# THE IMPACT OF SERVICE DELIVERY OF WATER DEMAND MANAGEMENT FOR LOW INCOME COMMUNITIES 

by

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## DECLARATION

I, Nokhanyo Madliwa, hereby declare that this dissertation submitted for the degree Magister Technologiae at the Cape Peninsula University of Technology is my own original unaided work, and has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

Nokhanyo Madliwa

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## DEDICATION

This study is dedicated to my beloved parents, Sidumo Dennison Madliwa and Hazel Nomambethu Madliwa. Thank you for your love, care and for all you have done for me in my lifetime, and especially your outstanding support of my future endeavours; my late brother Phelela Madliwa who passed away in November 1994; my brother Xolisa Madliwa and little sister Unathi Madliwa, thank you for your encouragement and support.

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The roots of true achievement lie in the will to become the best you can become
Harold Taylor

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#### Abstract

Poor service delivery is becoming one of the core factors that can ruin the reputation of organisations in South Africa, and all over the world. In order to have satisfied users, an organisation should implement business improvement initiatives to enhance, and continually improve, service delivery. Service delivery is becoming one of the key critical performance measures in the Government and other service providing sectors. Performance by various departments of Government, regarding service delivery, draws a considerable amount of attention from citizens throughout the country. Organisations need to understand that there are benefits in delivering an excellent service to the users, as it increases user satisfaction.

An understanding of the importance of service delivery in organisations can help managers in the formulation and development of service charters, and in making strategic service improvement decisions. Water Demand Management, a branch of Water and Sanitation at the City of Cape Town, has a long term goal, whereby the department is striving to become a leader in the provision of equitable, sustainable, people-centred, affordable and reliable water and sanitation services to all the residents in the low income areas of the Cape Town Metropole.

The department is currently faced with a challenge of poor service delivery to the low income areas that result in dissatisfaction and discontent among the residents. This research will focus on the impact of service delivery on user satisfaction. The current standard of service delivery of Water Demand Management will be reviewed and improved upon.


TABLE OF CONTENTS Page
DECLARATION ..... i
DEDICATION ..... ii
ACKNOWLEDGEMENTS ..... iii
ABSTRACT ..... iv
TABLE OF CONTENTS ..... v
LIST OF TABLES ..... xi
LIST OF FIGURES ..... xii
GLOSSARY OF TERMS ..... xiii
ACRONYMS ..... xiv
CHAPTER 1
THE SCOPE OF THE RESEARCH ..... 1
1.1 INTRODUCTION AND MOTIVATION ..... 1
1.2 BACKGROUND TO THE RESEARCH PROBLEM ..... 2
1.2.1 Statement of the research problem ..... 4
1.3 RESEARCH QUESTION ..... 5
1.3.1 Investigative (sub) questions ..... 5
1.4 PRIMARY RESEARCH OBJECTIVES ..... 5
1.5 THE RESEARCH PROCESS ..... 6
1.6 RESEARCH DESIGN AND METHODOLOGY ..... 7
1.7 DATA COLLECTION AND METHODOLOGY ..... 8
1.8 DATA VALIDITY AND RELIABILITY ..... 9
1.9 ETHICS ..... 10
1.10 RESEARCH ASSUMPTIONS ..... 11
1.11 RESEARCH CONSTRAINTS ..... 11
1.12 SIGNIFICANCE OF THE PROPOSED RESEARCH ..... 12
1.13 CHAPTER AND CONTENT ANALYSIS ..... 12

## CHAPTER 2

## WATER DEMAND MANAGEMENT

## 14

2.1 INTRODUCTION 14
2.2 MUNICIPAL SERVICE DELIVERY 14
2.2.1 Water and Sanitation services 14
2.2.2 Roles and responsibilities 15
2.3 PROVISION OF SERVICES 15
2.3.1 Local government (Municipality) 16
2.3.2 Capacity Building 16
2.3.3 Corporatisation 17
2.3.4 Municipal service partnerships 18
2.3.5 $\begin{aligned} & \text { Implementation of a Municipal Service Partnership (MSP) in a } \\ & \text { municipality }\end{aligned}$
2.3.6 Operation of a municipality service partnership 19
2.3.7 Role of citizens in Municipal Service Partnerships 20
2.4 SERVICE LEVELS 20
2.5 PROVISION OF FREE BASIC MUNICIPAL SERVICES 21
2.6 OPTIONS FOR FREE BASIC SERVICE 21
$\begin{array}{ll}\text { 2.7 THE QUALITY FRAMEWORK TO ENHANCE SERVICE } \\ & \text { DELIVERY }\end{array}$
2.8 CHALLENGES 22
2.9 STANDARDS 23
2.10 INTERNAL AUDIT 23
2.11 BENCHMARKING 24
2.12 PROCESS MANAGEMENT 24
2.13 ENVIRONMENT MANAGEMENT AND SAFETY 2425
CHAPTER 3
SERVICE DELIVERY: A LITERATURE REVIEW ..... 26
3.1 INTRODUCTION ..... 26
3.2 DEFINITION OF SERVICE ..... 26
3.3 DEFINITION OF VOICE OF THE CUSTOMER (VOC) ..... 27
3.3.1 A systematic approach ..... 28
3.3.2 Customer needs ..... 28
3.3.3 Experience design ..... 28
3.4 CAPTURING THE VOICE OF THE CUSTOMER ..... 29
3.5 LISTENING TO THE VOICE OF THE CUSTOMER ..... 31
3.5.1 Relationship ..... 31
3.5.2 Products and processes ..... 31
3.5.3 Customer experience ..... 32
3.5.4 Ubiquitous VOC ..... 33
3.6 LEVELS OF ACTIVITIES IN A VOC PROGRAMME ..... 33
3.7 INVOLVEMENT WITH CUSTOMERS ..... 34
3.8 COLLECTING CUSTOMER INFORMATION ..... 35
3.9 IDENTIFYING CUSTOMER NEEDS ..... 36
3.10 ORGANISING CUSTOMER NEEDS ..... 36
3.11 CUSTOMER ENGAGEMENT AND CUSTOMER SATISFACTION ..... 37
3.12 TAKING ACTION ON CUSTOMER FEEDBACK ..... 38
3.12.1 Questions designed for action ..... 38
3.12.2 Action Alerts ..... 38
3.12.3 Action Alert Management ..... 38
3.12.4 Manager Action Planning Tool ..... 39
3.13 CUSTOMER-DRIVEN PROCESS ENTERPRISE ..... 39
3.14 CUSTOMER EXPECTATIONS ..... 40
3.15 SERVQUAL ..... 41
3.16 FOCUS GROUPS ..... 42
3.17 CUSTOMER INTERVIEWS ..... 43
3.18 THE KEYSTONE CUSTOMER ..... 44
3.19 COHERENT SERVICE PLANNING ..... 45
3.20 QUALITY FUNCTION DEPLOYMENT ..... 46
3.21 HISTORY OF QUALITY FUNCTION DEPLOYMENT ..... 46
3.22 QUALITY FUNCTION DEPLOYMENT PROCESS ..... 47
3.23 BENEFITS OF QUALITY FUNCTION DEPLOYMENT ..... 48
3.23.1 Main 'process' benefits of using QFD ..... 49
3.23.2 Main 'bottom line' benefits of using QFD ..... 49
3.24 THE DEPLOYMENT OF SERVICE QFD ..... 49
3.25 KANO MODELAPPROACH ..... 51
3.25.1 Revealed requirements ..... 51
3.25.2 Expected requirements ..... 51
3.25.3 Exciting requirements ..... 51
3.26 CONCLUSION ..... 53
CHAPTER 4
KNOWLEDGE MANAGEMENT SURVEY DESIGN AND METHODOLOGY ..... 54
4.1 THE SURVEY ENVIRONMENT ..... 54
4.2 AIM OF THIS CHAPTER ..... 54
4.3 THE TARGET POPULATION ..... 54
4.4 DATA COLLECTION ..... 55
4.5 MEASUREMENT SCALES ..... 56
4.6 THE DEMAND OF QUALITATIVE RESEARCH STRATEGY ..... 57
4.7 SURVEY SENSITIVITY ..... 58
4.8 SURVEY DESIGN ..... 58
4.9 THE VALIDATION SURVEY QUESTIONS ..... 60
4.9.1 Questionnaire on service delivery for low income communities ..... 60
4.10 CONCLUSION ..... 62
CHAPTER 5
DATA ANALYSIS AND INTERPRETATION OF RESULTS ..... 63
5.1 INTRODUCTION ..... 63
5.2 METHOD OF ANALYSIS ..... 64
5.2.1 VALIDATION OF SURVEY RESULTS ..... 64
5.2.2 DATA FORMAT ..... 64
5.2.3 PRELIMINARY ANALYSIS ..... 65
5.2.4 INFERENTIAL STATISTICS USED ..... 65
5.2.5 ASSISTANCE TO RESEARCHER ..... 66
5.2.6 SAMPLE ..... 66
5.3 ANALYSIS ..... 67
5.3.1 RELIABILITY TESTING ..... 67
5.3.2 DESCRIPTIVE STATISTICS ..... 71
5.3.3 UNI-VARIATE GRAPHS ..... 78
5.3.4 INFERENTIAL STATISTICS ..... 84
5.3.4.1 Comparisons with regard to differences in proportion who agreed and who disagreed ..... 85
5.3.4.2 Comparisons with regard to whether the two independent groups differed in their perceptions ..... 87
5.4 DISCUSSIONS AND CONCLUSIONS ..... 97
CHAPTER 6
CONCLUSION AND RECOMMENDATIONS ..... 99
6.1 INTRODUCTION ..... 99
6.2 THE RESEARCH THUS FAR ..... 99
6.3 THE RESEARCH PROBLEM RE-VISITED ..... 100
6.4 THE RESEARCH QUESTION RE-VISITED ..... 100
6.5 THE INVESTIGATIVE QUESTIONS RE-VISITED ..... 101
6.6 THE KEY RESEARCH OBJECTIVES RE-VISITED ..... 103
6.7 RECOMMENDATIONS ..... 104
6.8 CONCLUSION ..... 106
REFERENCES ..... 107
APPENDIXES
Appendix A: Cronbach alpha Coefficients ..... 114
Appendix B: Descriptive statistics: Frequency tables ..... 116
Appendix C: Descriptive statistics: Uni-variate ..... 124
Appendix D: Comparison of proportions ..... 138
Appendix E: Chi-square test for comparisons ..... 144
Appendix F: Factor analysis ..... 189

