

DOCUMENT RESUME

ED 296 424

CS 506 277

AUTHOR Bennett, David W.; Jandt, Fred E.  
 TITLE The Effect of Communication Apprehension on Service Worker Job Success and What Management Can Do To Help.  
 PUB DATE Nov 88  
 NOTE 28p.; Paper presented at the Annual Meeting of the Speech Communication Association (74th, New Orleans, LA, November 3-6, 1988).  
 PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)  
 EDRS PRICE MF01/PC02 Plus Postage.  
 DESCRIPTORS \*Communication Apprehension; Communication Research; Communication Skills; \*Job Satisfaction; Job Skills; \*Self Concept; \*Service Workers; Work Attitudes; Work Environment  
 IDENTIFIERS \*Job Characteristics; \*Personal Report of Communication Apprehension; Superior Subordinate Relationship

ABSTRACT

To investigate the effect of communication apprehension on service worker job success, a study surveyed 536 service workers in five states during the summer of 1987. The survey sample consisted of individuals from a broad range of age groups with 35% aged 19-21, 24% aged 22-25, 19% between 26 and 35, and 20% over 35 years of age. The questionnaire was designed to survey a broad range of factors relevant to service jobs. The final version consisted of 94 questions, 25 of which were the original Personal Report of Communication Apprehension (PRCA) items. Analysis revealed that service workers chose their occupations in accordance with their level of communication apprehension, supporting the theory that high communication apprehensive individuals choose occupations they perceive as requiring little communication. Those in service and particularly management jobs reported much lower levels of communication apprehension, whereas those that desired or thought they would be working in a manufacturing job reported higher levels of communication apprehension. Management should provide a positive work climate where employees can solve problems on the spot and have a degree of freedom and independence, and also upgrade the service worker image in their training programs. (Thirteen tables of data are included, and 11 references are attached.) (MM)

\*\*\*\*\*  
 \* Reproductions supplied by EDRS are the best that can be made \*  
 \* from the original document. \*  
 \*\*\*\*\*

ED 296424

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

David W. Bennett

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it
- Minor changes have been made to improve reproduction quality

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

THE EFFECT OF COMMUNICATION APPREHENSION ON SERVICE WORKER  
JOB SUCCESS AND WHAT MANAGEMENT CAN DO TO HELP

David W. Bennett and Fred E. Jandt  
Department of Communication  
California State University  
San Bernardino, CA 92407

Presented at the Annual Convention of the  
Speech Communication Association  
New Orleans, LA  
May, 1988

CS506277

One of the major effects of communication apprehension described by Hurt, Scott, and McCroskey (1978) is occupational choice. Based on their review of research they argue that students chose their occupations in accordance with their level of communication apprehension. Thus, highly apprehensive students tend to choose occupations that require little human interaction, while students with low communication apprehension tend to choose occupations that permit a great deal of communication with other people. They conclude that this is a problem for highly apprehensive students because they believe the overwhelming majority of high-status, high-income occupations require a great deal of communication (pp. 149-150).

We believe their assertion does not adequately describe the problem. Actually, the majority of jobs in the U.S. today while not necessarily high-status and high-income do require a great deal of communication. Jobs in today's service economy require a high degree of communication. And as the service economy grows, fewer and fewer jobs that require little human interaction will be available to highly apprehensive students. Communication education will be asked to prepare students not only for leadership positions, but for jobs at McDonald's.

Newsweek columnist George F. Will described our new economy: "McDonald's has more employees than U.S. Steel. Golden arches, not blast furnaces, symbolize the American economy." The label "Service Economy" refers to the gradual replacement in our economy of the importance of manufacturing products with

providing services. In 1978 Americans spent \$600 billion for services, including everything from airline tickets, electricity, rent, medical care, college tuition, sports entertainment, and automobile repair. Service industries provide two-thirds of the gross national product.

Data from the U.S. Department of Commerce reveal that what the government labels as services went from \$83 billion in 1960 to \$203 billion in 1982 (in constant 1972 dollars), an increase of 144%. Add to this government itself--a service--which climbed from \$107 billion to \$177 billion, a 65% increase. A realistic total for all service would exceed \$1 trillion by 1992. Today, in excess of 45% of the average family's budget is spent on services.

