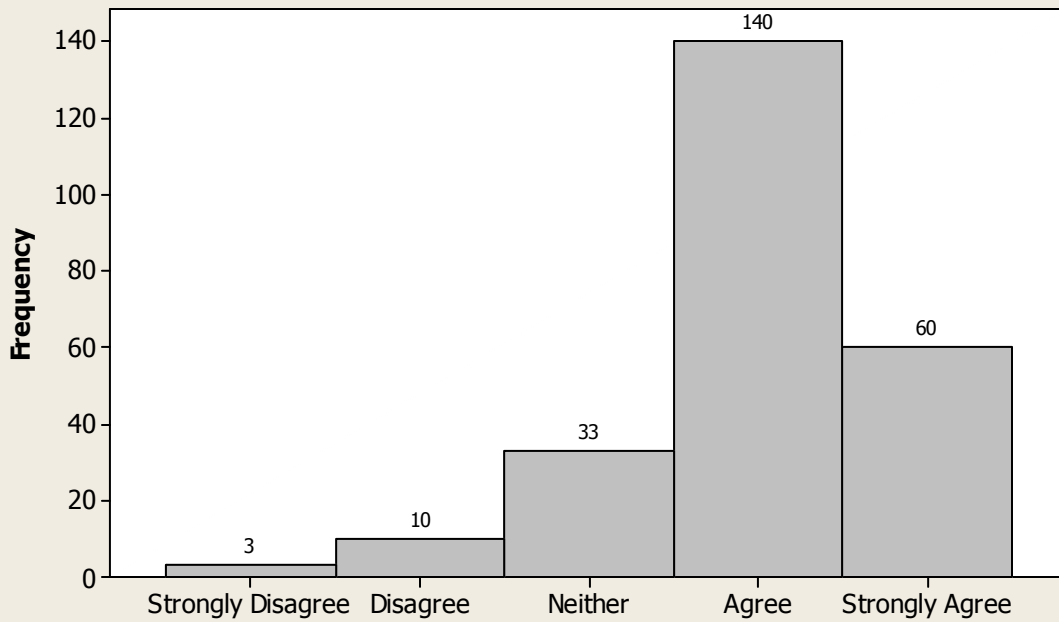


**I am confident about the accuracy of the information provided by the CSC.**

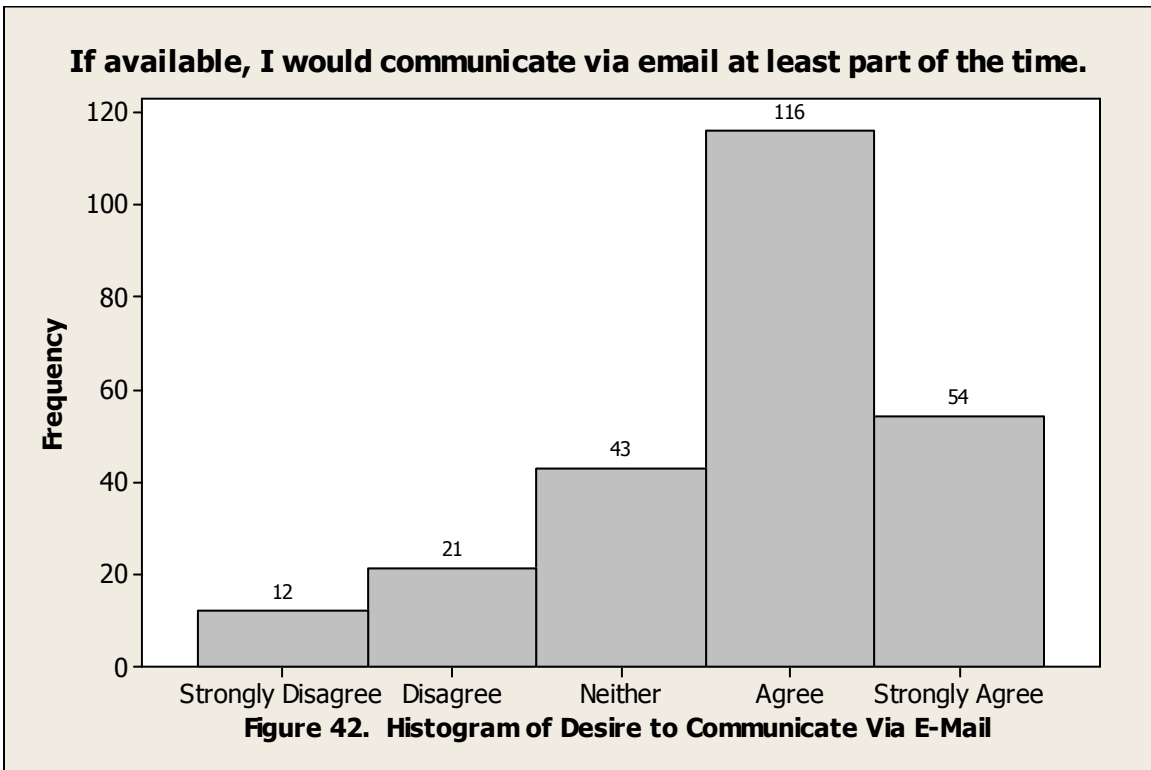
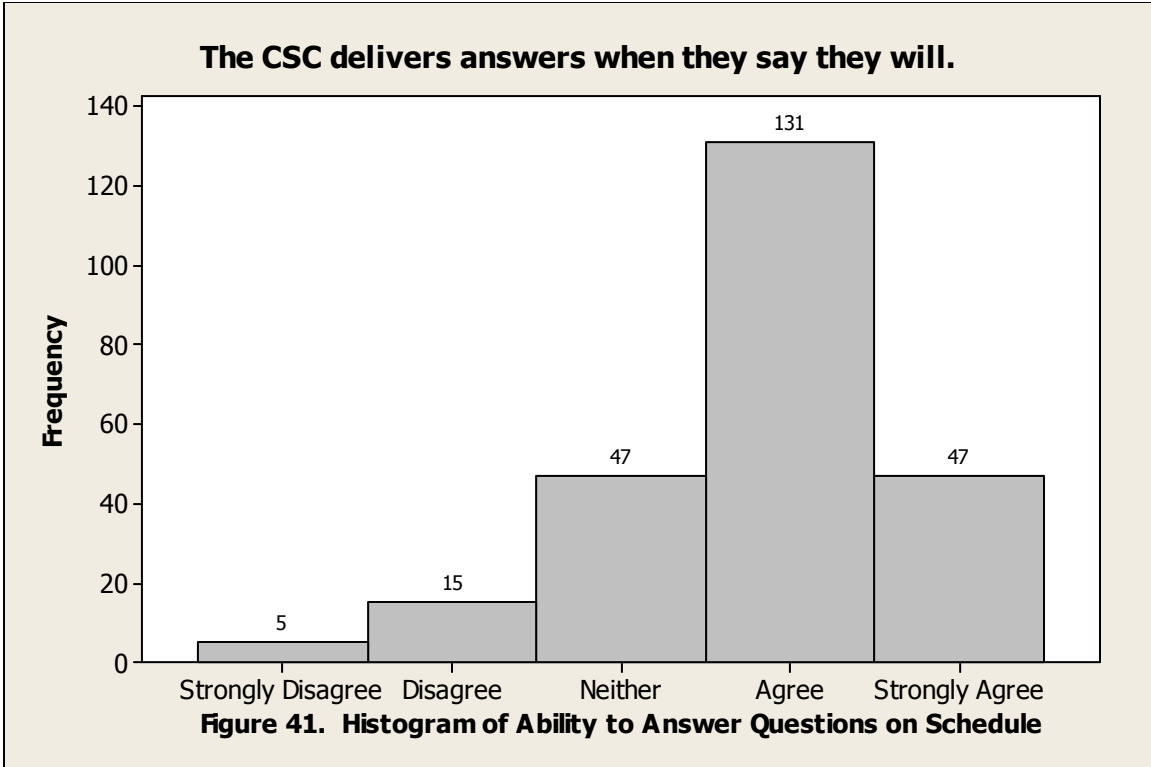


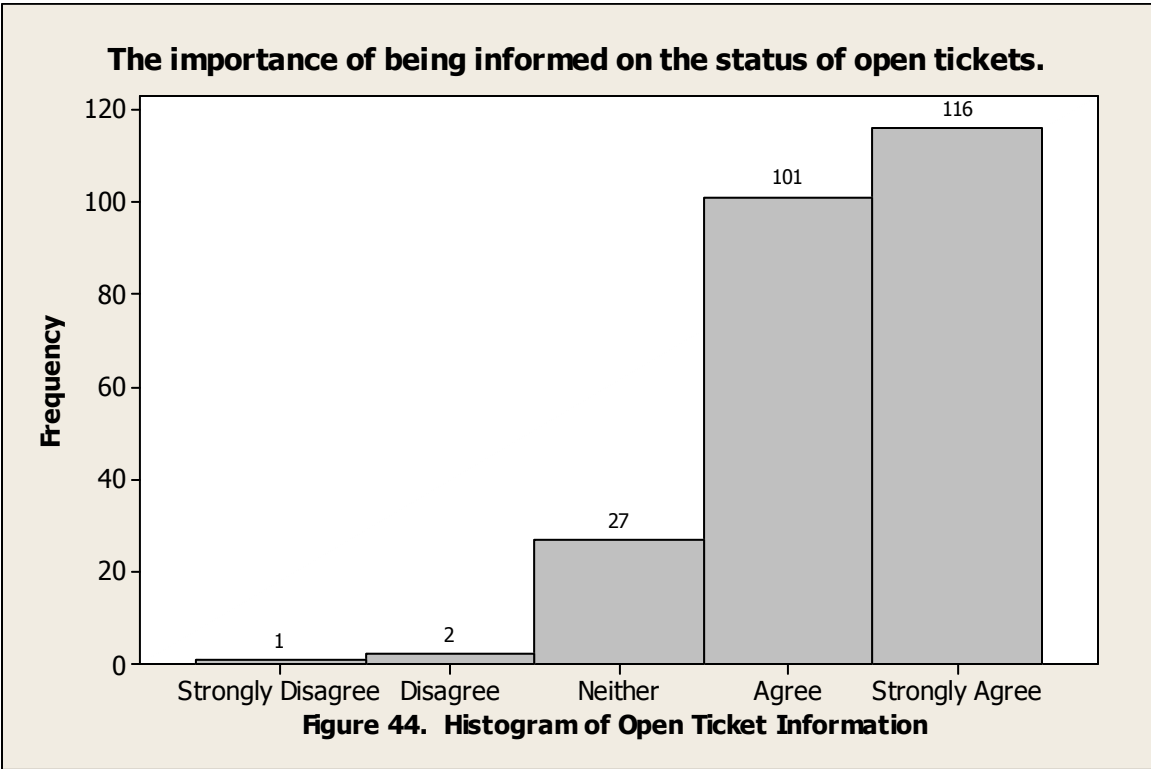
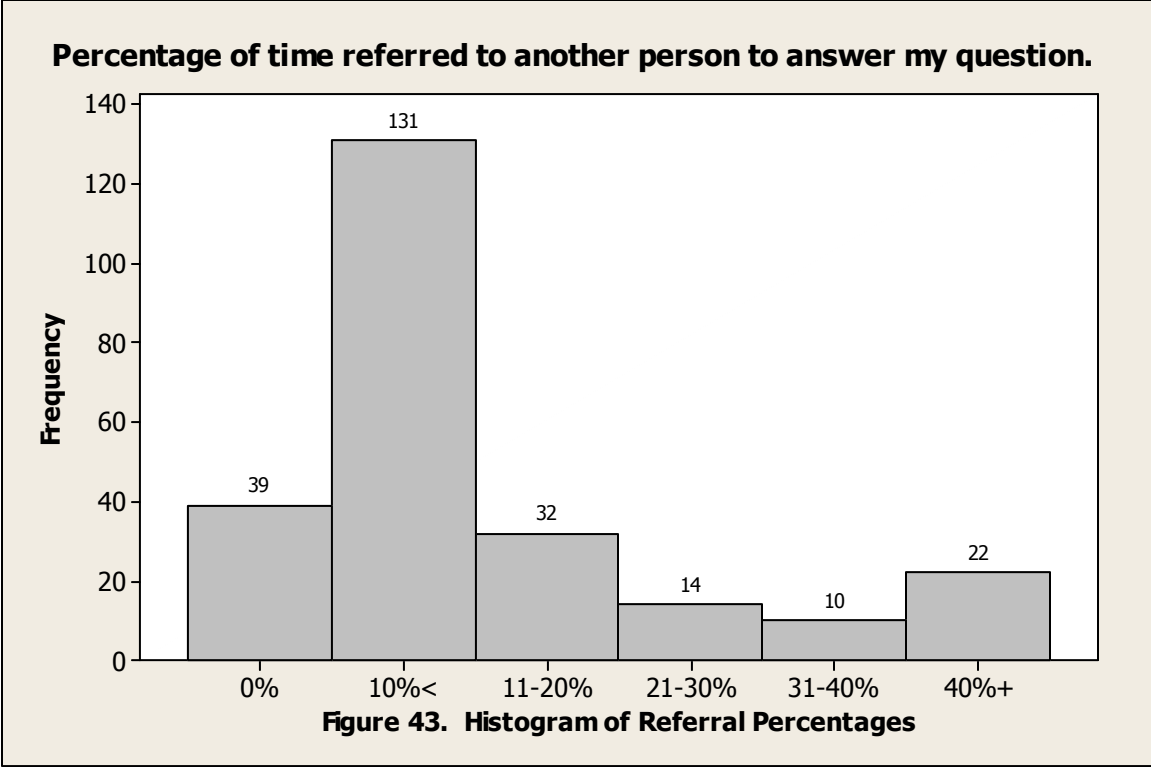
**Figure 39. Histogram of CSC Information Accuracy**