## LIST OF TABLES

Table 2.1: $\quad$ Service Levels ..... 21
Table 3.1: Methods for capturing the voice of the customer ..... 31
Table 3.2: Organisation Deployment Chart ..... 50
Table 5.1: Cronbach Alpha Coefficient ..... 68
Table 5.2: Original variables and corresponding factor loadings ..... 70
Table 5.3: Descriptive statistics for all the variables ..... 72
Table 5.4: Descriptive statistics ..... 77
Table 5.5: Statistically significant Chi-square test ..... 85
Table 5.6: Contingency table for Gender vs A4 ..... 88
Table 5.7: Chi-square test for Gender vs A4 ..... 88
Table 5.8: Contingency table for Gender vs B7 ..... 89
Table 5.9: Chi-Square test for Gender vs B7 ..... 89
Table 5.10: Contingency table for Gender vs B8 ..... 90
Table 5.11: Chi-Square test for Gender vs B8 ..... 90
Table 5.12: Contingecy table for Number of people residing vs B12 ..... 91
Table 5.13: Chi-square test for Number of people residing vs B12 ..... 91
Table 5.14: Contingency table for Number of people residing vs C18 ..... 92
Table 5.15: Chi-Square test for Number of people residing vs C18 ..... 92
Table 5.16: Contingency table for Number of people at home vs B8 ..... 93
Table 5.17: Chi-square test for Number of people at home vs B8 ..... 93
Table 5.18: Contingency table for Number of people at home vs C14 ..... 94
Table 5.19: Chi-square test for Number of people at home vs C14 ..... 94
Table 5.20: Contingency table for Number of people at home vs D19 ..... 95
Table 5.21: Chi-square test for Number of people at home vs D19 ..... 95
Table 5.22: Contingency table for Number of years at home vs D24 ..... 96
Table 5.23: Chi-square test for Number of years at home vs D24 ..... 96

## LIST OF FIGURES

Figure 3.1: Customer relationship ..... 29
Figure 3.2: The key customer ..... 45
Figure 3.3: Incoherent Planning and Development ..... 45
Figure 3.4: History of QFD ..... 46
Figure 3.5: QFD Methodology flow ..... 47
Figure 3.6: The KANO Model ..... 52
Figure 5.1: Distribution of respondents ..... 79
Figure 5.2: Gender distribution ..... 79
Figure 5.3: Responses on Section A ..... 80
Figure 5.4: Responses on Section B ..... 81
Figure 5.5: Responses on Section C ..... 82
Figure 5.6: Responses on Section D ..... 83
Figure 5.7: The water meters are always faulty ..... 89
Figure 5.8: $\quad$ Site awareness facilitators give wrong information ..... 90
Figure 5.9: No education on water wastage is provided ..... 91
Figure 5.10: The daily water allocation of 350 litres is not sufficient ..... 92
Figure 5.11: Follow-ups on complaints are not being done. ..... 93
Figure 5.12: No education on water wastage is provided ..... 94
Figure 5.13: Plumbers go to the wrong households ..... 95
Figure 5.14: WDM does not comply with consumer service charter ..... 96
Figure 5.15: Work instructions are not being followed ..... 97

## GLOSSARY OF TERMS

| Services | Refers to intangible products that are not goods <br> (tangible products). |
| :--- | :--- |
| SERVQUAL | Is a quality tool which measures service quality as <br> perceived by customers. |
| Voice of the customer | Systematic approach for incorporating the needs of <br> customers into the design of customer experiences. |
| Expectation | Is defined as a perceived-value customers seek from <br> the purchase of good or service. |
| Low income | Refers to individuals or households supported by an <br> income that is below average. |
| Customer Satisfaction | Customers' perceptions of the degree to which their <br> requirements have been fulfilled. |

## ACRONYMS

| LUMS: | Land Use Management System |
| :--- | :--- |
| IDP: | Integrated Development Planning |
| LED: | Local Economic Development |
| MIG: | Municipal Infrastructure Grant |
| WDM: | Water Demand Management |
| WC: | Water Conservation |
| VOC: | Voice of the Customer |
| QFD: | Quality Function Deployment |
| SABS: | South African Bureau of Standard |
| MSP: | Municipal Service Partnership |

## CHAPTER 1: SCOPE OF THE RESEARCH

### 1.1 INTRODUCTION AND MOTIVATION

Water Demand Management, a branch of Water and Sanitation, specialises in water conservation and focuses on saving water by fixing all leaks at no cost in the households of people residing in low income areas of the Cape Metropole. Water Demand Management ensures that users residing in low income areas of the Cape Metropole have access to basic water supply. Water, sanitation and hygiene are also included in the list of aspects on which Water Demand Management focuses.

Water Demand Management ensures that there is availability and reliability of water resources at all times for the people. The department also ensures that the water that is supplied to the residents is safe to drink. Measurement of service delivery, however, is rarely conducted by Water Demand Management, calling for the need to measure the actual or perceived gap between customer expectations, and perceptions of service delivery of the department by users. The researcher intends to provide insight into how the department could improve its overall customer satisfaction by addressing obstacles to quality of service delivery.

The research of Munyai (1997:37), revealed that most of the unemployed people in South Africa are residing in low income areas. These people are sometimes regarded as the poorest of the poor, due to their low lifestyle and the state of conditions under which they live in their communities. The quality of service delivery of government departments rendering a service is determined by residents living in these low income communities. Service delivery rendered to them is normally very poor and unsatisfactory.

According to Zeithaml and Bitner (2003:135), a sound measure of service quality is necessary for identifying aspects of service needing performance improvement, and also for assessing how much improvement is needed on each aspect of the services provided. Hayes (1991:6), states that services are intangible in nature,
and therefore customers' judgment about quality of service is usually based on dimensions of the service. This service should be continually improved, in order to remain competitive.