Of the 12.6 million new jobs created since the end of the last recession in 1982, almost 85% have been in service industries as opposed to goods-producing fields. U.S. Department of Labor publications become repetitive with the same theme: "The majority of new jobs nationwide are being formed in services...replacing jobs lost in the manufacturing sector." And, "Service industries will account for nine of ten new jobs."

#### Communication Apprehension and Occupational Choice

Research reviewed by Daly (1976) revealed that in comparison to low communication apprehensive people, those with high communication apprehension view themselves are viewed by others more negatively on a number of dimensions than those individuals who are not communication apprehensive. Others see the

individual with high communication apprehension as less socially attractive, and lower on composure, competence, extroversion and sociability. The communication apprehensive individual has lower self-esteem and credibility, feels isolated and seclusive, and lacks trust in others. According to Daly, high communication apprehensive individuals thus select occupations they perceive as requiring little communication. Further, these individuals, because of their lack of communication skills are offered jobs less frequently at lower salaries.

Cooper (1984) echoes some of Daly's conclusions drawing a profile of the high communication-apprehensive student as one who is withdrawn, has a low task orientation and need to achieve, has low self-esteem, and chooses occupations requiring little communication. In contrast, the low communication-apprehensive student according to Cooper is generally perceived as an individual who has a high need to achieve, high self-esteem and self-assuredness, and who seeks occupations requiring a large amount of communication.

McCroskey (1982, 1984) supports the idea that communication apprehension impacts on career choice through positive and negative reinforcement. That is, when individuals are successful with certain communication behaviors in terms of reaching a desired goal, they develop positive expectations which are reinforced through continual use. Negative expectations can also be reinforced as well. If individuals do not have success in communicating in various situations, they are likely to withdraw rather than engage in behavior that is likely to lead to failure.

As Miller (1987) points out, an individual with few communication skills will soon associate communication with negative outcomes. Since most individuals will tend to choose occupations that offer some expectation of success, the individual with high communication-apprehension is not likely to choose a job where communication skills are required.

### Service Communication

Given the nature of service communication, it is reasonable to assume then that communication apprehension is an important factor in service. Services involve a communication interaction--an interchange, a negotiation--between the customer and a representative of the service organization. That communication interaction so distinctive of services is what creates its value for the customer. It is also the penultimate human activity. Engaging in an economic exchange for intangibles--for activities that have no physical existence--is distinctly human. To create the intangibles of service requires the active participation of the consumer and by a high degree of communication interaction by the service worker.

### Survey of Service Workers

During the summer of 1987, we conducted a nationwide survey of 536 service workers in five states. The survey sample consisted of individuals from a broad range of age groups with 35% aged 19-21, 24% aged 22-25, 19% between 26 and 35, and 20% over 35 years of age. Most of the respondents were from the

middle to upper middle class (74%) with some college (79%). Two-thirds of the sample were female (67%). Most of the subjects were white (77%) although Asian-American (4%), Black (6%), and Hispanic (9%) groups were represented.

The questionnaire was designed to survey a broad range of factors relevant to service jobs. The final version consisted of 94 questions--25 of which were the original PRCA items (McCroskey, 1978). The original PRCA scale has no specific stimulus information about the service encounter. However, we can report correlations of the original PRCA scale to the other items related to service work.

### Statistical Analysis

We used Analysis of Variance (ANOVA) to compare the 25 PRCA items with the other 69 questions. Each individual had one score for the 25-item PRCA scale. An a priori level of significance was set at .05.

### Results

#### Correlations with Demographic Items

We first compared PRCA scores with demographic items. Men reported less communication apprehension than women ( $F=.02$ ). When we examined age, we found a significant relationship between age and reports of communication apprehension ( $F=.03$ ). The most apprehension was reported in the 18 and under age group, the least in the above 35 age group. An overall examination, however, did not indicate any clear trends between different ages

and reports of communication apprehension.

We asked two questions aimed at determining the relationship between the amount of socialability and reports of communication apprehension. We found a significant relationship between the number of clubs and volunteer associations in which service workers participated and their level of communication apprehension ( $F=.01$ ). The more clubs with which service workers were involved the lower levels of communication apprehension reported. Service workers involved with four or more clubs in an average week reported very low levels of communication apprehension.

Our second question asked service workers how many times a week that they socialize with friends. Although not significant (.06), an examination of the means for those who socialized none, one, two, three, and four or more times a week indicated that apprehension scores for individuals went down the more social they were.