**The CSC reps have demonstrated the ability to address my questions/issues.**



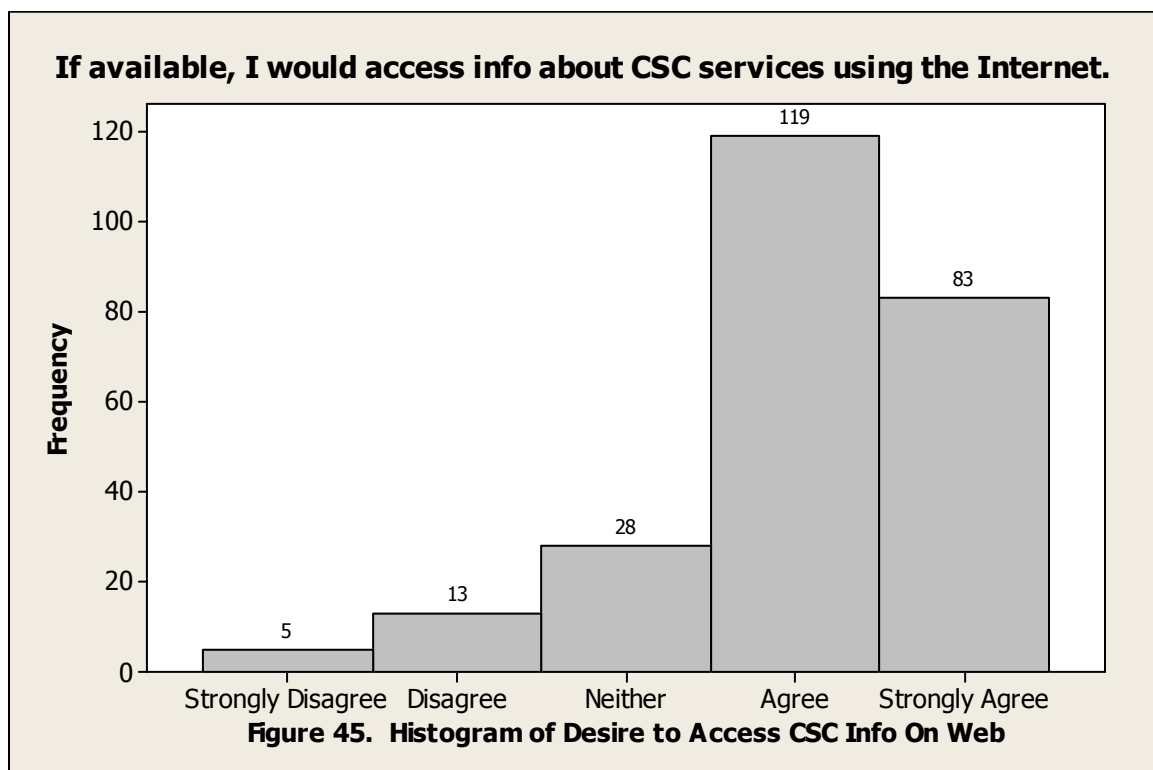
**Figure 40. Histogram of CSC Ability to Address Questions**



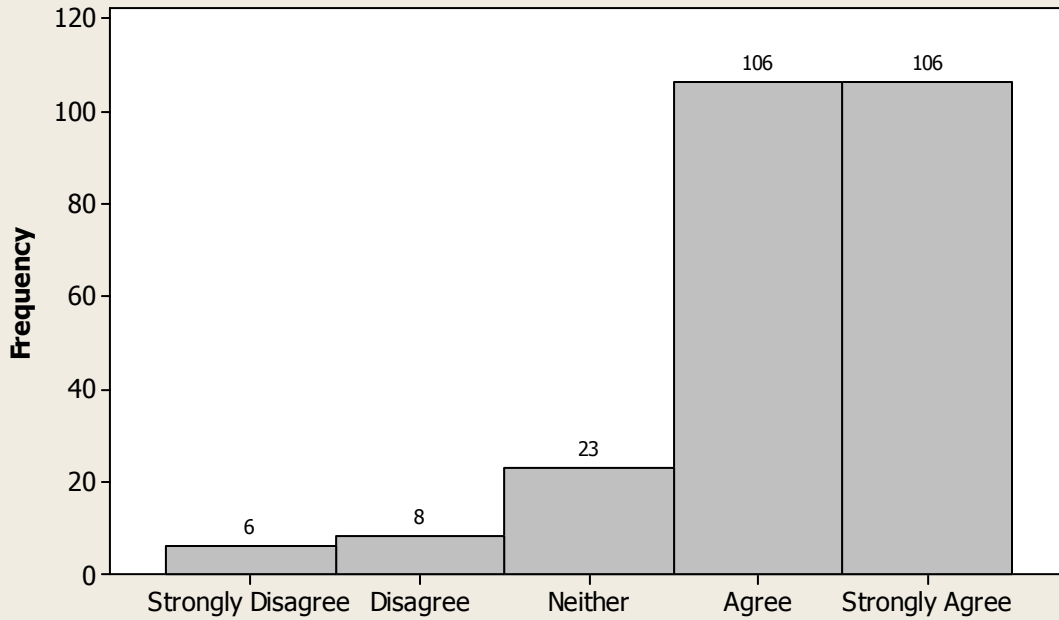


## Segment Five Highlights

This area of the survey addresses the desire to use CSC services online. Four questions are asked about the willingness of customers to use web-based services (Figure 45), and the value of being able to track the status of questions via a web page (Figure 46). The responses were consistent, and strongly indicated a favorable position on internet-based service options. Finally, respondents demonstrated a preference to have multiple options (Figure 48) when queried on how they would like to contact the CSC. The most favored means was via web page, followed closely by a desire for telephone access. Only 20% of the answers for that question indicated a desire for the ability to use an instant message (or “live chat”) capability.