Pearson (2000:87), argues that service delivery strategies need to be supported by reliable data on the present and future demand for services. This will require an agency to:
$>$ Determine the demand for services from the community, substantiated by research and analysis.
$>$ Specify the nature of the service demands.
$>$ Detail its statutory service obligations (e.g. provision of education services).
$>$ Describe requirements for community service obligations.
> Analyse other relevant services within government.
$>$ Quantify levels of service that can be achieved.
This research will be executed through the distribution of questionnaires. The data will be analysed and recommendations made for service delivery improvement initiatives.

### 1.2 BACKGROUND TO THE RESEARCH PROBLEM

Poor service delivery of services rendered to users often leads to the dissatisfaction of users. The residents in the low income communities are often dissatisfied with the poor services rendered to them by the various departments of Government (Bonaveja \& Philander, 1975:45). Rogers, Peenz and Moller (1978: 16), found that in the Government sector, good service delivery is extremely important. Good service delivery builds good relationships between the local municipalities and citizens.

Mati and Luyt (2000:17), found that a review carried out in the 1990s revealed that there were challenges in providing good service delivery by local municipalities to the users in the communities. The following were among the challenges identified:
$>$ The ability to keep up with the infrastructure needs.
> The need to spontaneously provide infrastructure to meet the unpredictable growing demand.
> The continuous maintenance and upgrading of the existing infrastructure.
$>$ Affordability of the service, and willingness to pay.
$>$ The need to constantly improve effectiveness and efficiency.
$>$ Poor conditions of the residents.

Since the advent of the new democracy in the Republic of South Africa in 1994, municipalities across the country have embarked on several service-oriented programmes, primarily to improve the quality of life of ordinary citizens within their areas of jurisdiction. Some of these programmes were commissioned by National and Provincial sectors of Government and are designed to assist District and Local municipalities to achieve their constitutional mandates.

In terms of Section 152 of the Constitution of Republic of South Africa (Act 108 of 1996), these mandates include the provision of democratic and accountable Government for local communities; provision of basic services to local communities in a sustainable manner; promotion of socio-economic development in rural, urban and peri-urban communities; and the creation of a safe and healthy environment.

Some of the programmes that were commissioned by the National Government include Land Use Management System (LUMS), Integrated Development Planning (IDP), Integrated Sustainable Rural Development, Local Economic Development (LED), Urban Renewal Strategy and Municipal Infrastructure Grant (MIG). The key objective of these programmes is to fast track service delivery in municipalities by building capacity enterprises, and promoting small, medium and micro enterprises, in local communities, as a means of alleviating poverty (Local Government Programmes, 2004: Paragraph 4).

Subsequently, the responsibility for improving the quality of life of ordinary citizens in the Republic is largely delegated to District and Local municipalities across the country, in terms of the Constitution of the Republic (Constitution of Republic of South Africa, Act No. 108 of 1996).

Local municipalities should function as a truly accountable, effective and efficient sector of Government. These local municipalities play a major role in the war against poverty, and the promotion of socio-economic development in the local communities. In order to perform their constitutional duties effectively and efficiently, as stipulated in Section 154 (1) and 156 of the Republic of South Africa Constitution (Act No. 108 of 1996), it is deemed essential that municipalities acquire the requisite capabilities and manpower to deliver a good service to the residents in the communities.

According to Fitzsimmons and Fitzsimmons (2001:44), quality of service is deemed unacceptable when customer expectations are not met. This means, customer satisfaction is based on the comparison between perceptions of service rendered and expectations of services desired. When expectations are exceeded, service is perceived to be of exceptional quality, and vice versa. In this sense, customers are the ultimate judges of the value of services rendered to them by service providers.

In this research study, the gap between user expectation, and their perception of the quality of services rendered to them by Water Demand Management will be determined.

## $>\quad$ 1.2.1 $\quad$ Statement of the research problem

Against the above background, the research problem to be researched within the ambit of this dissertation reads as follows:
"Poor service delivery from Water Demand Management to low income areas results in dissatisfaction and discontent".

### 1.3 RESEARCH QUESTION

Following on the research problem, the following research question will form the primary focus of the research: "Which mechanisms can be employed by Water Demand Management to improve service delivery to low income areas?"

## $>\quad$ 1.3.1 Investigative (sub-) questions

The investigative questions to be researched in support of the research question read as follows:
$>$ Is there a need for improvement in the current status of service delivery of Water Demand Management?
> What are the current perceptions of the residents in low income areas, regarding the service delivery of Water Demand Management?
$>$ Is the daily water allocation adequate for the households in the low income areas?
$>$ Is there a need for response times of Water Demand Management to complaints, to be improved?
> To what extent are the users dissatisfied with the service delivery from Water Demand Management?

### 1.4 PRIMARY RESEARCH OBJECTIVES

The primary research objectives of this study read as follows:
$>$ To identify the impact of service delivery on user satisfaction.
$>$ To continually improve the service delivery of Water Demand Management.
$>$ To measure the level of customer satisfaction with regard to service delivery.
$>$ To review the current standard of service delivery and performance of Water Demand Management, and establish mechanisms for improving service delivery.

### 1.5 THE RESEARCH PROCESS

The research process provides insight into the process of 'how' the research will be conducted, from formulating the research proposal to final submission of the dissertation. Fundamental stages in the research process, common to all scientific based investigations, are listed below:

Citing the work of Remenyi, Williams, Money and Swartz (2002:64-65), Watkins (2008) explains the research process as consisting of eight specific phases, namely:
> Reviewing the literature.
> Formalising a research question.
$>$ Establishing the methodology.
$>$ Collecting evidence.
> Analysing the evidence.
> Developing conclusions.
$>$ Understanding the limitations of the research.
$>$ Producing management guidelines or recommendations.

Watkins (2008), citing Collis and Hussey (2003:16), mentioned that there are six fundamentals stages in the research process, namely:
$>$ Identification of the research topic.
> Definition of the research problem.
$>$ Determining how the research is going to be conducted.
$>$ Collection of the research data.
$>$ Analysis and interpretation of the research data.
$>$ Writing of the dissertation.

After careful consideration of the above research processes, the researcher will adopt the approach as proposed by Watkins (2008), citing Collis and Hussey (2003:16).

### 1.6 RESEARCH DESIGN AND METHODOLOGY

Falling within the phenomenological (qualitative) paradigm, action research will be used in this research study, which is a type of applied research, designed to find an effective way of bringing about conscious change in a partly controlled environment; for example, a study aimed at improving communications between management and staff in a particular company. The main aim of action research is to enter into a situation, attempt to bring about change, and to monitor the results. There are clear tangent planes between action research and case study research.

Action research is described by Watkins (2008), citing Gummeson (2000:116) as, "...a method of doing case study research". According to Watkins (2008), citing Collis and Hussey (2003:66-67), "...action research is a type of applied research designed to find an effective way of bringing about a conscious change in a partly controlled environment". Watkins (2008), citing Coghlan \& Brannick (2002:6-7), lists the following as the most salient features of 'action research':
$>$ Action researchers take action.
> Action science always involves two goals: 'Solve a problem for the client' and 'contribute to science'. This means being 'a management consultant' and an 'academic researcher' at the same time.
$>$ Action research is interactive. It requires cooperation between the researcher and the client personnel, and continuous adjustments to new information and new events.
> Action science is applicable to the understanding, planning and implementation of change in business firms and other organisations.
> It is essential to understand the ethical framework, and the value norms within which action research is used in a particular context.
$>$ Action research can include all types of data gathering methods, but requires the total involvement of the researcher.
> Constructively applied pre-understanding of the corporate environment and of the conditions of business, is essential.
> 'Management action research' should be conducted in real time, though retrospective research is also acceptable.
> The 'management action research' paradigm requires its own quality criteria.

Watkins (2008), citing Coghlan and Brannick (2002:17-18), describes the action research cycle as follows:
> Diagnosing: Diagnosing involves naming what the issues are, however provisionally, as a working theme on the basis of which action will be planned and taken.
> Planning action: Planning action follows from the analysis of the context and purpose of the project, the framing of the issue, and the diagnosis, and is consistent with them.
$>$ Taking action: Plans are implemented and interventions are made.
$>$ Evaluating action: The outcomes of the action, both intended and unintended, are examined with a view to seeing:
$>$ If the original diagnosis was correct.
$>$ If the action taken was correct.
> If the action was taken in an appropriate manner.
> All of the above, which feeds into the next cycle of diagnosis, planning and action.