Finally, we asked service workers to indicate whether either or both of their parents were alcohol dependent. Service workers who indicated that their parents were alcohol dependent also indicated more communication apprehension ( $F=.02$ ).

#### Correlations with Opinion of Self

Daly reported that high communication-apprehensive people reported lower levels of self-esteem and self-credibility. We found support for this conclusion. Table 1 provides the results to the question "How high is your opinion of yourself in



general?" The ANOVA analysis indicated that there was a significant difference in the means ( $F=.00$ ) between those service workers who rated themselves very high and those who rated themselves average. As is indicated, we found a confidence factor; that is, the higher subjects opinion of themself the less communication apprehension they indicated.

---

Insert Table 1 About Here

---

We might assume that individuals who were more confident and self-assured would also believe that other people felt the same way. To tap this, we asked service workers a perceptual question, "How high is other people's opinion of you in general?" Results in Table 2 indicate a significant difference between the means ( $F=.00$ ). Service workers who thought that other people had a high opinion of them reported lower levels of communication apprehension.

---

Insert Table 2 About Here

---

These results indicating a higher level of self-esteem for those service workers who reported less communication apprehension were further supported by subject responses to the

question "How intelligent do you think you are?" The more intelligent the service workers believed they were, the less apprehensive they felt (Table 3).

---

Insert Table 3 About Here

---

Further, service worker responses to the question, "How frequently do you hide your true feelings" indicated that subjects who almost always hide their true feelings also reported higher levels of communication apprehension.

---

Insert Table 4 About Here

---

These results support previous research (Daly, 1976; Cooper, 1984) that self-image and apprehension are related. In this case, service workers who reported less communication apprehension, had higher self-confidence including a higher self-rating of intelligence. They also indicated that they believed others felt the same way.

#### Employment History

Daly reported that high communication apprehensive people select occupations they perceive as requiring little

communication. Respondents were asked to report the number of jobs they had had in management, manufacturing, and service and which they would prefer and expect to spend the remainder of their career. Consistent with Daly's review, we found that those who had more jobs in management were lower on communication apprehension and that those who had more jobs in manufacturing were higher on communication apprehension.

Table 5 provides the ANOVA analysis to the question "If jobs are defined as management, manufacturing, and service, how many jobs have you had in management?" There was a significant difference between the means ( $F=.00$ ), and clearly a significant relationship between jobs in management and levels of communication apprehension. Service workers with more management experience reported lower levels of communication apprehension while service workers with few management positions had higher levels of communication apprehension.

---

Insert Table 5 About Here

---

There was a significant relationship between reported levels of communication apprehension and desired salaries and career expectations. Table 6 provides the results for the question "If salaries in management, manufacturing and service were equal, in

which one would you rather spend most of your career?" Table 7 provides the ANOVA analysis for the question "In which one do you expect to spend most of the remainder of your career?"

Those in service and particularly management jobs reported much lower levels of communication apprehension. Those that desired or thought they would be working in a manufacturing job reported higher levels of communication apprehension. As indicated in the review, it may be that people with high levels of communication apprehension choose manufacturing for many reasons including lower levels of communication required and thus, a greater feeling of personal comfort and chance for personal success.

These results must be interpreted with caution however, since this was a forced choice question. An examination of the cell means for the question asking service workers to indicate in which job area they expected to spend most of the remainder of their career indicated that most wanted to be in management (70.66), or service (74.89), however, not in manufacturing (81.32).

---

Insert Tables 6 and 7 About Here

---

#### Correlations with Listening

Based on the highly interactive nature of service jobs, it is reasonable to expect that a fair degree of listening ability

is important. Intuitively, it would seem that individuals with high communication apprehension would be so concerned with their own uneasiness or uncomfortableness that they would be missing an important element of effective listening, attention and energy. We did find that there was an important relationship between listening effectively and lower levels of communication apprehension.

Table 8 provides the ANOVA analysis between scores on the PRCA and responses to the question "Do you listen to the feelings behind the facts when someone is speaking?" Table 9 provides the results for the question "When you're listening to someone, are you easily sidetracked by outside distractions--people and events?"