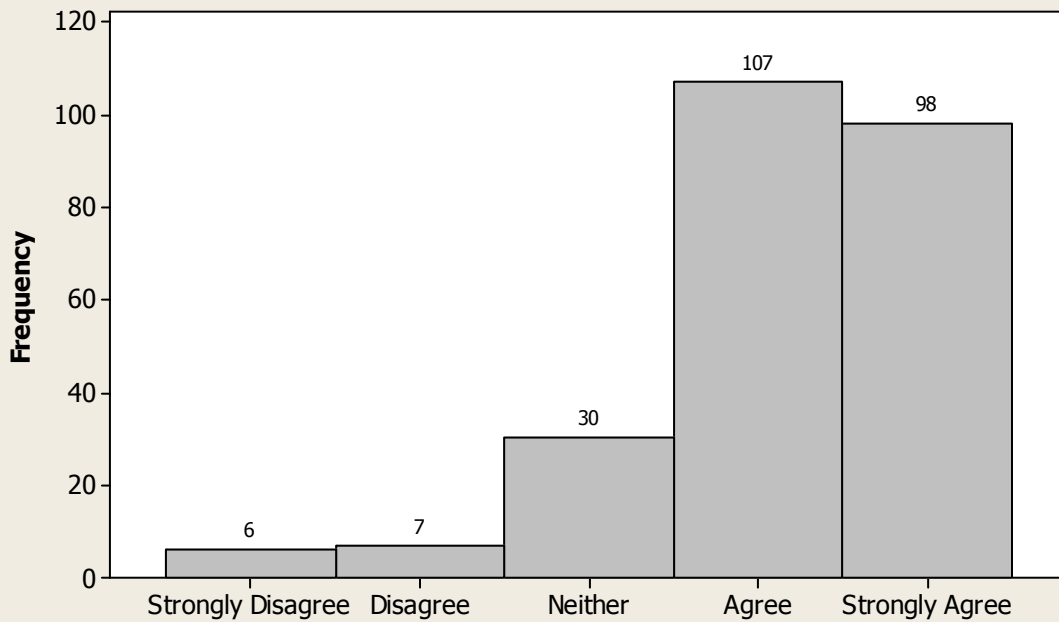


**The value of being able to track the status of a question via a web page.**

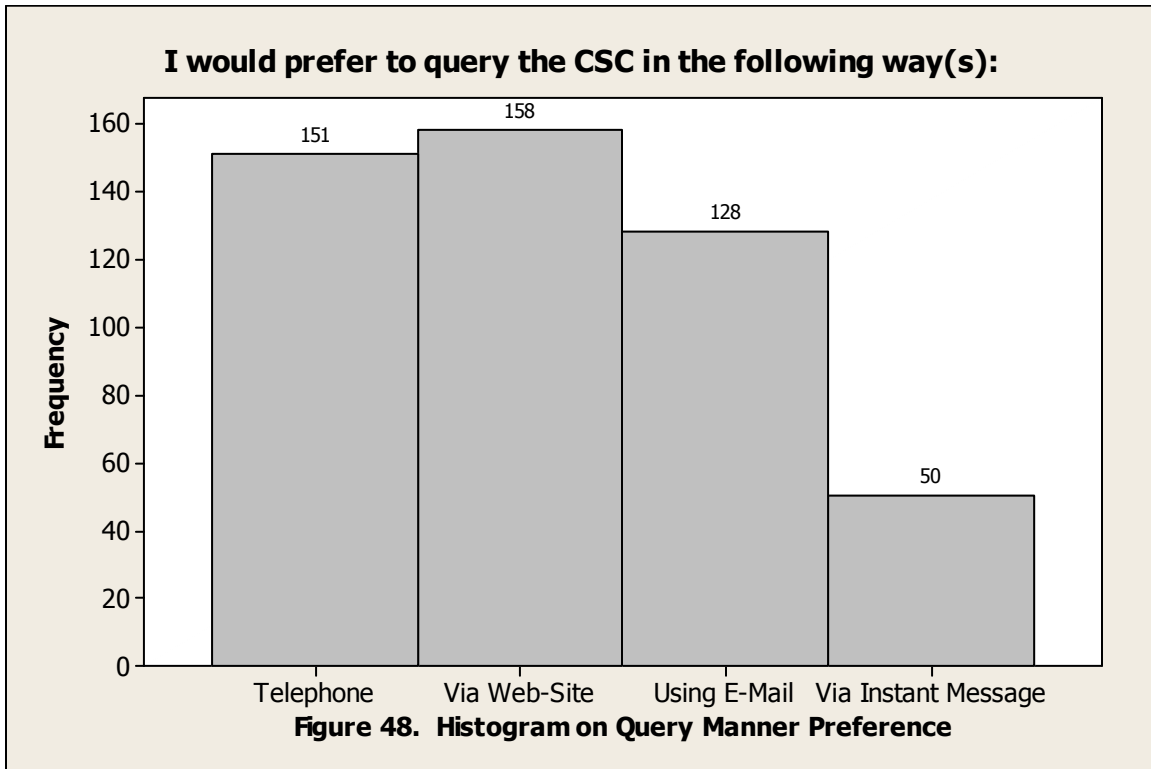


**Figure 46. Histogram of Value of Web Based Question Tracking**

**I would like a web-based service to be provided.**

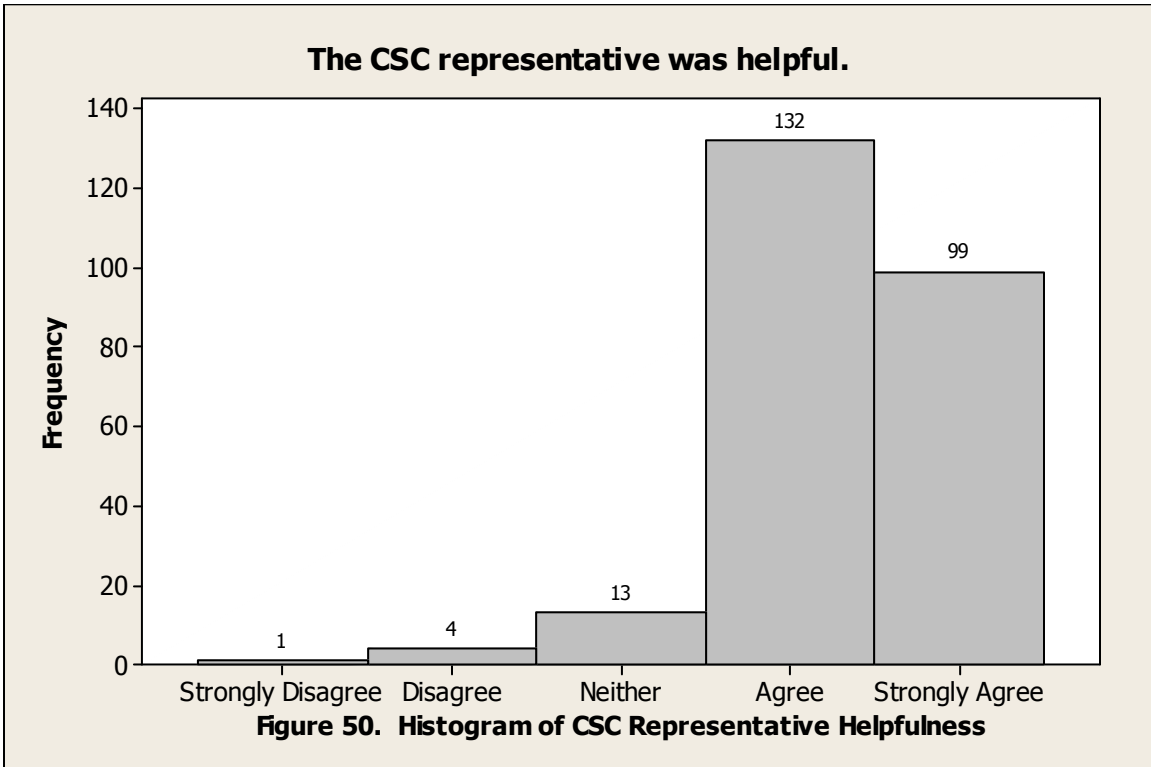
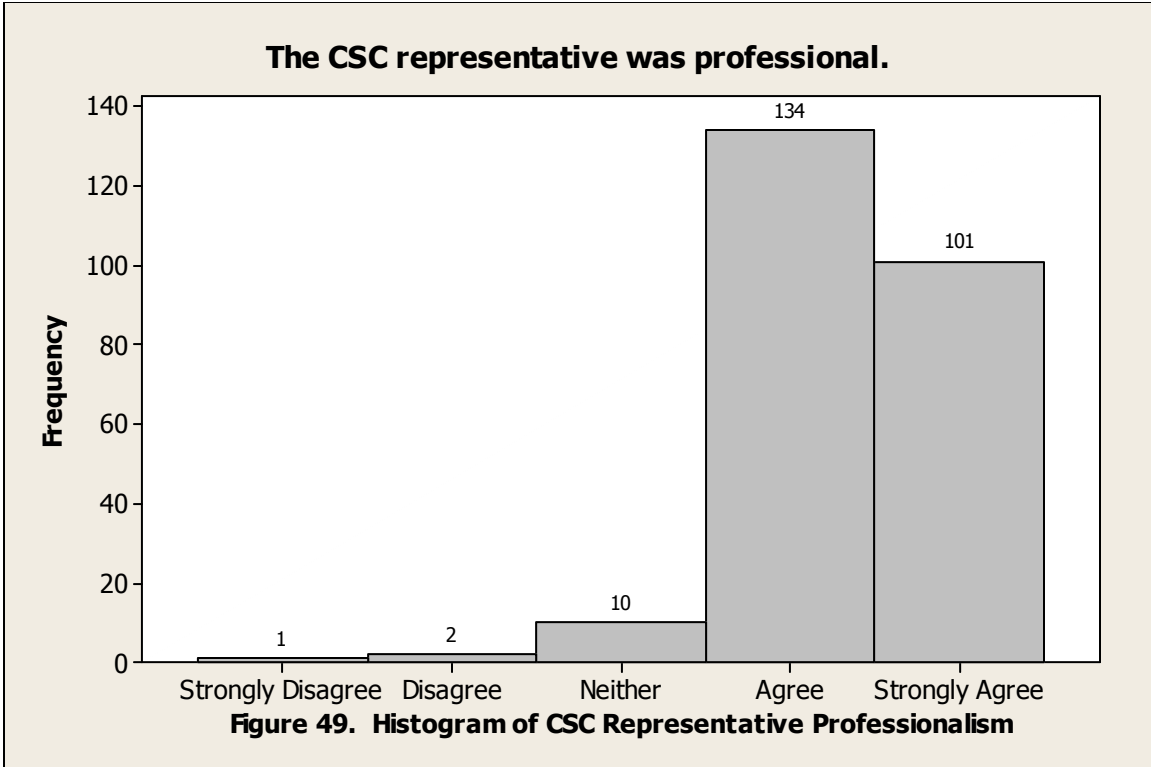


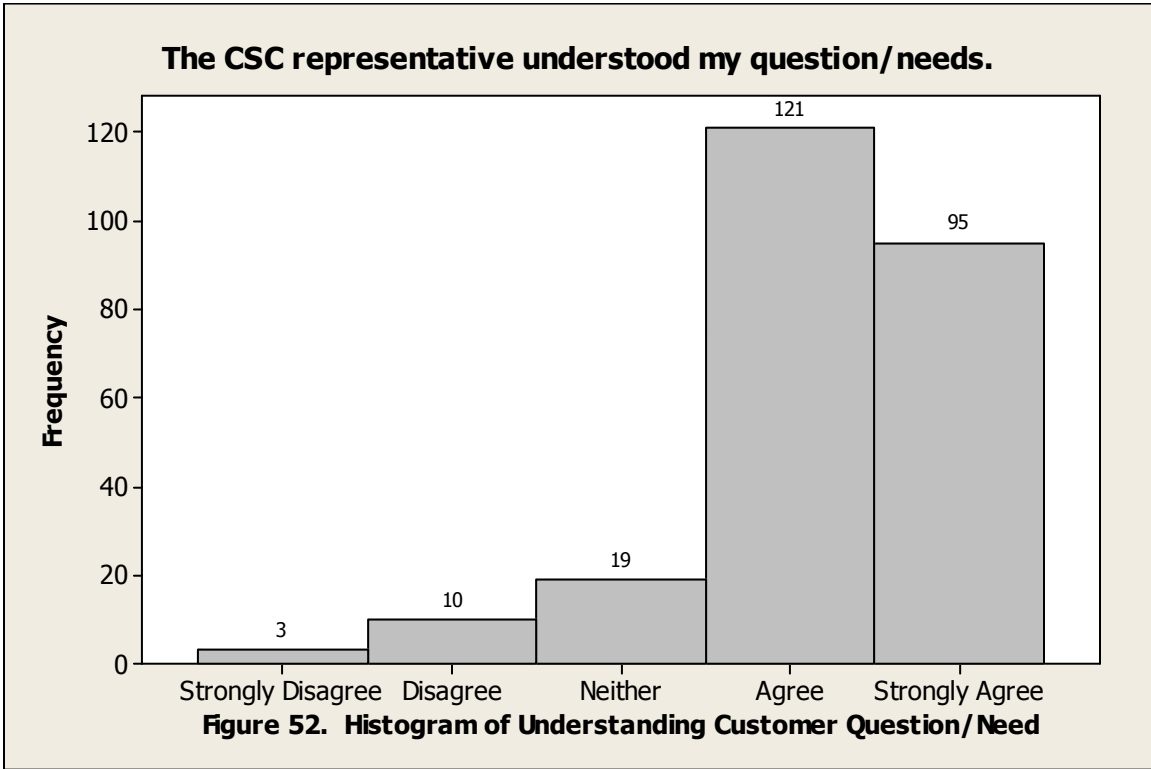
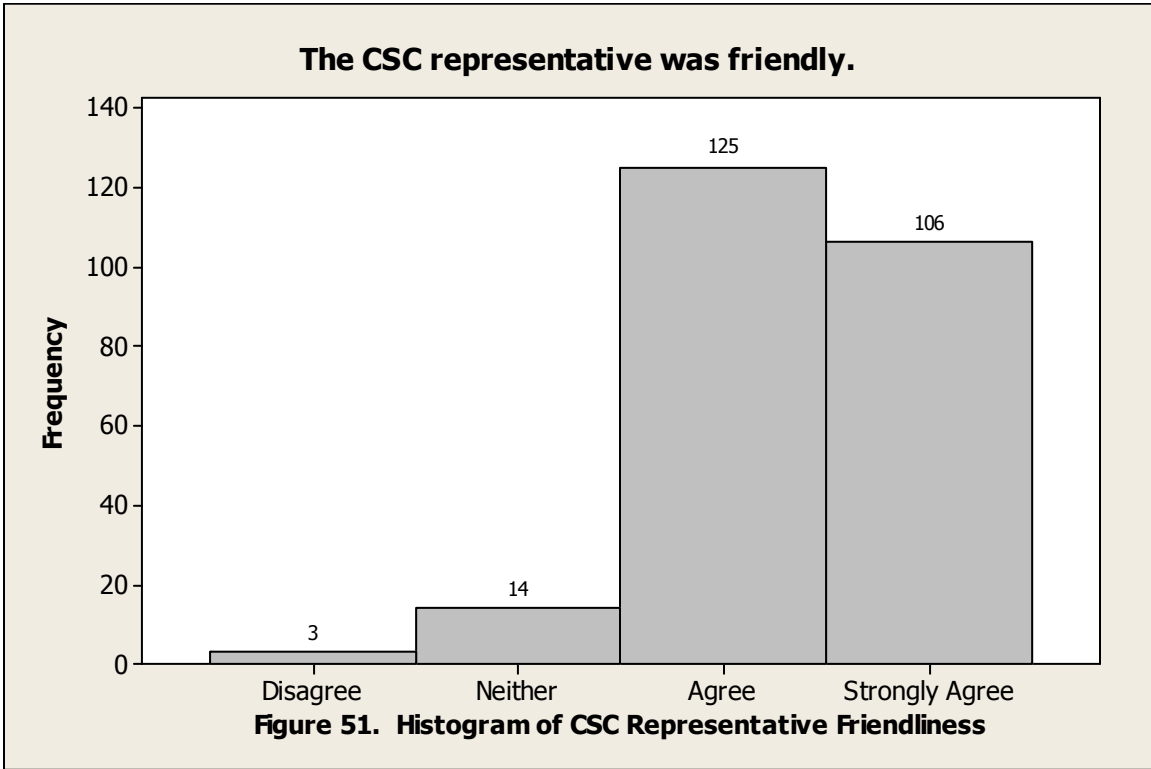
**Figure 47. Histogram of Desire for Web based Service**

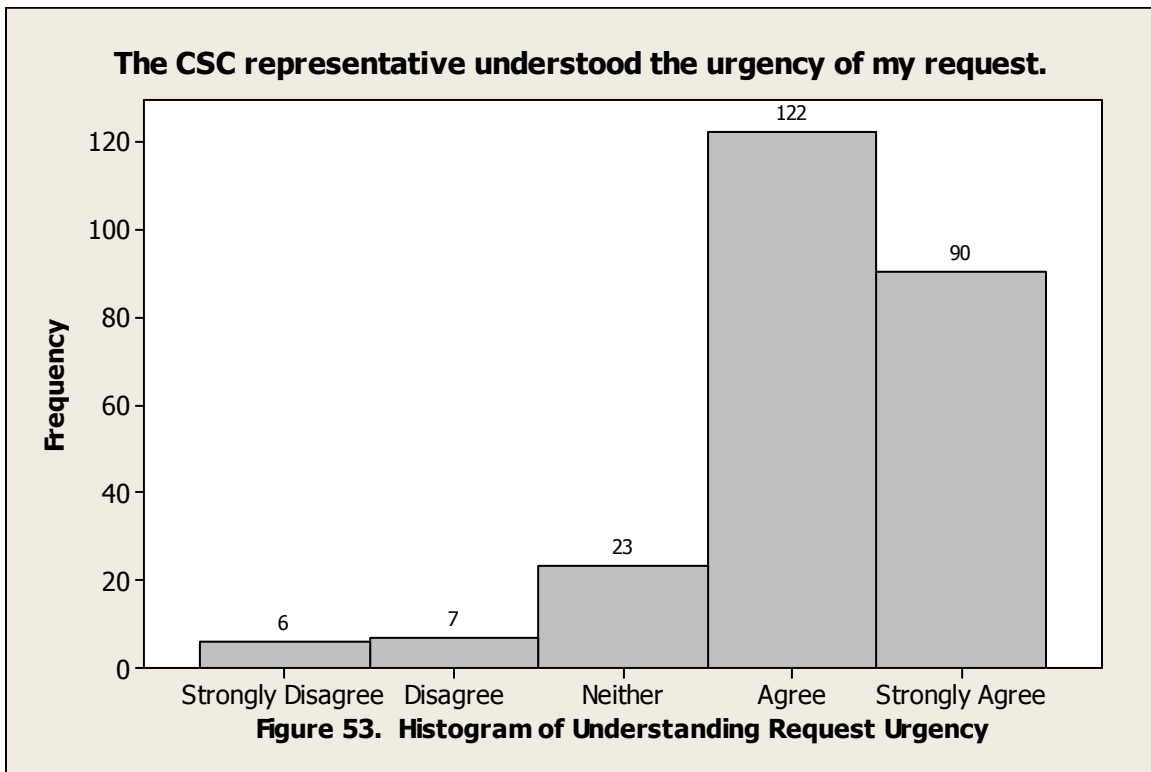


### Segment Six Highlights

This section of the survey has five questions, and deals specifically with customers’ satisfaction with CSC personnel. The results reflect a positive opinion of the CSC personnel, with an average of over eighty percent of the surveyed populace “agreeing” or “strongly agreeing” that the CSC representatives are professional (Figure 49), helpful (Figure 50), and friendly (Figure 51). Potential areas for further improvement can be found at Figures 52, where approximately 14% of respondents held moderate or lower opinions on whether CSC personnel understood their questions, and at Figure 53, which had a similar response on CSC personnel understanding the urgency of their requests.