### 1.7 DATA COLLECTION DESIGN AND METHODOLOGY

Questionnaires fall within the ambit of a broader definition of 'survey research' or 'descriptive survey'. The concept of 'survey' is defined by Watkins (2008), citing Remenyi et al. (2002:290), as: "......the collection of a large quantity of evidence usually numeric, or evidence that will be converted to numbers, normally by means of a questionnaire". A questionnaire is a list of carefully structured questions, chosen after considerable testing, with a view to eliciting reliable responses from a chosen sample. The aim is to establish what a selected group of participants do, think or feel. A positivistic approach suggests structured 'closed' questions, while a phenomenological approach suggests unstructured 'openended' questions.

For the purpose of this research, 'questionnaires' will be used to collect data. Closed-ended questions will be used in the questionnaire as this technique implies a research approach which allows respondents to quickly rate a list of well-
structured questions, with predetermined answers. Furthermore, data will be collected from a random sample of 80 residents who live and own houses in Ward 3 at Litha Park. This research will be conducted in Ward 3. This Ward falls under the zoning region of Litha Park. Litha Park is a small section of Khayelitsha, and has been in existence for more than 20 years.

### 1.8 DATA VALIDITY AND REALIBILITY

According to Watkins (2008), citing Collis and Hussey (2003:186), 'validity' is concerned with the extent to which the research findings accurately represent what is happening, or more specifically, whether the data is a true picture of what is being studied. According to Watkins (2008), citing Cooper and Schindler (2006:318-320), three major forms of validity can be identified, namely 'content validity', 'criterion-related validity' and 'construct validity', which is expanded upon below to provide a holistic perspective of each of the concepts:
> Content validity: The content of the measuring instrument is the extent to which it provides adequate coverage of the investigative sub-questions guiding the study. If the instrument contains a representative sample of the universe of subject matter of interest, then content validity is good.
> Criterion-related validity: This reflects the success of measures used for prediction or estimation. Any criterion measure must be judged in terms of the following four qualities:
$>$ Criterion is relevant: This is if the criterion is defined and scored in the terms we judge as the proper measures of success.
> Freedom from bias: The criterion must give each respondent the opportunity to score well.
$>$ Reliability: A reliable criterion is stable and reproducible.
> Availability: The information specified by the criterion must be available.
> Construct validity: In attempting to evaluate construct validity, both the theory and the measuring instrument being used should be considered.

According to Watkins (2008), citing Collis and Hussey (2003:59), construct validity relates to the problem when there are a number of phenomena which are not directly observable, such as motivation, satisfaction, ambition and anxiety. These are known as hypothetical constructs, which are assumed to exist as factors which explain observable phenomena. For example, you may observe someone shaking or sweating before an interview. You are not actually observing anxiety, but a manifestation of anxiety.

Reliability (also referred to as 'trustworthiness'), is concerned with the findings of the research (Collis \& Hussey, 2003:186, cited by Watkins, 2008). The findings are considered to be reliable if you, or anyone else, repeated the research and obtained the same results. There are three common ways of estimating the reliability of the responses to questions in questionnaires or interviews, namely:
$>$ Test re-test method;
$>$ Split-halves method (which will be applied in this research); and
> Internal consistency method

### 1.9 ETHICS

In the context of research, according to Watkins (2008), citing Saunders, Lewis and Thornhill (2000:130), "...ethics refers to the appropriateness of your behaviour in relation to the rights of those who become the subject of your work, or are affected by it."

The following ethical norms will be applied in conducting this research:
> Informed consent: Participants will be informed of the nature of the study and will be given a choice to participate or withdraw if they feel uncomfortable about the research.
> Right to privacy: The right to privacy of the participants will be respected and the performance of the participants will be strictly kept confidential.
> Honesty with Professional Colleagues: The findings will be reported in a complete and honest manner, without misrepresenting what the participants have done. The data will not be fabricated to support the research conclusion.

### 1.10 RESEARCH ASSUMPTIONS

In this research, it is assumed that in Water Demand Management the importance of service delivery is often overlooked. The impact of service delivery is rarely measured to determine the trends in the performance of the department. The lack of measuring, and improving service delivery at Water Demand Management will lead to a high rate of customer complaints and backlog, and will affect the overall performance of the department.

### 1.11 RESEARCH CONSTRAINTS

Research constraints (limitations and de-limitations); pertain to any inhibiting factor which would in any way constrain the research student's ability to conduct the research in a normal way. Watkins (2008), citing Collis and Hussey (2003:128-129), stated that 'limitations' identify weaknesses in the research, while 'de-limitations' explain how the scope of the study was focused on only one particular area or entity, as opposed to, say, a wider or holistic approach. The constraints to this research are as follows:
> Limitations: The research may be weakened by the fact that as Ward 3 increases in the number of residents, it becomes difficult and complex to measure people's perceptions and expectations of service delivery.
$>$ De- limitations: The researcher realises that, although Khayelitsha is extensive in its applications, this research will focus only on Ward 3 which falls under Litha Park.

It was realised that most of Water Demand Management research focuses on water conservation and educational awareness. It should be noted that the focus of this research is on 'service delivery'.

### 1.12 SIGNIFICANCE OF THE PROPOSED RESEARCH

The significance of the proposed research is vested in the fact that, although Water Demand Management is regarded by the Directors as one of the most productive departments in Water and Sanitation, the impact on service delivery from the department to the low income areas in the Cape Metropole needs to be looked at. This is due to the high rate of customer complaints coming to the department from the residents living in low income areas. This research aims to identify the key effective measures to improve the service delivery of Water Demand Management, to enhance customer satisfaction and to create a good relationship between the residents and the department.

### 1.13 CHAPTER AND CONTENT ANALYSIS

The chapter and content analysis, which will pertain to this research, reads as follows:

Chapter 1 - Scope of the research: In this chapter, a high level background will be provided of the scope of the research taking place within the government sector in the department of Water Demand Management. The research process will be explained, and the research design and methodology elaborated upon. The research constraints will be stated, and an overview of the chapter and content analysis of the dissertation will be provided. The chapter will be concluded with a list of primary research objectives.

Chapter 2 - Background and insight to the research environment: This chapter will provide a holistic overview of the research environment. Water Demand Management, is the organisation in which the research will be conducted, as well as looking into the provision of services.
Chapter 3 - Service Delivery (A literature review): In this chapter, a literature review will be conducted on the concept of service delivery.
Chapter 4 - Data collection design and methodology: In this chapter, the survey environment will be elaborated upon, and the approach to data collection explained. The chapter will be concluded with a list of survey questions to be posed to the target respondents.

Chapter 5 - Data analysis and interpretation of results: In this chapter, data gleaned from the survey conducted within the ambit of Chapter 4, will be analysed in detail and interpreted in terms of the primary theme of the dissertation.

Chapter 6 - Conclusion: In this chapter, the research will be concluded. The research problem, research question, investigative questions and research objectives will be revisited and final conclusions drawn.

## CHAPTER 2: WATER DEMAND MANAGEMENT

### 2.1 INTRODUCTION

Water Demand Management is a small branch of Water and Sanitation. The department is fairly new. Water Demand Management was established six years ago. There are forty qualified plumbers working for Water Demand Management. The department has a total of one hundred and sixty eight employees. This includes the administration staff, artisans and technicians. There is a head office for the department as well. The head office is situated in Goodwood.

Water Demand Management has embarked on its vision of becoming a leader in the provision of equitable, sustainable, people-centred, affordable and credible water services to the users. This was done by putting into operation a water demand management (WDM) and water conservation (WC) strategy. The purpose of the WDM/WC strategy is to ensure a long-term balance between available water resources and water demand. The other purpose is to minimise water wastage.

### 2.2 MUNICIPAL SERVICE DELIVERY

There are two important aspects that every municipality which supplies water to the residents should understand. These are:

### 2.2.1 Water and Sanitation services

All municipalities that supply water to the residents must be accountable for the provision of basic water and sanitation services. Water Demand Management has the responsibility of ensuring that residents in the low income areas of the Cape metropole are provided with water and sanitation services. The services are to ensure that the basic needs of the residents are satisfied. Water Demand Management provides these services at an affordable cost.