---

Insert Tables 8 and 9 About Here

---

In both cases, there was a significant difference between the means. More effective listeners who put forth the extra effort to listen for deeper meanings in what the other person had to say and who were not easily sidetracked reported lower levels of communication apprehension. Both of these questions reinforce the idea that listening particularly in service jobs is an important part of the communication process.

#### Characteristics of the Service Job

Given the fact that individuals have different levels of apprehension, are there things that an employer can do in terms of training, salary, or on-the-job support that would maximize chances for employee success? We asked a series of questions relating job characteristics to reported levels of communication apprehension.

The results of the ANOVA analysis to the question "How much customer service/customer relations training did you receive for your current or most recent service job?" indicated that there was not a significant difference in the means between those subjects with no training versus those subjects with training. It may be that service workers bring certain personality characteristics to the job which in the case of apprehension can be only minimally impacted by customer relations training. For the employer, this would mean greater care in initial hiring especially for jobs where a great degree of customer contact is required.

Other factors besides training may, however, help the service worker in being a more effective employee. We asked subjects "How much authority do (did) you have to solve customer complaints on the spot?" Table 10 provides the results of the ANOVA analysis. We recoded the data so that those subjects who reported none or almost no authority were compared with those subjects who had total or near total authority to solve customer complaints on the spot.

---

Insert Table 10 About Here

---

The service workers who had authority to solve complaints on the spot indicated less communication apprehension ( $F=.00$ ). In other words, little or no authority to solve complaints on the spot may create more apprehension. Since apprehension involves a degree of confidence, service workers who believe that they have some authority over their own job or some management authority to solve problems may feel better about their job and thus have more confidence or high communication apprehensive workers avoid jobs requiring them to deal with the uncomfortable situation of handling customer complaints. We even found that workers expressed much less communication apprehension when they received information and explanation from management about how the organization for which they worked was unique from others in the same field.

And what about incentives to the service worker? We discovered that in service jobs where raises and bonuses were tied to reports of customer service, as opposed to those jobs in which raises and bonuses were not, subjects reported less communication apprehension (Table 11). We recoded the data so that those subjects who worked in jobs in which raises were always or nearly always tied to reports of customer service could be compared to those who worked in jobs in which raises were not or nearly never tied to reports of customer service.

---

Insert Table 11 About Here

---

It appears that high levels of communication apprehension may be mitigated somewhat by the promise of job incentives. It therefore seems important from our results not only that management train employees adequately, but also provide them with enough information and support in terms of responsibility and financial rewards to maximize their quality of interaction with customers.

But what about employees? What do employees list as important qualifications in order to do their job well? Those who reported lower levels of apprehension reported that in order to do their job well, a great deal of common sense first, then formal education, intelligence, and an ability to speak well and quickly was needed.

More importantly, how do employees feel about their job? Several items related to job pride and job satisfaction. Generally, those who were more satisfied with their service jobs were lower in communication apprehension. Service workers who reported that they were satisfied with their current (or most recent) service job indicated lower levels of communication apprehension ( $F=.01$ ). Workers who indicated that their job was as satisfying as they originally expected it to be indicated less communication apprehension as well ( $F=.02$ ).

In exploring this concept further, we asked service workers



two questions dealing with job satisfaction. The first question asked service workers "How much does having freedom and independence at work determine how satisfied you are with your job?" Table 12 provides the results of the ANOVA analysis which indicated that service workers reported much lower levels of communication apprehension if they had freedom and independence on their job. For purposes of data analysis, those service workers indicating that freedom and independence was an extremely important factor or nearly so were compared with those service workers who felt it was not an extremely important factor or nearly so.

---

Insert Table 12 About Here

---

The second question asked service workers "How much does knowing you are doing a service for others determine how satisfied you are with your job?" Table 13 provides the results of the ANOVA analysis. For purposes of data analysis, those subjects who agreed that doing a service for others was an extremely important factor or nearly so in terms of job satisfaction were compared with those who believed it was not at all or nearly not at all involved. Subjects who indicated that doing a service for others was an important factor in determining how satisfied they were with their job also reported less communication apprehension. There was, in other words, a

significant relationship between job satisfaction because of service to others and less communication apprehension.

---

Insert Table 13 About Here

---

Obviously, there is a relationship between satisfaction and pride in a work atmosphere. Workers who had pride in their work and who also thought that other people thought their work was important reported lower levels of communication apprehension.