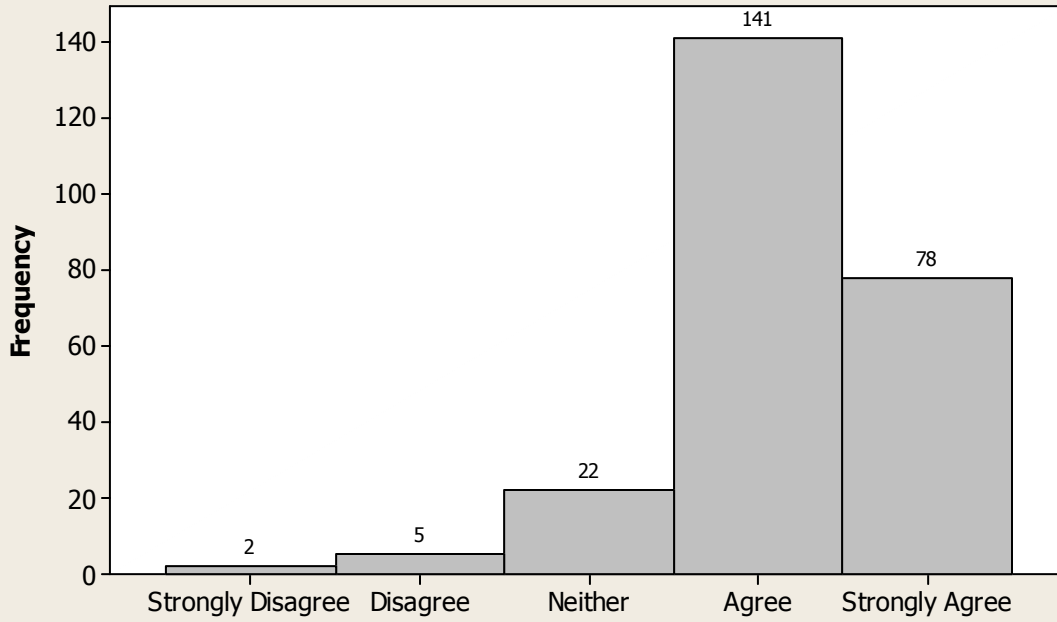




### Segment Seven Highlights

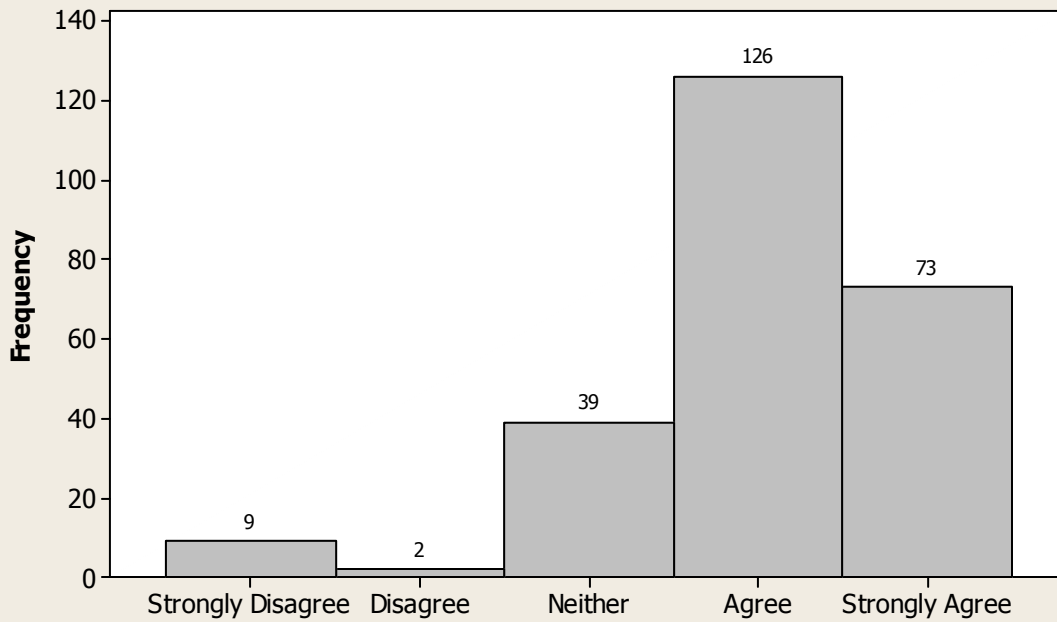
This section holds the key question, which is the overall satisfaction level with the quality of service. The results are a robust eighty-eight percent (Figure 54) “agreeing” or “strongly agreeing” that they are satisfied with the overall level of service. The mean score for the overall satisfaction rating is 4.15. This question is also used at the end of this chapter for the linear regression. Overall customer satisfaction is the “dependent” or “response” variable (McClave and others, 2005:694), and the questions from the next segment are used as the “predictor variables.”

**Overall satisfaction level with the CSC quality of service.**



**Figure 54. Histogram of Overall Satisfaction**

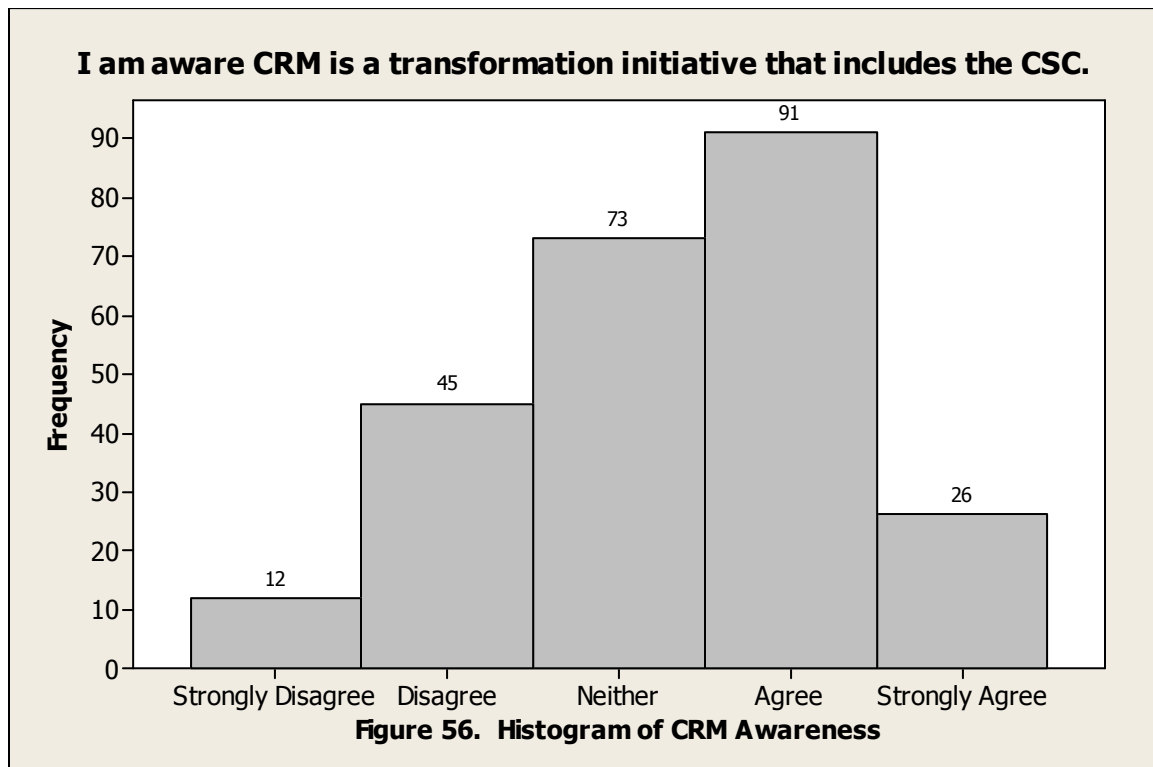
**If I had other options, I would still choose to get services from this CSC.**

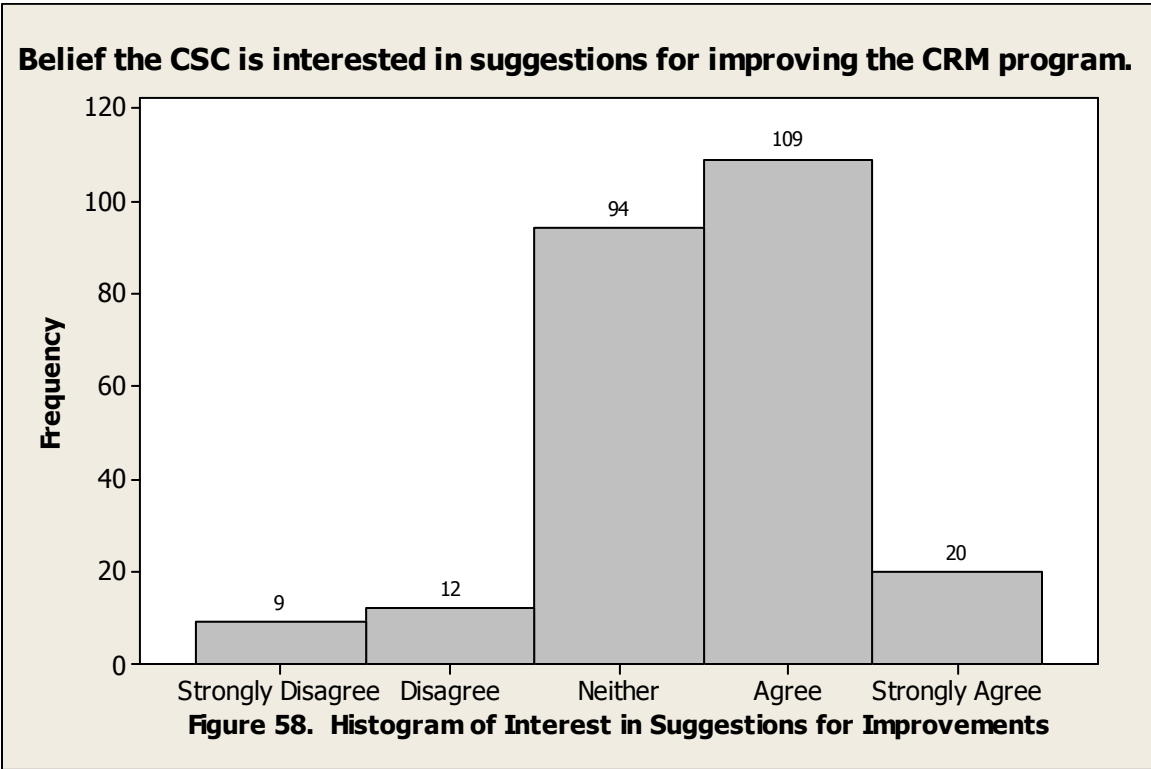
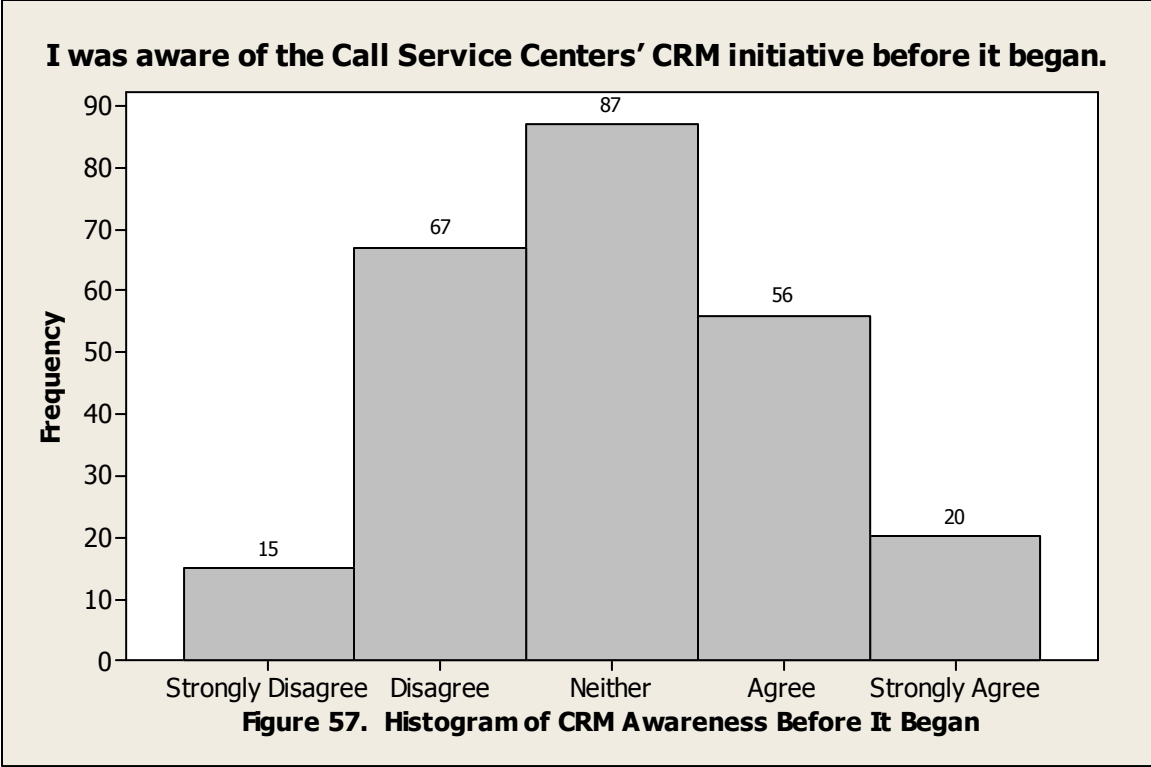