Water Demand Management looks at what role the residents in the low income communities can play, to help the department to provide an excellent service at all times.

### 2.2.2 Roles and responsibilities

Municipalities should ensure that their departments provide the people in the communities with the basic services. There are a large number of services. These include:
> Water supply
$>$ Sewage collection and disposal
> Refuse removal
$>$ Electricity and gas supply
> Municipal health services
$>$ Municipal roads and storm water drainage
$>$ Street lighting
> Municipal parks and recreation

These services could have a direct and immediate effect on the quality of the lives of the residents in the communities. For example, if the water provided is of poor quality, or refuse is not collected regularly, it could contribute to the creation of an unhealthy and unsafe living environment. Poor services could also make it difficult to attract business or industry to an area, and could limit job opportunities for the residents.

The scope of Water Demand Management involves the provision of water supply to the residents in low income areas. The department further ensures that the residents receive the basic water and sanitation services.

### 2.3 PROVISION OF SERVICES

Provision of services to the citizens involves a few factors that must be taken into consideration by municipalities. These factors assist in providing excellent service, and include the following:

### 2.3.1 Local government ( Municipality)

The Republic of South Africa Constitution (Act No. 108 of 1996), states that Local Government is the sphere of Government closest to the people. They are elected by citizens to represent them. The responsibility for Local Government is to ensure that services are delivered to the communities. One way in which municipalities can do this, is to provide the services themselves through the use of their own resources. This includes finance, equipment and employees. A municipality may also outsource the provision of a service.

Local Government may choose to hire someone else to deliver the service. However, it still remains the responsibility of the municipality to choose the service provider, and to make sure that they deliver the service properly. Many municipalities are, however, unable to deliver services to residents. This might be because of lack of finances, or lack of capacity to provide a good service at an affordable price. The municipalities should find other ways to ensure that the services are improved and reach the people most in need of them.

Water Demand Management has resources in place to ensure service delivery to the residents in low income communities. The department hires contractors annually, to assist in effectively providing water supply and basic sanitation services. However, the impact of service delivery of Water Demand Management for low income communities still needs to be measured. Measurement should be done continually, to improve the performance of the department and promote customer satisfaction.

### 2.3.2 Capacity Building

According to the Republic of South Africa Constitution (Act No. 108 of 1996), it is possible for a municipality to improve and expand the delivery of services by improving its own ability to do so. By improving a number of skills, municipalities may be better able to deliver services effectively and efficiently
from inside. Better communication between the municipality and citizens will help determine the needs of the community and whether they are being met. Improved financial planning will help find the best possible ways to use available funds. Better technical skills will improve delivery of a particular municipal service.

Water Demand Management has a budget to ensure that the department operates productively. The department has competent, skilled and qualified plumbers. The plumbers attend to customer complaints that are lodged by the residents. These plumbers are trained every two years, on special technical courses. The training is to ensure that they remain competitive. With the available resources, Water Demand Management has the potential to provide an excellent service to the residents in low income areas.

### 2.3.3 Corporatisation

In some cases a municipality can improve the delivery of service by corporatising it. This is done by creating a municipal company that will provide the service. The company belongs to council which is accountable for its performance. Council usually appoints a board to oversee the work of the company management. The company is able to function more independently than a municipal department, whilst acting under the overall control and supervision of council. Municipalities have to deliver many different services. Sometimes it is a challenge for them to focus on the best way to deliver certain specialised services. Allowing the company some independence makes it free to experiment with new techniques and technology (Republic of South Africa Constitution, Act No. 108 of 1996).

Water Demand Management does not have an independent company in its employ. The contractors that are hired by Water Demand Management to assist in delivering a service to the residents do not work independently. The contractors operate under the supervision of the department. The quality of their workmanship is closely monitored and controlled by the quality assurance officers from Water Demand Management.

### 2.3.4 Municipal service partnerships

There are instances where a municipality might feel that, instead of providing the service directly, they would rather hire someone to do it. One reason why a municipality would choose this route is that other municipalities, organisations or private companies may have better resources and management skills to provide the service. Whatever method a municipality chooses must always be in line with the overall goals of improving the quality of services. This can be done by extending services to residents who do not have them. Services must be provided at an affordable cost (Republic of South Africa Constitution, Act No. 108 of 1996).

The contractors who work for Water Demand Management are operating under the same objectives as the department. Water Demand Management strives to provide services that are affordable to the residents in low income communities. The contractors and Water Demand Management have an agreement, in terms of which, the contractors are required to provide basic water and sanitation services to the low income areas specified on the job list. The job list is issued daily to the contractors by Water Demand Management. The contractors have to deliver the services within the specified time frames, budgets and targets. It is the responsibility of the contractor to provide an excellent service, in order to meet the goals of Water Demand Management. The operating assets of the council are hired to the contractors. This is to assist them to perform the service more effectively and efficiently.

### 2.3.5 Implementation of a Municipality Service Partnership (MSP) in a Municipality

The Republic of South Africa Constitution (Act No. 108 of 1996), stipulates that when a municipality has decided to provide a service through a MSP, it must then decide on an appropriate service provider. This means that a provider must meet the municipality's delivery goals at an affordable price, and by means of affirmative procurement procedures.

The municipality must ensure the participation of local residents and small companies which are owned and operated by previously disadvantaged individuals. Sometimes the appropriate service provider could be an NGO or CBO. A private company, or a public body, such as another municipality or a water board, can also be a service provider.

Usually the best way to find the right service provider is to get a number of them to compete against each other in a bidding process. This helps the municipality to decide on the provider, which will provide the best quality of service at the best possible price. This protects the interests of citizens, as it reduces opportunities for corruption. The various bids are then evaluated, a preferred bidder chosen, and a contract negotiated. Once the contract has been signed, the MSP can begin to operate.

### 2.3.6 Operation of a municipality service partnership

The Republic of South Africa Constitution, Act No. 108 of 1996), expresses the view that the contract between the two parties will describe each side's rights and responsibilities. For example, for a refuse collection contract in a particular part of the community, the service provider may be required to provide refuse tips in designated areas, and empty them a certain number of times a week. The contract will also specify how often the service provider will receive payment. The fee may be fixed, or vary, based on the provider's performance.

The contract must state that the municipality has the right to inspect the operations of the service provider, to ensure that they are doing what they are supposed to do. If the service is not provided at a satisfactory level, the municipality has the right to take certain actions. For example, the municipality could withhold payment until the service provider acts in terms of the contract. In more serious cases the municipality could even end the contract. The municipality's most important job, during implementation of the MSP contract, is to monitor performances to ensure that all the requirements are being met, and that citizens receive the correct number and quality of services.

### 2.3.7 Role of citizens in Municipal Service Partnerships

The Republic of South Africa Constitution (Act No. 108 of 1996), points out that citizens and their organisations also have very important roles to play in the planning and implementation of MSP's. Some of these are:
$>$ Assisting the municipality to accurately decide on which services are to be expanded and improved, particularly during the planning stages.
$>$ Assisting council in consulting citizens during decision-making.
> Residents should work with NGOs, CBOs and political parties to develop proposals for council to consider.
$>$ Communities can request the municipality to appoint a committee of community representatives to monitor processes, as well as to advise the municipality on priorities for service extension and improvement.
> Communities, or their representatives, could also play some role in the evaluation of potential service providers, the involvement of communities in service provision, and the monitoring of the performance of service providers.

### 2.4 SERVICE LEVELS

The most important factor to consider is the level or standard at which the service is provided. The choice of the level of a particular service is influenced by affordability as well as community needs. When municipalities make decisions about the level of services, they should seriously consider the long-term viability of providing a service at that level. If a municipality provides a service at a higher level, the cost of providing the service increases, and so does the price. The municipality will have to charge its customers accordingly. Municipalities rely heavily on income received from users. If the costs are too high and people are unable to pay, the municipality could lose money. This can result in the municipality being unable to continue to provide the service. The following table lists the different service levels for the most important services.