### Discussion

As predicted in the review, we found that service workers choose their occupations in accordance with their level of communication apprehension. Those in service and particularly management jobs reported much lower levels of communication apprehension. Those that desired or thought they would be working in a manufacturing job reported higher levels of communication apprehension. This supports Daly's contention that high communication apprehensive individuals, for example, choose occupations they perceive as requiring little communication. Individuals are going to engage in those occupations where they have experienced success and where that success has been reinforced over a period of time. As McCroskey (1982, 1984) points out if individuals do not have success in communicating in various situations, they are likely to withdraw rather than

engage in behavior that is likely to lead to failure.

Our profile of the service worker with low levels of communication apprehension is a person who is older and who socializes alot with friends and others including belonging to clubs and volunteer associations. This individual is also a good listener--putting forth effort and avoiding distractions. This individual has higher self-confidence including a higher self-rating of intelligence. They also believe others feel the same way. These results in terms of self-esteem and self-credibility support previous research by Daly (1976) and Cooper (1984).

Management can certainly use the PRCA as a tool in hiring service workers. An assessment of the communication apprehension of an individual in a job requiring a great deal of communication seems essential. Only then can training programs be developed that will best meet the needs of those employees. However, with more and more people entering the service field, management has the special responsibility to also provide special programs in communication training to all employees even those that have higher levels of communication apprehension.

Our results indicate that there are a number of things that management can do to lower levels of apprehension by service workers. If management is willing to provide a positive work climate whereby employees are given authority to solve problems on the spot, and provided with a degree of freedom and independence, the employee should be more satisfied with the job, experience less communication apprehension and do a better job.

This may be difficult for management since the typical service worker has a very negative perception of their jobs. They feel overworked, underpaid, undertrained, unmotivated and in general have little pride in their jobs or satisfaction from their jobs. As a result, many service jobs have a high turnover rate (Time, February, 1987).

Management would be advised in their training programs to go beyond just instruction in how to do a specific job. The training should also deal with upgrading the image of service work. We discovered, for example, that when there was a feeling that the service worker was doing an important service for others, there was less communication apprehension reported. Further, besides giving service workers more authority, freedom and independence on the job management should also provide raises and bonuses as a further incentive for positive customer interaction.

## Bibliography

- Cooper, P.J. (1984). Speech Communication for the Classroom Teacher, Second Edition. Scottsdale, Arizona: Gorsuch Scarisbrick, Publishers.
- Daly, J. (1976). Communication Apprehension in the Classroom: A Review. Paper presented at the Annual Convention of the Speech Association Convention, Houston.
- George, W.R., and Kelly, J.P. (1983). The Promotion and Selling Services. Business, 33, 3.
- Hurt, H. T., Scott, M.D., and McCroskey, J.C. (1978). Communication in the Classroom. Reading, Massachusetts: Addison-Wesley Publishing Co.
- Killsya, J.C., and Armistead, C.G. (1983). The Transfer of Concepts and Techniques Between Manufacturing and Service Systems. International Journal of Operations and Production Management, 3.
- McCroskey, J. (1982). Oral communication apprehension: A reconceptualization. In 'I. Burgoon (Ed.), Communication Yearbook 6 (pp. 136-170, . New Brunswick, N.J.: Transaction Books.
- McCroskey, J. (1984). The communication apprehension perspective. In J. Daly and J. McCroskey (Eds.), Avoiding Communication (pp. 13-38). Beverly Hills: Sage.
- McCroskey, J.C. (1978). Validity of the PRCA as an index of oral communication apprehension. Communication Monographs, 45.
- Miller, M.D. (1987). The relationship of communication reticence and negative expectations. Communication Education, 36.
- Neer, M.R. The development of an instrument to measure classroom apprehension. Communication Education, 36.
- Time, February 2, 1987. Pul-eeze! Will Somebody Please Help Me? pp. 48-57.

Tables

Table 1-ANOVA

How high is your opinion of yourself in general?					
Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F	
Main Effects					
Self Opinion	15703.9	4	3925.9	.001	
Grand Mean=72.67		N=536			
Cell Means-Self Opinion					
	Very High				Average
Mean	65.48	70.22	77.00	81.68	82.82
Subjects	93	243	122	31	45

Table 2-ANOVA

How high is other people's opinion of you in general?					
Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F	
Main Effects					
Other's Opinion	9396.975	4	2399.24	.001	
Grand Mean=72.69		N=534			
Cell Means-Other's Opinion					
	Very High				Average
Mean	70.35	70.04	74.39	82.47	83.84
Subjects	54	285	132	32	31

Table 3-ANOVA

---

How intelligent do you think you are?