**Figure 55. Histogram of Desire to Use Other Options**

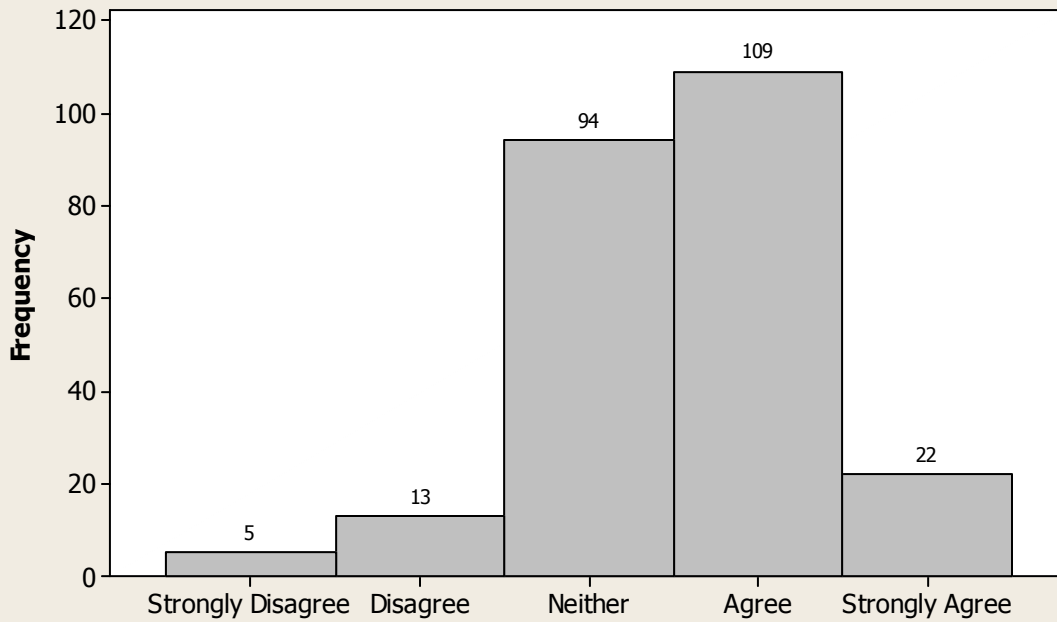
## Segment Eight Highlights

The final segment of the survey consists of seven questions, and deals with customer awareness and customer input on the overall AFMC CRM initiative. Figure 57 demonstrates that a more modest percentage (approximately 30%) of customers knew that CRM was an initiative before it began. Also noteworthy are Figures 58 and 59, which show lower customer confidence in the CSC's interest in their suggested improvements, or the implementation of their suggestions in CSC operations. Potential areas of improvement are also seen in Figures 61 and 62 respectively, which show that the customer does not feel strongly that they can see the results of their inputs over time, and the CSC has not continued to update them on the progress of their CRM initiatives.



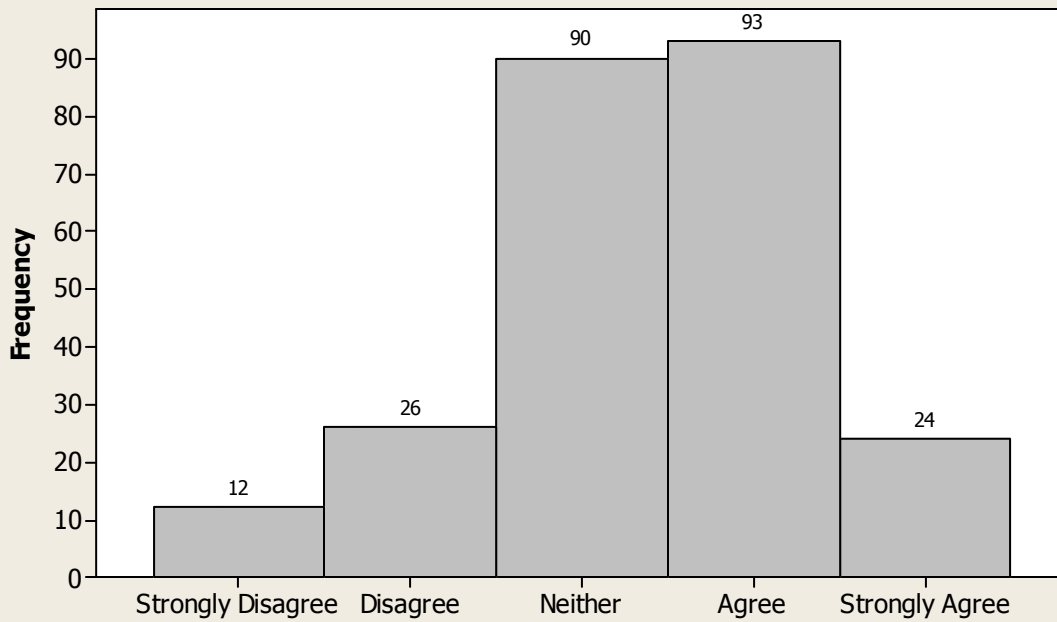


**Belief that suggestions have been used to improve their CSC operations.**



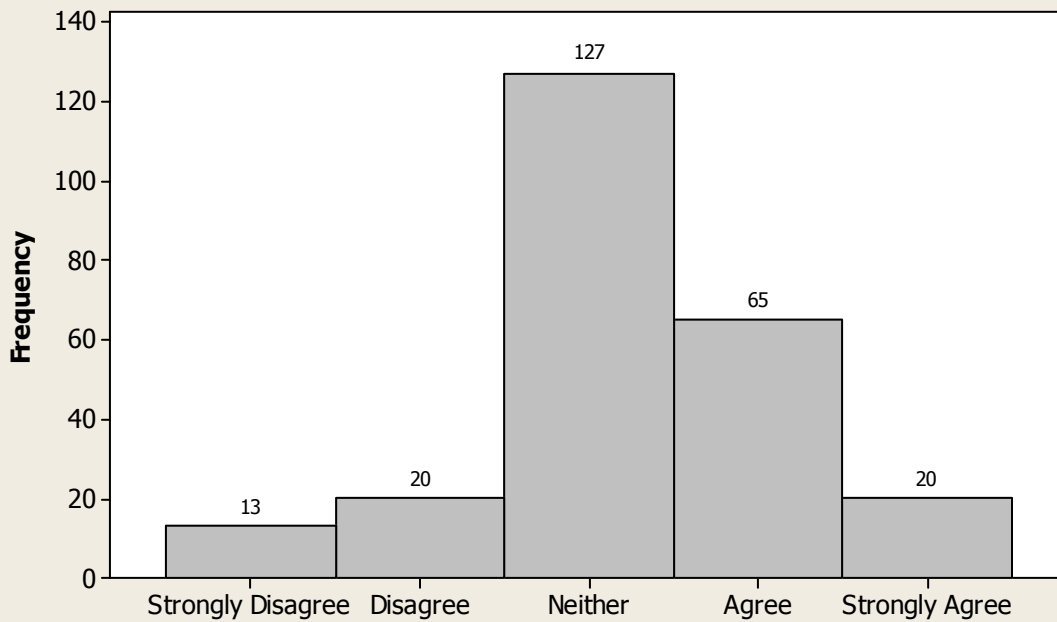
**Figure 59. Histogram of Suggestion Use to Improve Operations**

**The CSC has surveyed me for my input on improving their processes.**



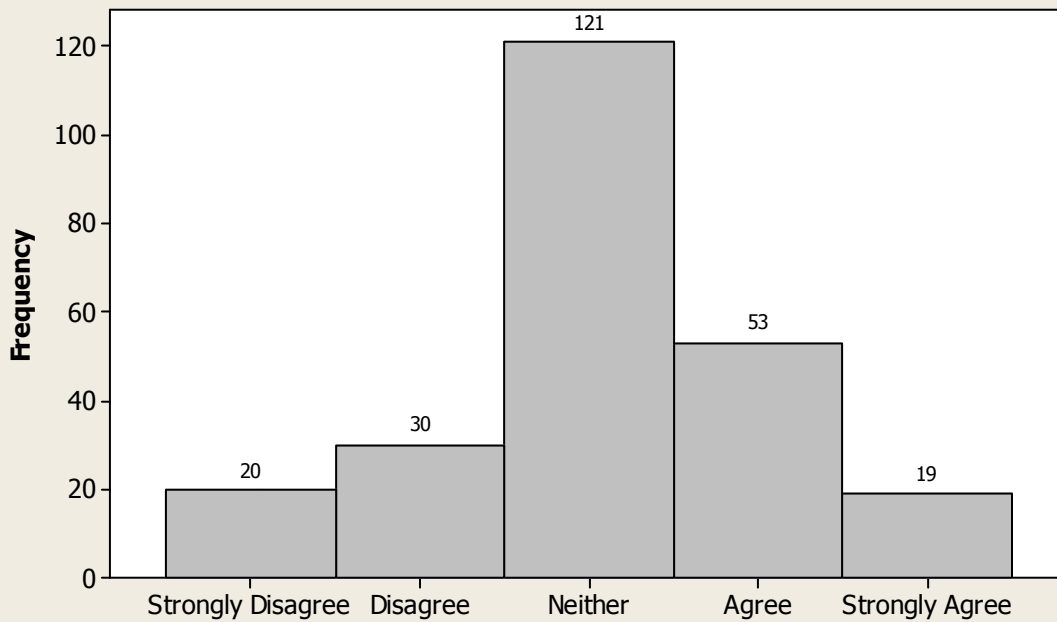
**Figure 60. Histogram of Previous Survey on Process Improvement**

**I can see the results of my inputs over time.**



**Figure 61. Histogram of Visibility of Inputs Over Time**

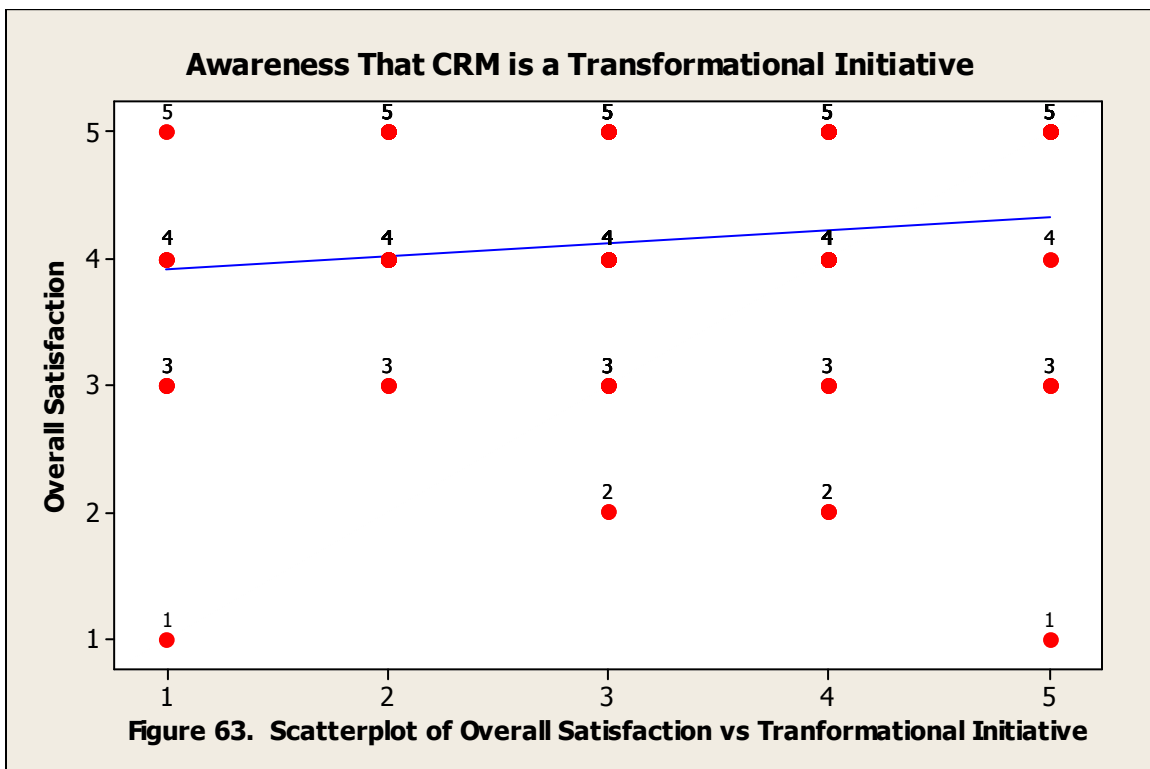
**The CSC has continued to update me on the progress of their CRM initiatives.**