Table 2. 1: Service Levels (Source: The Republic of South Africa Constitution, Act 108 of 1996)

| SERVICE TYPE | LEVEL 1 BASIC | LEVEL 2 <br> INTERMEDIATE | LEVEL 3 <br> FULL |
| :--- | :--- | :--- | :--- |
| Water | Communal standpipes | Yard taps and yard <br> tanks | In house water |
| Sanitation | Sewage collection/disposal | VIP latrine septic <br> tanks | Full water borne |
| Electricity | 5-8 Amp or non-grid <br> electricity | 20 Amps | 60 Amps |
| Roads | Graded | Gravel |  <br> kerbed |
| Storm water <br> drainage | Earth lined open channel | Open channel lined | Piped systems |
| Solid Waste <br> disposal | Communal (residents) | Communal <br> (contractors) | Kerbside |

### 2.5 PROVISION OF FREE BASIC MUNICIPAL SERVICES

As part of its overall strategy to alleviate poverty in South Africa, the Government has put in place a policy for the provision of a free basic level of municipal services. The provision of free basic amounts of electricity and water to the users could alleviate the plight of the poorest among the people. The plans for the stimulation of the local economy could lead to the creation of new jobs and the reduction of poverty. From the above statements it is clear that water and electricity have been prioritised as a free basic service for the poor.

However, the researcher is of the view that other services certainly also fit the definition of "basic services". For example, low-income residents in rural areas generally do not see electricity as critical, as they can access other sources of energy, such as wood or paraffin. Roads, or rather the lack of accessible roads negatively affects their daily economic activity, mobility and safety. This implies that some flexibility should be allowed for municipalities to determine which services they will define as basic services.

### 2.6 OPTIONS FOR FREE BASIC SERVICE

By far the most complex issue to consider when discussing the provision of free basic services, is the funding of such services.

Municipalities receive their part of the equitable share. They can apply for infrastructure grants and raise their own revenue through service charges. Municipalities need to analyse what their costs for free basic service provision are, what allocations they receive and what their internal resource base is. This should then form the basis of what would be affordable, and therefore what the most suitable options for implementation would be.

### 2.7 THE QUALITY FRAMEWORK TO ENHANCE SERVICE DELIVERY

There is a framework at Water Demand Management to assist the department in achieving the best value in providing services. This is conducted through continuous improvement initiatives. The aim of the framework is to promote good quality of water and sanitation services from Water Demand Management, to the residents in low income communities. The framework includes the following components:
> Quality Management System;
> by-laws; and
$>$ social regulations.

### 2.8 CHALLENGES

Water Demand Management has a number of challenges that still need to be addressed. These include the following:
$>$ Slow feedback of human resource issues from the corporate department: requests from the branch to corporate takes a long time to be attended to, be it working equipment or furniture requests. The response time is slow. The slow feedback from corporate affects the branch negatively. This also has a major impact on service delivery, as Water Demand Management has to wait on corporate for certain resource requests or human resource queries.
$>$ Security of water supply and water loss: The water pipes and reservoirs where water is being stored before distribution to citizens, require constant maintenance and extensive labour to avoid water losses due to potential deteriorating infrastructure.
> Informal settlements: It is difficult to install water supply lines through informal settlements as they are too congested.
> Budget restrictions: All the branches of Water and Sanitation are allocated an annual operating budget by Corporate Finance, but most of the time the budget is not adequate to conduct all the necessary operational activities.
> Poor workmanship of sub-contractors: Water Demand Management has strict requirements when employing contractors. However, when the contractors win the tender, they employ sub-contractors who are not always competent. The quality of workmanship of these sub-contractors is a major challenge for Water Demand Management.
> Increasing projects: The number of incoming projects from Executive Management of Water and Sanitation to Water Demand Management is increasing, but there are no additional resources.
$>$ Low morale: The majority of the staff feels demoralised due to increasing loads of work and hectic deadlines that are not always possible to meet.

### 2.9 STANDARDS

Water Demand Management has developed a set of practice standards to improve service delivery. The standards provide a clear direction on how excellent service delivery practice can be achieved in future, by Water Demand Management. These standards are understood by all employees working in Water Demand Management.

### 2.10 INTERNAL AUDIT

Water Demand Management has an ISO 9001:2008 quality management system in place. The system was implemented to help Water Demand Management to improve service delivery and other aspects of the department. Internal auditing forms part of this system. The department conducts internal audits three times a year. The purpose of the audit is to provide feedback on what is working well, and what can be improved within Water Demand Management. Even though the system has been implemented, it is fairly new and has not yet served its full purpose. The employees are still trying to adapt to it.

The employees at Water Demand Management are all responsible for providing an excellent service to the residents in low income areas. Quality is everyone's responsibility at Water Demand Management.

### 2.11 BENCHMARKING

Benchmarking activity is highly promoted at Water Demand Management. The managers give their full support throughout the department, to facilitate service improvement initiatives, whenever it is necessary. Benchmarking involves learning from others, and implementing good practice. It can play a key part in delivering high quality services and ensuring continuous improvement within Water Demand Management.

Benchmarking at Water Demand Management involves the following:
> Regularly comparing critical aspects of performance with the best practice that can be found, either within or outside the organisation.
$>$ Identifying gaps in performance.
$>$ Seeking new approaches to bring about improvements in performance.
> Monitoring progress and reviewing the results.

### 2.12 PROCESS MANAGEMENT

Managing processes at Water Demand Management is a critical element in the continual drive to efficiently meet service user needs and expectations. This is the essential part of service delivery management. The processes in Water Demand Management, support policy and strategy. They are central to the department and often involve input from all staff. The managers ensure that the key processes for each service area are identified, measured and improved, as needed. This is to ensure that service users are satisfied.

### 2.13 ENVIRONMENT MANAGEMENT AND SAFETY

Water Demand Management is currently planning on implementing ISO 14001: 2004 Environment and OHSAS 18001:2007 Safety and Health management
systems. The two systems will be integrated with ISO 9001:2008, which is currently in place. This will assist in improving the impact of service delivery of Water Demand Management for low income communities. The systems are planned to improve the conditions which plumbers and contractors work under on site. Other staff members and users will also benefit. This initiative will further assist Water Demand Management in having fewer safety-related accidents.

The systems will be implemented throughout the organisation in accordance with the requirements of international and national regulatory requirements. These systems will not only address requirements. They will provide values for employee behaviour in creating a safe working environment and culture. The support that is shown by top management, to implement these systems, is visible. The systems will be monitored, audited and continuously improved upon. Staff will be trained on how the systems work. The roles and responsibilities will be clearly defined to the employees. This is to ensure that everyone understands how the systems work in conjunction with each other.

## 2. 14 CONCLUSION

Many municipalities in South Africa have embarked on the journey of service delivery excellence to promote customer satisfaction among the citizens. This further ensures that the municipalities remain competitive in the market, both locally and globally. However, adopting a specific quality management system is not indicative of achieving excellence. The leadership of South African municipalities has to optimally be knowledgeable about features surrounding an innovative approach, aimed at improving the impact of service delivery to communities. For Water Demand Management, the perceptions of the residents in the low income area of Litha Park in Khayelitsha will be looked at in this research. Service delivery initiatives and improvements will be implemented, in order to alleviate the research problem. Chapter 3 will look at relevant literature under discussion in this field.

## CHAPTER 3:

### 3.1 INTRODUCTION

A literature review is a critical examination and analysis of a published body of knowledge that has been theorised and conceptualised by many scholars (Mouton, 2001:87). Watkins (2008:130), describes a literature review as a focus on a very specific problem that needs to be mitigated.

In this chapter, a literature review will be conducted, with regard to available publications on service delivery, and different aspects of customer satisfaction. The definition of service and 'voice of the customer' will be elaborated upon. The following areas will be looked at:
> Definition of service;
$>$ Voice of the customer;
> Customer needs and satisfaction;
> Customer Expectations;
> SERVQUAL;
$>$ Focus groups;
> Quality Function Deployment; and
$>$ KANO model.

### 3.2 DEFINITION OF SERVICE

The concept of 'service' comes from marketing literature, and many scholars have offered different definitions of 'service', based on their diverse perceptions about what a services constitutes (Chang, Chen \& Hsu, 2002:1). According to Zeithaml and Bitner (2003:3), services are defined as deeds, processes and performances. Perreault and McCarthy (1999:245), define services as deeds performed by one party for another.