---

Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F
<b>Main Effects</b>				
Intelligence	5009.663	4	1252.416	.001

---

Grand Mean=72.66      N=531

---

Cell Means-Intelligence

---

	Extremely				Average
Mean	66.99	72.12	75.33	76.29	78.89
Subjects	76	291	109	17	38

---

Table 4-ANOVA

---

Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F
<b>Main Effects</b>				
Hiding Feelings	6738.242	4	1684.56	.001

---

Grand Mean=72.66      N=535

---

Cell Means-Hiding Feelings

---

	Almost Always			Almost Never	
Mean	78.26	77.24	72.85	70.22	66.14
Subject	39	104	190	144	58

---

Table 5-ANOVA

If jobs are defined as management, manufacturing, and service, how many jobs have you had in management?

Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F	
<b>Main Effects</b>					
Jobs	6806.166	4	1701.542	.001	
Grand Mean=72.65		N=535			
<b>Cell Means-Jobs</b>					
	None	One	2-3	4-5	More Than 5
Mean	76.58	71.91	68.56	65.00	65.25
Subjects	211	166	130	16	12

Table 6-ANOVA

If salaries in management, manufacturing and service were equal, in which one would you rather spend most of your career?

Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F
<b>Main Effects</b>				
Salaries	1807.110	2	903.555	.015
Grand Mean=72.78		N=529		
<b>Cell Means-Salaries</b>				
	Management	Manufacturing	Service	
Mean	72.45	79.37	71.95	
Subject	312	38	179	



Table 7-ANOVA

In which one do you expect to spend most of the remainder of your career?

Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F
<b>Main Effects</b>				
Career	3625.891	2	1812.946	.001
Grand Mean=72.72		N=521		
<b>Cell Means-Career</b>				
	Management		Manufacturing	Service
Mean	70.66		81.32	74.89
Subjects	296		19	206

Table 8-ANOVA

Do you listen to the feelings behind the facts when someone is speaking?

Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F
<b>Main Effects</b>				
Feelings	5120.125	4	1280.031	.001
Grand Mean=72.71		N=521		
<b>Cell Means-Feelings</b>				
	Always			Never
Mean	73.04	70.32	77.07	83.50
Subjects	151	266	90	14
				8

Table 9-ANOVA

When you're listening to someone, are you easily sidetracked by outside distractions--people and events?

Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F
Main Effects				
Distractions	3724.752	4	931.188	.002
Grand Mean=72.57	N=532			
Cell Means-Distractions				
	Always			Never
Mean	80.08	75.76	72.41	70.18
Subjects	24	111	190	191
				16

Table 10-ANOVA

How much authority do (did) you have to solve customer complaints on the spot?

Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F
Main Effects				
Complaints	2723.592	1	2723.592	.001
Grand Mean=72.5	N=398			
Cell Means-Complaints				
	All Authority Needed		No Authority	
Mean	75.88		70.47	
Subjects	149		249	

Table 11-ANOVA

How much are (were) raises and bonuses tied to reports of your customer service?

Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F
Main Effects				
Bonuses	3677.303	1	3677.303	.001
Grand Mean=72.51		N=447		
Cell Means-Bonuses				
	Not At All		Always	
Mean	73.89		66.55	
Subjects	363		84	

Table 12-ANOVA

How much does having freedom and independence at work determine how satisfied you are with your job?

Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F
Main Effects				
Freedom	2111.494	1	2111.494	.002
Grand Mean=72.32		N=482		
Cell Means-Freedom				
	Extremely Important		Not Important	
Mean	71.95		84	
Subjects	467		15	

Table 13-ANOVA

How much does knowing you are doing a service for others determine how satisfied you are with your job?

Source Variation	Sum Sqs.	DF	Mean Sq.	Signif. of F
Main Effects				
Service	1058.514	1	1058.514	.026
Grand Mean=72.52	N=420			
Cell Means-Service				
	Important		Not Important	
Mean	71.85		76.27	
Subjects	356		64	