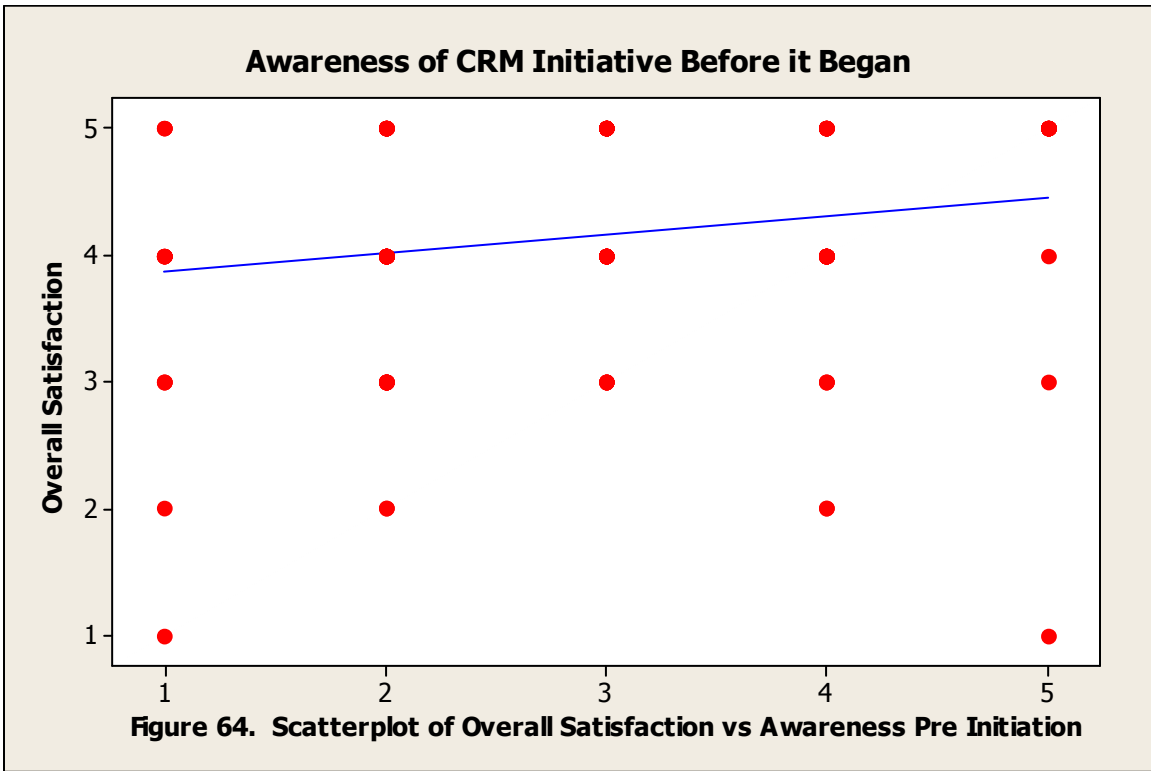
**Figure 62. Histogram of Customer Updates on CRM Initiative Progress**

## Linear Regression

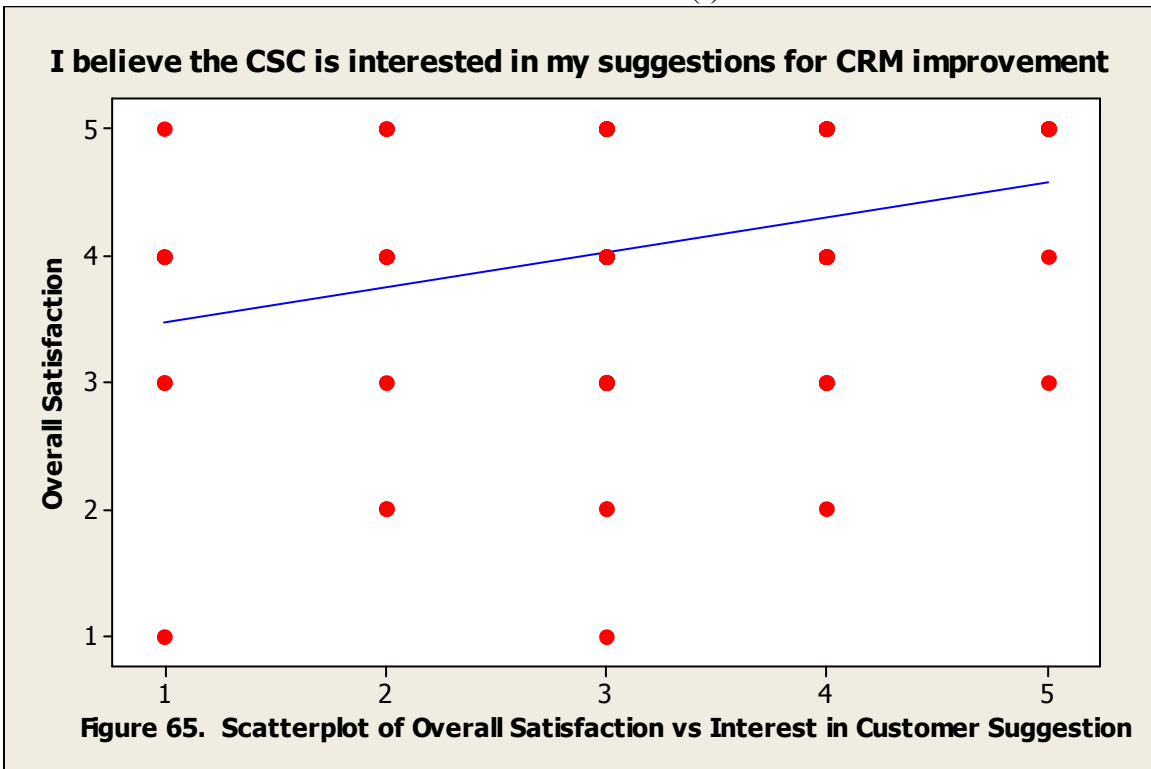
Linear regression is used to try to determine if any of the questions from Segment Eight show a linear relationship to the overall customer satisfaction level. “A bivariate relationship describes a relationship between two variables, X and Y. Scattergrams are used to graphically describe a bivariate relationship” (McClave and others, 2005:726). For this survey, overall satisfaction is the “Y” (response) variable, and each question from Segment Eight was used as a “X” (predictor) variable. There is a scattergram for each question, and a corresponding coefficient of correlation (“r”) is provided. The “coefficient of correlation is a measure of the strength of the linear relationship between the variables X and Y” (McClave and others, 2005: 726). If “r” has a value of one, then “Y” is a perfect predictor of “X”. Conversely, if “r” is at or near zero, there is little to no linear relationship between “X” and “Y”.



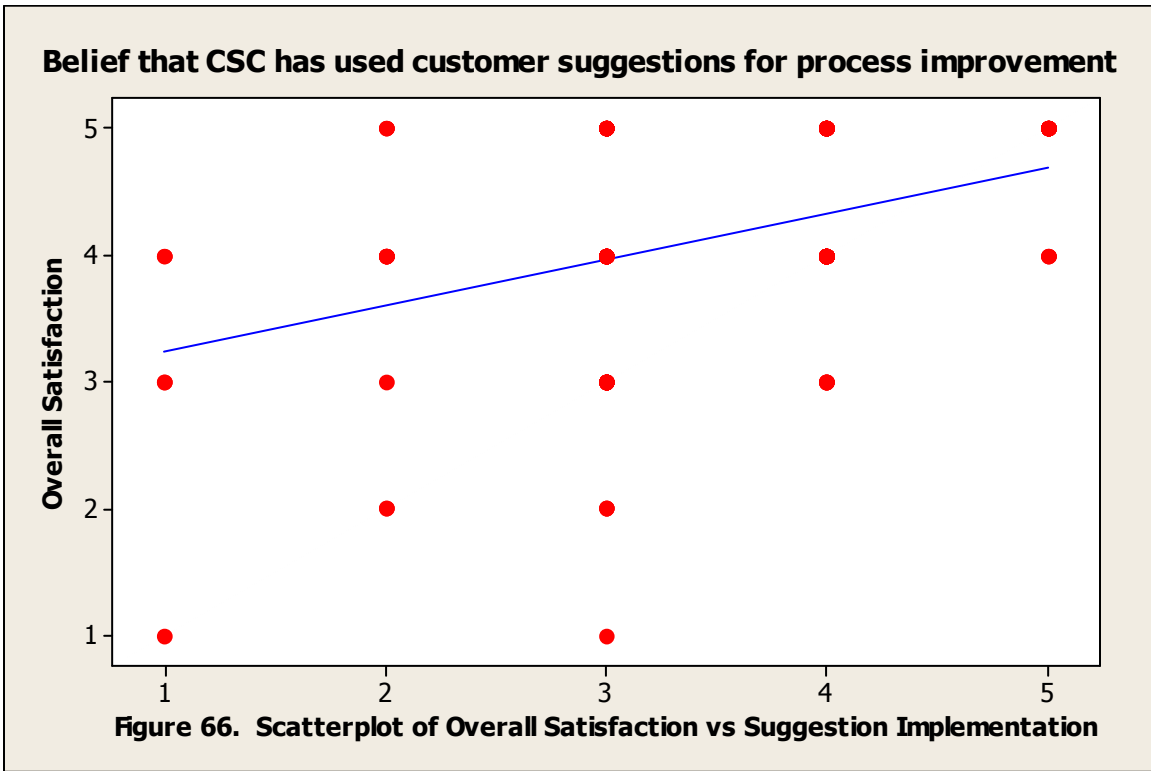
Coefficient of Correlation ( $r$ ) = .145



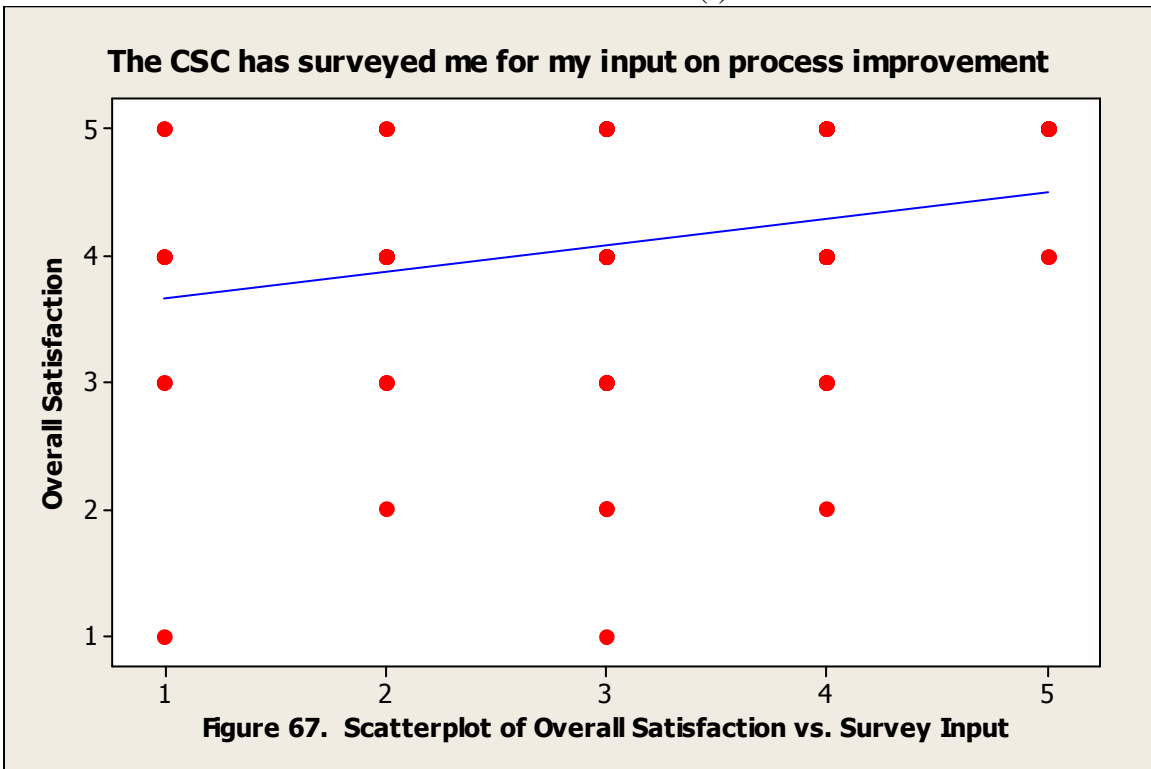
Coefficient of Correlation ( $r$ ) = .212