Fitzsimmons and Fitzsimmons (2001:5), citing Quinn, Baruch and Paquette (1987:50) and Zeithaml and Bitner (2003:3), indicate that services include all economic activities whose output is not a physical product or construction. The output is generally consumed at the time of production, and provides added value in forms such as convenience, amusement, timeliness, comfort, or health, which are essentially intangible in nature. Kotler (1994:464), defines a service as any act or performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Kotler (1994:465), is of the opinion that services are intangible, inseparable, variable and perishable. The author further mentioned that services normally require more quality control, supplier credibility and adaptability.

According to Gronroos (1990:27), services represent activities, or a series of activities, of more or less intangible in nature. They normally take place in interactions between customers and service employees, physical resources or goods and systems of the service provider, which are provided as solutions to customer problems. Yong (2000:43), in reviewing the various definitions of a service, pointed out that the features of service are noteworthy in order to better understand the concept. The author further explains that service is a performance and occurs through interaction between consumers and service providers.

Yong (2000:47), expresses the view that other factors, such as physical resources or environment, play an important role in the process of service production and consumption. Service is needed by consumers to provide certain functions, such as problem-solving. Juxtaposing the features concludes that a service, combined with goods or products, is experienced and evaluated by consumers who have particular goals and motivations for consuming the service.

### 3.3 DEFINITION OF VOICE OF THE CUSTOMER (VOC)

Sproul (2001:45), defines 'voice of the customer' as a systematic approach for incorporating the needs of customers into the design of customer experiences. This definition contains the following three key elements:

### 3.3.1 A systematic approach

Most organisations take an informal approach to gathering customer feedback. The Voice of the Customer (VOC) programme should augment, not replace, the adhoc approaches, with a more structured way to gather and use customer insights.

### 3.3.2 Customer needs

Organisations often have access to a great deal of customer data. Customers' insights do not automatically surface from data. A good VOC programme uncovers the current and emerging needs of key customers. It helps in identifying areas where those needs are not being met.

### 3.3.3 Experience design

Gathering customer insights is only an interim step to improving customer experience. VOC programmes deliver the most value when organisations make changes to better serve the customer needs.

According to Crow (2002:1), quality can be defined as meeting customer needs and providing superior value. Meeting customer needs, requires that those needs be understood. The 'voice of the customer' is the term to describe the stated, and unstated, customer needs or requirements. The voice of the customer can be captured in a variety of ways. This includes the following:
$>$ Direct discussion or interviews;
$>$ Surveys;
$>$ Focus groups;
> Customer specifications;
> Observation;
> Warranty data; and
> Field reports.

### 3.4 CAPTURING THE VOICE OF THE CUSTOMER

Crow (2002:6), points out that once a product plan, which defines the target market and customers, is established, the next step is to plan how to capture the customers' needs for each development project. This includes the following:
$>$ Determining how to identify target customers.
> Knowing which customers to contact in order to capture their needs.
$>$ Understanding the mechanisms to use to collect their needs.
$>$ Scheduling an estimation of resources to capture the voice of the customer.

The author further mentioned that, as opportunities are identified, appropriate techniques are used to capture the voice of the customer. The techniques used will depend on the nature of the customer relationship, as illustrated in Figure 3.1 below.


Figure 3.1: Customer relationship, (Source: Crow, 2002:6)

Crow (2002:8), explains that there is not only one monolithic voice of the customer. Customer voices are diverse. In consumer markets, there are varieties of different needs.

Even within one buying unit, there are multiple customer voices. This applies to industrial and government markets as well. There are even multiple customer voices within a single organisation. These diverse voices need to be considered, reconciled and balanced, to develop a truly successful product. These involve of the following:
> The voice of the procuring organisation;
$>$ the voice of the user; and
$>$ the voice of the support, or maintenance organisation.

According to Crow (2002:12), marketing has the responsibility for defining customer needs and product requirements. This has tended to isolate engineering and other development personnel from the customer, and from gaining a firsthand understanding of customer needs. Customers' real needs can become abstract to other development personnel. Product development personnel need to be directly involved in understanding customer needs. This may include the following:
> Visiting or meeting with customers.
$>$ Observing customers using or maintaining products.
$>$ Participating in focus groups.
> Rotating development personnel through marketing, sales or customer support functions.

Sanger (1971:20), mentioned that the voice of the customer can provide an organisation with valuable information for innovations and customer services. Over a period, an organisation's value proposition of products and services becomes the expectation, and no longer the differentiator from the competitor. By actively pursuing the voice of the customer, organisations can continuously adjust their value proposition to the changing wants and needs of the customer. The organisation can determine the unknown wants and needs by staying close to the customer. Table 3.1 below illustrates common techniques for capturing the voice of the customer, and their strengths and weaknesses.

Table 3.1 Methods for capturing the voice of the customer, (Source: Sanger, 1971:20)

| Method | Strength | Weakness |
| :--- | :--- | :--- |
| Interviews | One on one | Sample size \&cost |
| Survey | Reach many customers | Low response rate |
| Focus groups | One on few | Group think |
| Quality Function Deployment |  <br> implementation | Leadership buy-in |
| Empathic design | Observation of current products | May not lead to new products |
| Lead users | Leaders in knowledge of future <br> products | Available resources for <br> deployment |

### 3.5 LISTENING TO THE VOICE OF THE CUSTOMER

Priebe (2004:56-59), points out that only the customer can define quality. This fundamental law of business illustrates the reason why it is important to understand the collective needs, wants and expectations of customers. This is what is meant by the term 'voice of customer'. The goal is to create a shared understanding with customers so that an organisation consistently delivers products that conform to requirements. Voice of customer (VOC) should be treated as a programme that integrates customer input into all aspects of the business. To visualise this, various levels of customer feedback are outlined below, as follows:

### 3.5.1 Relationship

The highest level of VOC is the customer's assessment of the overall business relationship. This is also referred to as customer satisfaction, or loyalty. Relationship feedback is typically gathered once or twice a year, via a standardised survey.

### 3.5.2 Products and processes

This focuses on requirements research. If a 'customer' is defined as any recipient of a good, service or work process (internal or external), then it makes sense that their input, when designing products and processes, be solicited.

Common data gathering methods include the following:
$>$ Interviews.
$>$ Focus groups.
$>$ Historical queries.
$>$ Competitive intelligence.
$>$ Benchmarking.
> Consumer reports.
$>$ Market research.
$>$ Ethnographical studies.
> Customer surveys

By fully integrating customer input into the product or process development lifecycle, a state of co-creation is achieved. This ensures that product specifications, service levels and quality metrics are perfectly synchronised with customer requirements.

### 3.5.3 Customer experience

This level focuses on transaction-based feedback. Every time an organisation interacts with a customer, an impression is created. If the organisation makes an effort, these impressions can be recorded, quantified and tracked. The first step in building this into a VOC programme is to identify which customer interactions should be measured. This usually includes the following:
$>$ Sales experience.
$>$ Onboarding.
> Product usage
$>$ Service Delivery.
$>$ Problem resolution.
Once the collection methods have been determined, clear processes for responding to customer input should be drawn. This applies to all levels. There is no point in gathering feedback unless an organisation is prepared to take action.

### 3.5.4 Ubiquitous VOC

This last level is called 'Ubiquitous VOC.' This can be the most challenging feedback to gather and classify, because it is typically unsolicited and unstructured. Customers' opinions regarding a company and its products is continually getting shared in a variety of mediums. This includes the following:
$>$ Customers' complaints to employees.
> Post messages online.
$>$ Email ideas for product improvement.
> Talk to others about how the organisation is treating its customers.
To understand and react to all the above points, the organisation must build robust communication channels for its customers and employees. The explosion of online mediums, web tools and social media sites can make this easier if the organisation is willing to get creative.

### 3.6 LEVELS OF ACTIVITIES IN A VOC PROGRAMME

Rheeder (1990: 56), states that there are five distinct levels of activities in a 'voice of the customer' programme. This involves the following:
> Relationship tracking: Organisations need to track the health of customer relationships over time. The organisation must conduct customer surveys. This should be done quarterly or annually. Feedback from the surveys must be used to improve the aspects of service delivery.
> Interaction monitoring: Every customer interaction from an online transaction, to a phone call to the call centre, is important. Organisations need a method to monitor how effectively they handle these customer interactions. Some organisations conduct post-interaction surveys. During these surveys they ask customers for feedback on recent interactions with the organisation.
> Continuous listening: Structured feedback through customer surveys provides enormous opportunities for analysis. Organisations must put processes in place for executives to regularly listen to customers. There are many opportunities to hear what customers are saying.
$>$ Project infusion: Projects that affect customers should incorporate insights about them.