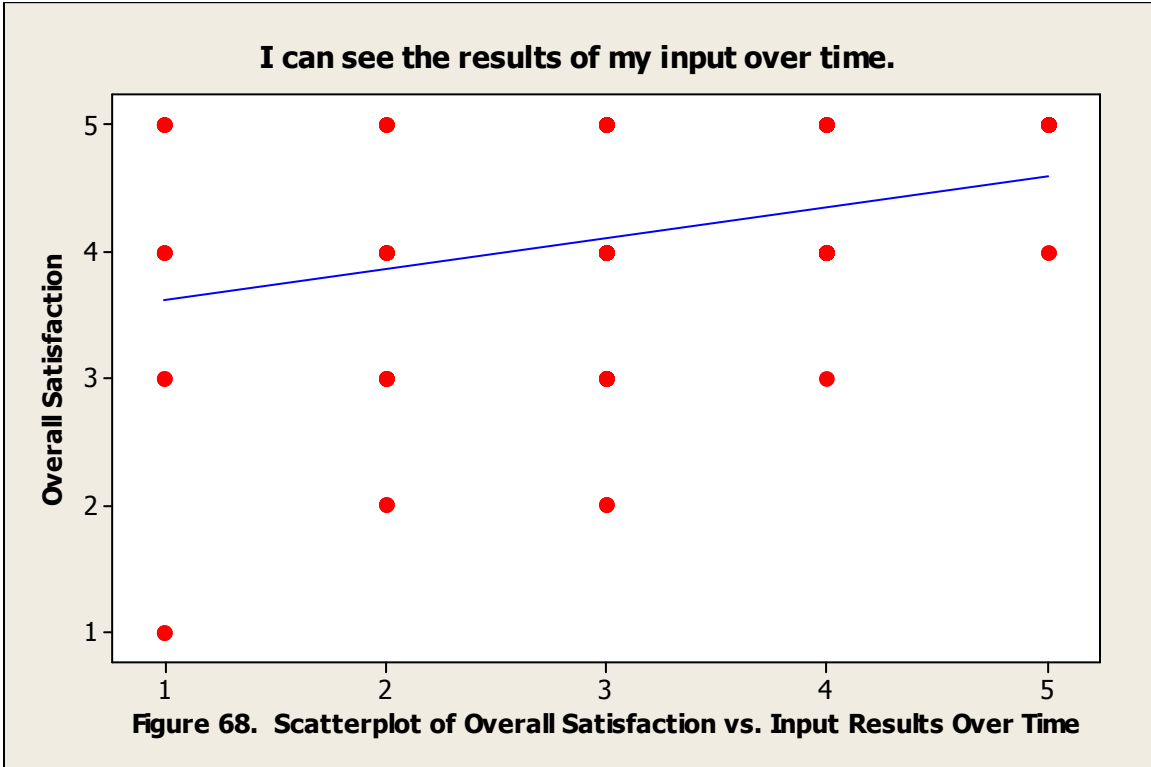
Coefficient of Correlation ( $r$ ) = .32



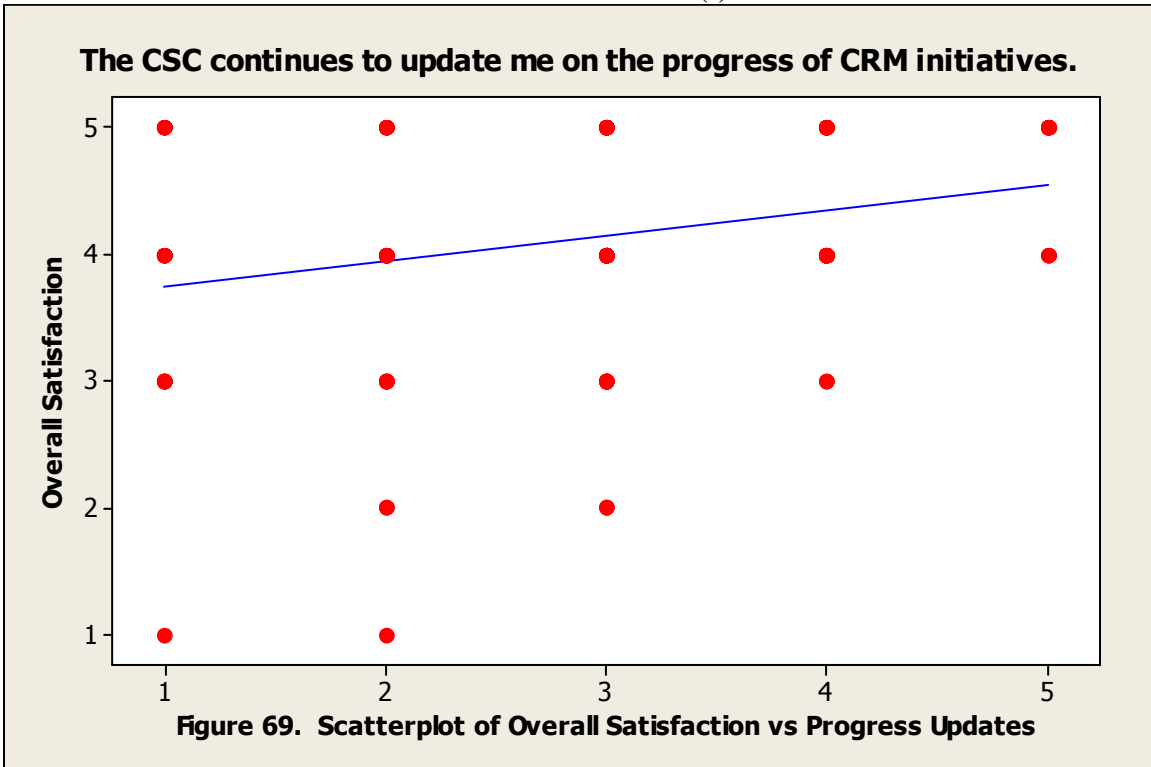
Coefficient of Correlation ( $r$ ) = .40



Coefficient of Correlation ( $r$ ) = .281



Coefficient of Correlation ( $r$ ) = .30



Coefficient of Correlation ( $r$ ) = .27

## **Linear Regression Results**

While none of the examples ended up with a tremendously high “r” value approaching “1”, there are still some important takeaways from this comparison. First, one could rank order the questions, and make changes based on the question with the highest “r” value. In these examples, the strongest statistical correlation is between the belief that the CSC uses customer suggestions to make improvements and overall customer satisfaction. When the belief is strong that this is occurring, there is a corresponding increase in the overall satisfaction score. That is not to say this is a casual relationship. It does however help guide AFMC in a systematic and academically grounded search of ways to further improve its CRM initiatives and service to its customers.

## **Comparison Between Deployed and Non-Deployed Personnel**

The data was also examined against the segmentation criteria proposed by Capt. White (Figure 16). For ease of comparison, three different groups (vice the identified twelve) were identified. There were deployed personnel, non-deployed high frequency/high recency personnel, and non-deployed low frequency/low recency personnel. The criteria that divided the high and low frequency/recency groupings was customers that reported using the CSCs “daily” or “once a week or more” were identified as being more recent users, and high frequency users (Figure 21). The data is presented by segment, and compares the mean values of the groups to see if there is a significant difference in the answers provided by each group. Critical to this analysis is the fact that

there were only five respondents that were deployed, so this small sample could easily be skewed by one or two strong responses.

	S2_Q1	S2_Q2	S2_Q3	S2_Q4
Deployed	1.200	4.200	1.800	1.000
Non Deployed Hi Freq	1.437	3.785	1.639	1.152
Non Deployed Low Freq	1.523	3.930	1.826	1.326

**Table 1. Comparison of Segment Two –Time Before Reaching a CSC Agent**

In comparing the answers from this segment, deployed respondents experienced a lower average hold time (Q1), and not surprisingly considered this an acceptable amount of time to wait for service (Q2). Their responses did not vary significantly on the whether or not they had hung up due while waiting (Q3) and they reported having the lowest percentage of call abandonment (Q4).

	S3_Q1	S3_Q2	S3_Q3	S3_Q4
Deployed	0.400	4.000	4.200	4.400
Non Deployed Hi Freq	0.627	4.000	3.703	4.291
Non Deployed Low Freq	0.767	4.081	3.779	3.942

**Table 2. Comparison of Segment Three – Call Resolution Parameters**

Table 2 shows more favorable responses from deployed customers as well, with lower average time to answer questions (Q1), and consistent satisfaction ratings as a result (Q2). Question 3 addressed first call resolution, and Question 4 focused on the importance of first call resolution to the customer. Both questions showed higher satisfaction from the deployed customers.

	S4_Q1	S4_Q2	S4_Q3	S4_Q4	S4_Q5	S4_Q6	S4_Q7	S4_Q8	S4_Q9
Deployed	4.400	4.400	4.200	3.800	4.200	4.000	4.200	1.400	4.200
Non Deployed Hi Freq	4.101	4.051	3.671	3.930	3.975	3.759	3.639	2.582	4.437
Non Deployed Low Freq	3.919	3.953	3.674	3.965	3.977	3.872	3.837	2.593	4.116

**Table 3. Comparison of Segment Four – Ability to Manage Inquiries**

Table 3 consistently shows higher satisfaction based on the responses of the deployed personnel. Of note, deployed customers reported higher scores on Question 3, which dealt with the CSC knowing their prior call history. Question 4 shows a slightly lower average score on the confidence of the accuracy of information received. Finally, Question 8 indicates that the deployed personnel are referred to other people for answers a lower percentage of the time.

	S5_Q1	S5_Q2	S5_Q3
Deployed	4.400	4.600	4.600
Non Deployed Hi Freq	4.063	4.241	4.152
Non Deployed Low Freq	4.012	4.093	4.093

**Table 4. Comparison of Segment Five – Desire for Web Services**

Table 4 shows a stronger preference on the part of deployed personnel to access information about the CSC via internet (Q1) and the ability to track the status of a question via a web page (Q2). Both answers might be explained by the time difference associated with being deployed, and therefore needing an alternate method of accessing information. Finally, Question 5 was excluded from this table, since it did not lend itself to numerical comparison.

	S6_Q1	S6_Q2	S6_Q3	S6_Q4	S6_Q5
Deployed	4.400	4.600	4.600	4.400	4.400
Non Deployed Hi Freq	4.323	4.291	4.335	4.177	4.089
Non Deployed Low Freq	4.349	4.302	4.337	4.186	4.209

**Table 5. Comparison of Segment Six – Satisfaction Level with CSC Personnel**

Table 5 depicts slightly higher satisfaction on the part of deployed personnel with respect to responses on professionalism (Q1), helpfulness (Q2), and friendliness (Q3). Deployed respondents also scored CSC personnel higher in terms of understanding the urgency of their request (Q5), which is indicative of better support for the warfighter.

	S7_Q1	S7_Q2
Deployed	4.400	4.000
Non Deployed Hi Freq	4.120	3.943
Non Deployed Low Freq	4.209	4.140

**Table 6. Comparison of Segment Seven – Overall Satisfaction with the CSC**

Table 6 shows that deployed personnel have a marginally higher overall satisfaction level (Q1) with the CSC, and like scores when queried on whether they would still choose to get services from the CSC, given other options (Q2).

	S8_Q1	S8_Q2	S8_Q3	S8_Q4	S8_Q5	S8_Q6	S8_Q7
Deployed	3.400	2.800	3.200	4.000	2.800	2.800	3.000
Non Deployed Hi Freq	3.335	3.063	3.456	3.430	3.443	3.272	3.108
Non Deployed Low Freq	3.221	2.884	3.535	3.663	3.256	3.198	3.047

**Table 7. Comparison of Segment Eight – Awareness/Input on CRM Initiative**

Table 7 shows the greatest disparity in answers between the deployed and non-deployed respondents. Question 4 shows deployed customers have a much stronger belief that the CSC uses customer input to improve their operations. At the same time,

deployed personnel had notably lower responses on whether they had been surveyed for improvement from the CSC (Q5). With this in mind, the lower scores pertaining to whether they could see the results of their input over time (Q7) make sense.

## **Summary**

This chapter detailed the results of the survey that was conducted. The chapter began with a brief overview of the survey demographics. Then there was a quick overview of the results from each segment of the survey. Histograms detailing the results of each question in the survey were also provided. Next, there was a section that covered linear regression between the overall satisfaction rating and each of the questions from Segment Eight. Finally, there was a comparison of mean scores between the deployed personnel, non-deployed high frequency/high recency personnel, and non-deployed low frequency/low recency personnel.

The next chapter presents the conclusions of this research and recommendations for AFMC.

## **V. Conclusions**

### **Chapter Overview**

This chapter summarizes the findings of this research. It provides answers to the investigative questions from Chapter One, in addition to providing recommendations to AFMC for future research directions. The chapter concludes with a summation of the research study.

### **Findings**

There were nine investigative questions posed at the beginning of the research, four of which (questions six through nine) focused on answering the overall research question of “what are AFMC’s current external customer relationship management issues?” The sixth investigative question was “how do CRM initiatives and incentives vary in the public and private sectors?” The biggest difference found in the research was the motivation behind the two types of initiatives. In the private sector, the impetus is traditionally a combination of prosperity and survival, with easily identifiable measures of success, such as market share and customer retention. Public sector motivation differed in that change was generally driven by rising consumer expectations. The two types of initiatives also vary in how they are measured, which is addressed later when discussing the third investigative question.

The seventh investigative question was “what is the best way to measure or capture this data?” An examination of four like public agencies resulted in the discovery of common themes, to include categorization of your customers, assessing their needs, implementing steps to address these needs, and then measuring progress. The cyclical

nature of these strategies lends themselves to the development of an instrument that could establish baseline results, and then be reused over time. This, coupled with an AFMC precedent on using survey methodology made the continued use of a survey the best instrument for this research.

The eighth investigative question was “what is important to AFMC’s external customers?” The research identified three key issues, the first being first call resolution. Figure 35 demonstrates that over eighty percent of the external customers have deemed this to be critical. Additionally, AFMC’s customers have shown a strong desire for web based services (Figures 45 and 47), to include the ability to track the status of open tickets (Figure 46). Finally, the correlation analysis shed light on the importance of the perception that the CSCs were interested in suggestions from the external customers, and that the CSC were implementing these customer suggestions (Figure 65 and 66).

The ninth and final investigative question was “how can these customer issues be applied to AFMC CRM?” AFMC appears to be performing admirably with respect to the first call resolution, with seventy-five percent responding that their issues (Figure 34) are resolved on the first call. In terms of web based services, AFMC has already expressed interest in expanding their web offerings, but it is important to realize that the survey results indicate the customer wants web services in addition to, and not in lieu of, existing services. Finally, the coefficients of correlation should provide a logical starting point for AFMC if it wants to attempt to further improve its overall satisfaction rating in relation to involving their customers input in further CRM efforts.

## **Recommendations**

As mentioned in Chapter One, AFMC self-identified the fact that they overlooked establishing a baseline customer satisfaction value before they began implementing changes in their CRM program. The problem with this is that without a baseline, they cannot measure their customer's reaction (either positive or negative). To rectify this, the recommendation is to use the results of this survey as a baseline value of customer satisfaction, with respect to their CRM initiative.

The second recommendation is for AFMC to examine efforts to implement more suggestions from their customers. Segment Eight of the survey showed tangible evidence that the customer values the opportunity to make suggestions, and ties their overall satisfaction to the belief that their suggestions are being implemented. Figure X is an example of the current survey that customers take following an interaction with the CSCs. This survey focuses on the most recent interaction, and does not actively solicit suggestions for improvement. One might argue that the opportunity is presented by having a section for open comment, but that still leaves some room for improvement. Finally, this would seem to be a simple modification to an existing instrument, with the potential for big payoff with little additional investment.

SURVEY ENTRY	
5-EXCELLENT 4-GOOD 3-FAIR 2-POOR 1-UNSATISFACTORY	
1. How would you rate the services provided by the OO-ALC Customer Service Center agent who answered your request?	<input checked="" type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
2. How was the accuracy of the information provided to you?	<input checked="" type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
3. How would you rate the agent's understanding, helpfulness, and courtesy towards your problem?	<input checked="" type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
4. How was the timeliness in answering your question or resolving your problem?	<input checked="" type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
5. How would you rate your overall experience in dealing with the Customer Service Center?	<input checked="" type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
<b>REMARKS</b> (Please add pertinent remarks to this incident only.)	
<small>( You may enter up to 2500 characters. )</small>	
Thanks again for the great support!	

**Figure 70. Current AFMC Customer Survey (Vogt, 2006:13)**

The third recommendation is for AFMC to amend its current customer survey (Figure 70) to be more robust. While the survey used in this research would be overkill on a daily basis, the above survey still has some room for improvement in garnering valuable information from the customer. In addition to potentially adding more questions soliciting suggestions from the customer, some of the existing questions might provide more information if they were asked in a different manner. An example would be Question Three. In its current form, it might be construed as confusing, since the customer has one area to comment on three aspects. While there is value in brevity, one still wants to get as much information as they can from the customer. Since this is an existing tool, minor modification is negligible in terms of time and cost.

The fourth recommendation is to advise against any additional surveys in the near future. This recommendation is based on a question raised during the administration of this research survey. The respondent asked why they were being surveyed again, since they had just taken a like survey. As it stands, some of the existing customer base might

have been surveyed three times this year, counting the initial Warner Robins survey, this research survey, and the current CSC customer survey. It is very possible to dissuade participation from a valuable source due to being inundated with questions.

The fifth and final recommendation is for AFMC to consider using a standardized customer satisfaction measure, like the ACSI. As CRM initiatives blossom throughout the Air Force, it is inevitable that newer programs might benchmark off of AFMC's example. With that in mind, each future initiative might allocate valuable time and resources developing similar individualized measurement instruments. While there is definite value in said instrument, the potential savings in time and resources using a commonly accepted tool might sway this decision. Additionally, a standardized instrument allows for more accurate comparison between like organizations. As a forerunner in the CRM arena, AFMC's adoption of this recommendation might pay substantial dividends across the Air Force in the future.

### **Research Summary**

The purpose of this research was to assist HQ AFMC in furthering their emerging CRM initiatives. The overall research question was "what are AFMC's current external customer relationship management issues?" This research was helpful in identifying the desire for additional web-based services, as well as evidence for more customer interaction in the ongoing development of CRM initiatives. In conclusion, AFMC now has some new leads and potential directions to advance their understanding and further their implementation of their CRM program.

## Appendix A: Web-Based Survey Questions

### Segment One - Frequency of usage/Demographics

-----  
1. The primary Customer Service Center (CSC) that I work with is at \_\_\_\_\_.

Tinker AFB  
Warner Robins AFB  
Hill AFB

2. How often do you use the Customer Service Centers (formerly the MICAP Control Centers)?

Daily  
Once a week or more  
Once a month or more  
Several times during the past year  
Other

3. How long have you been using the CSC services?

Less than 1 month  
1 month to 6 months  
More than 6 months

4. I am at a deployed location.

Yes  
No

5. My deployed location is supporting the warfighting AOR.

Yes  
No  
N/A

6. My duty AFSC/job series is within

Acquisition/Program Management  
Supply  
Inventory Management  
Equipment Management  
Maintenance  
Transportation  
Financial Management  
Other

7. My calls are normally in support of the \_\_\_\_\_

Weapon System  
Ground or Training System

Program  
Project  
Multiple systems and/or programs

8. What were your reasons for the majority of your calls to CSC?

Technical inquiries  
Stock Number Inquiries  
Source Stock Numbers  
Input Requisitions  
Modify Requisitions  
Request Cancellations  
Shipment Status Requests  
MICAPs  
PDM MICAPs  
Other  
Please specify other

Segment Two - Length of time before reaching a Customer Service Center (CSC) agent

-----  
1. On average, how long do you hold before you speak with a customer service representative?

0-1 minutes  
1-2 minutes  
2-3 minutes  
3-4 minutes  
4-5 minutes  
5-6 minutes  
6+ minutes

2. This is an acceptable amount of time to wait for service.

1 2 3 4 5  
Strongly Disagree Disagree Neither Agree Strongly Agree

3. I have hung up due to the length of time that was required by the CSC to answer my call.

Yes  
No

4. I hang up approximately \_\_\_\_\_ of the time due to the length of time required to answer my call.

- 0-10%
- 11-20%
- 21-30%
- 31-40%
- More than 40%

Segment Three - Call resolution parameters

-----

1. What is the average length of time you are on the phone with a customer service representative?

- Less than 5 minutes
- 5 to 9 minutes
- 10 to 19 minutes
- 20 to 29 minutes
- 30 to 39 minutes
- 40 minutes or longer

2. I am satisfied with the average time it takes the CSC to answer questions.

- 1 2 3 4 5
- Strongly Disagree Disagree Neither Agree Strongly Agree

3. My issues are normally resolved with one phone call.

- 1 2 3 4 5
- Strongly Disagree Disagree Neither Agree Strongly Agree

4. It is critical to me that my issue is resolved with one phone call.

- 1 2 3 4 5
- Strongly Disagree Disagree Neither Agree Strongly Agree

Segment Four - Ability to Manage Inquiries and Provide Support (Service Level)

Use the following scale to answer these questions:

1 2 3 4 5

Strongly Disagree Disagree Neither Agree Strongly Agree

-----

1. I am aware of the CSC services available to me.

1 2 3 4 5

2. CSC representatives were available at convenient times.

1 2 3 4 5

3. When I called the Customer Service Center (CSC), the customer service representative knows my prior call history.

1 2 3 4 5

4. I am confident about the accuracy of the information provided by the CSC.

1 2 3 4 5

5. The CSC representatives have demonstrated the ability to address my questions/issues.

1 2 3 4 5

6. The CSC delivers answers when they say they will.

1 2 3 4 5

7. If available, I would communicate with the CSC via email at least part of the time.

1 2 3 4 5

8. In order to answer my question, the CSC representatives refer me to another person approximately \_\_\_\_\_ of the time.

0%

Less than 10%

11-20%

21-30%

31-40%

More than 40%

9. It is important to me for the CSC to keep me informed on the status of open tickets.

1 2 3 4 5

Segment Five - Web Services (Awareness of existing services, and desire/drive to use them)

-----

Use the following scale to answer these questions:

1 2 3 4 5

Strongly Disagree Disagree Neither Agree Strongly Agree

-----

1. If available, I would access information about CSC services using the Internet.

1 2 3 4 5

2. It would be valuable to me to be able to track the status of a question via a web page

1 2 3 4 5

3. I would like a web-based service to be provided.

1 2 3 4 5

4. I would prefer to query the CSC the following way(s). (Please mark all answers that apply.)

By Telephone

Through a Web-Site

Using Email

Through an Instant Messaging Capability

Segment Six – Satisfaction Level with CSC Representatives

-----

Use the following scale to answer these questions:

1 2 3 4 5

Strongly Disagree Disagree Neither Agree Strongly Agree

-----

1. The CSC representative was professional.

1 2 3 4 5

2. The CSC representative was helpful.

1 2 3 4 5

3. The CSC representative was friendly.

1 2 3 4 5

4. The CSC representative understood my question/needs.

1 2 3 4 5

5. The CSC representative understood the urgency of my request.

1 2 3 4 5

Segment Seven – Overall Satisfaction with the Customer Service Center (CSC)

---

Use the following scale to answer these questions:

1 2 3 4 5

Strongly Disagree Disagree Neither Agree Strongly Agree

---

1. Please rate your overall satisfaction level with the CSC quality of service.

1 2 3 4 5

2. If I had other options, I would still choose to get services from this Customer Service Center.

1 2 3 4 5

Segment Eight – Awareness and Customer Input on CRM Initiative

---

1 2 3 4 5

Strongly Disagree Disagree Neither Agree Strongly Agree

---

1. I am aware Customer Relationship Management (CRM) is a transformation initiative that includes the CSC.

1 2 3 4 5

2. I was aware of the Call Service Centers' CRM initiative before it began.

1 2 3 4 5

3. I believe the CSC is interested in my suggestions for improving their CRM initiative.

1 2 3 4 5

4. I believe the CSC has used suggestions from their customers to improve their CSC operations.

1 2 3 4 5

5. The CSC has surveyed me for my input on improving their processes.

1 2 3 4 5

6. I can see the results of my inputs over time.

1 2 3 4 5

7. The CSC has continued to update me on the progress of their CRM initiatives.

1 2 3 4 5

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<b>REPORT DOCUMENTATION PAGE</b>				<i>Form Approved</i> <i>OMB No. 074-0188</i>	
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<b>1. REPORT DATE (DD-MM-YYYY)</b> 01-06-2006		<b>2. REPORT TYPE</b> Master's Thesis		<b>3. DATES COVERED (From - To)</b> May 2005 - Jun 2006	
<b>4. TITLE AND SUBTITLE</b>  HEADQUARTERS AIR FORCE MATERIAL COMMAND CUSTOMER RELATIONSHIP MANAGEMENT				<b>5a. CONTRACT NUMBER</b>	
				<b>5b. GRANT NUMBER</b>	
				<b>5c. PROGRAM ELEMENT NUMBER</b>	
<b>6. AUTHOR(S)</b>  Sullivan, Christopher B., Major, USAF				<b>5d. PROJECT NUMBER</b>	
				<b>5e. TASK NUMBER</b>	
				<b>5f. WORK UNIT NUMBER</b>	
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(S)</b> Air Force Institute of Technology Graduate School of Engineering and Management (AFIT/EN) 2950 Hobson Street, Building 642 WPAFB OH 45433-7765				<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>  AFIT/ILM/ENS/06-17	
<b>9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> AFMC/A4SP Attn: Mr. Tom Justice 4375 Chidlaw Road WPAFB OH 45433- 5006				<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b>	
				<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>	
<b>12. DISTRIBUTION/AVAILABILITY STATEMENT</b>  APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.					
<b>13. SUPPLEMENTARY NOTES</b>					
<b>14. ABSTRACT</b> <p>The purpose of this research was to determine what was important to Air Force Material Command's (AFMC) external customers. Specifically, this project sought to answer how customer relationship management (CRM) initiatives varied in the private and public sectors, and to determine an appropriate means of capturing and measuring this type of data. This research was guided by a previous thesis effort, which had established a segmentation methodology of AFMC's existing external customers. The research question was answered through a comprehensive literature review, and the use of survey methodology. Over fifteen hundred external customers were given the opportunity to participate in the web-based survey. The research identified the need to further examine continual customer participation in the development of the ongoing CRM initiative.</p> <p>The culmination of this effort was the development of a customer satisfaction survey to assist Air Force Material Command in determining what was important to their external customers. Recommendations on how to interpret the results and implement appropriate responses are discussed.</p>					
<b>15. SUBJECT TERMS</b> Public sector customer relationship management, survey methodology, change management					
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>	<b>18. NUMBER OF PAGES</b>	<b>19a. NAME OF RESPONSIBLE PERSON</b>
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Standard Form 298 (Rev. 8-98)  
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