Despite the clear need for this type of effort, many companies lack a formalised approach for infusing customer insights into projects. To ensure that this does not happen, some firms are incorporating customer insight steps in the front-end of their sigma processes.
$>$ Periodic immersion: It is valuable for all employees, including executives, to spend a significant amount of time interacting directly with customers, or working alongside frontline employees. These experiences, which should be at least a half day, provide an excellent opportunity for the organisation to question the status quo.

### 3.7 INVOLVEMENT WITH CUSTOMERS

Seko (2004:17), points out that direct involvement with the customers is important. Direct involvement provides the following:
$>$ Better understanding of customer needs.
$>$ The customer environment.
$>$ Product use.
$>$ Development of greater empathy on the part of product development personnel.
> Minimisation of hidden knowledge.
$>$ Overcoming technical arrogance.
> Better perspective for development decisions.

These practices have resulted in fundamental insights, such as the engineering of highly technical products. When a company has a direct relationship with a very small number of customers, it is desirable to have a customer representative on the product development team. Alternatively, mechanisms, such as focus groups, should be used where there is a larger number of customers, to ensure on-going feedback over the development cycle. Current customers, as well as potential customers, should be considered and included. This customer involvement is useful for defining requirements, answering questions and providing input during development, and critiquing a design or prototype (Seko, 2004:19-20).

The author further states that customers are the first source of information if the product is aimed at the current market. It is important to communicate with potential customers because they are the primary source of information. Customers provide a good source of information on the strengths of competitors' products. Lead customers are a special class of customers who can provide important insights, particularly with new products. Lead customers are those customers who are the most advanced users of the product; customers who are pushing the product to its limits; or customers who are adapting an existing product to new uses.

Joubert (1993:46), mentioned that during customer discussions, it is essential to identify the basic customer needs. Frequently, customers will try to express their needs in terms of how the need can be satisfied, and not in terms of what the need is. This limits consideration of development alternatives. Development and marketing personnel should ask questions, until they truly understand what the root need is. They should break down general requirements into more specific requirements, by probing what is needed. Customer requirements need to be challenged, questioned and clarified until they make sense. Situations and circumstances must be documented to illustrate a customer need. It is important to address the priorities related to each need. Not all customer needs are equally important. In order to prioritise customer needs, ranking and paired comparisons must be used. Fundamentally, the objective is to understand how satisfying a particular need influences the purchase decision.

According to Meyer (2000:104), to obtain an understanding of customer needs, it is important to obtain the customer's perspective on the competition, relative to the proposed product. This may require follow-up contact once the concept for the product is determined or a prototype is developed.

### 3.8 COLLECTING CUSTOMER INFORMATION

In each technique, the organisation is trying to secure the customer's view point on satisfaction

The organisation identifies the customer's needs and determines new and future needs that are either unknown or difficult to describe by the customer. Interviews, surveys and focus groups are targeted at asking the customer questions to determine their requirements. Quality Function Deployment and Emphatic Design take the process a step further by incorporating observation to the questioning technique (Spears, 1996:12-14).

The author further stated that, lead user process is a more advanced process which networks knowledgeable experts together to develop new products and services. The primary purpose of the 'voice of the customer' is to assist an organisation with innovation. The innovation allows the company to serve the customers with new products and services, which lead to loyal customers and increased profits for the organisation. Innovation is the key to reinventing the value proposition of an organisation, and by including the customer, it creates a fair 'win-win' situation.

### 3.9 IDENTIFYING CUSTOMER NEEDS

Tovey (1973:34-35), explains that an organisation will only gain a competitive edge if it has correctly identified its customer needs. In order to identify customer needs, and make use of this information, an organisation will need to do the following:
$>$ Communicate with customers and find out how their needs can be satisfied;
$>$ establish ways to record and interpret customer feedback; and
$>$ use this information when making important decisions about marketing, buying, merchandising and selling.

### 3.10 ORGANISING CUSTOMER NEEDS

Yevu (1972:17-24), explains that once customer needs are gathered, they have to be organised. The mass of interview notes, requirements documents, market research and customer data, needs to be distilled into a handful of statements that express key customer needs. Affinity diagramming is a useful tool to assist with this effort. Brief statements which capture key customer needs are prepared to avoid any misinterpretation.

These are organised into logical groupings or related needs. This makes it easy to identify any redundancy and serves as a basis for organising the customer needs.

### 3.11 CUSTOMER ENGAGEMENT AND CUSTOMER SATISFACTION

According to Andries (1999:19-30), organisations are increasingly seeking to maximise the value of their customer satisfaction measurement investment. Customer satisfaction is good, but it does not result in a secure customer. Satisfied customers may be pleased with a recent experience, but often do not have an emotional connection with the company. This lack of emotional connection often results in customers with high levels of customer satisfaction, switching to competitors for reasons such as a minor cost difference, or a slightly more convenient location.

Olain (2001:67), is of the view that customer engagement is good for an organisation. Customer engagement is used by the best and most successful organisations in the world. Characteristics of customer engagement involve the following:
> Retention: Engaged customers will spend more with you over their lifetime, than with your competitors.
> Effort: Engaged customers will actually go out of their way to do business with you. They even spend more, to benefit from your products, service and brand.
> Advocacy: Engaged customers spread the good word, making it easier and cheaper for you to attract new customers.
> Passion: Engaged customers are passionate about the brand. They are so passionate that they may even spend time actively promoting the brand to others or defending the brand, if others speak negatively about it.

### 3.12 TAKING ACTION ON CUSTOMER FEEDBACK

Moll (2005:29), states that every time a customer provides feedback on experience, organisations have the opportunity to use that feedback to improve their business. Some organisations utilise this feedback to view general trends over time. Unfortunately, a majority of organisations focus on aggregate trends rather than empowering managers to take the best actions on customer feedback to improve customer engagement. Organisations need to take the best actions on customer feedback. The VOC programmes should be designed to assist managers to respond in the most effective way to customer feedback. This includes the following:

### 3.12.1 Questions designed for action

Question sets are designed to enable clients to take action on specific aspects of the customer experience. Tracking surveys are short and enjoyable for the client or customer.

### 3.12.2 Action Alerts

Based on the individual customer responses to specific questions in the survey, action alerts are sent directly to the designated people within the client organisation, immediately after the customer submits feedback. VOC consists of the following five types of action alerts.
$>$ Recover.
$>$ Grow.
$>$ Recognise.
$>$ Improve.
> Market.

### 3.12.3 Action Alert Management

After an action alert is sent, a case is automatically created in the VOC centre and assigned to the appropriate person who provides updates regarding progress.

This person, or a supervisor, can then close out cases, as appropriate actions are taken. Suggestions are provided on what specific actions will be most effective. This will depend on the type of action alert generated. Successful actions are recorded, tracked and shared within the entire organisation.

### 3.12.4 Manager Action Planning Tool

This enables managers to identify areas of focus that, if improved, will have the greatest impact on customer engagement within their location. This tool includes a proprietary library of best-practice actions for each question in the survey.

### 3.13 CUSTOMER-DRIVEN PROCESS ENTERPRISE

Lopez (1983:17), mentioned that every organisation wants to satisfy its customers. The organisations discuss customer surveys and the gathering of 'voice of customer'. Some organisations have even allocated responsibility for collecting and analysing the information received from surveys. When there is a strong performance related to customer relationships, the following characteristics are observed:
$>$ The focus is on process, rather than on functions. The reason for this is simple. When focus is on the process, the organisation focuses on resolving the causes of problems and measuring upstream metrics that give early warnings. When organisations focus on functions, it is usually an indication of the desire to attribute or deflect blame.
$>$ Employees know, and accept their roles in the processes they own.
> Everyone understands how the organisation's processes are operating. People know how things fit in. The people do not just look at their processes, or their role in a process, but they begin to understand, and relate to, how the processes are linked. When people focus on their linkages, there are fewer hidden processes.
$>$ Processes are measured objectively, and measures are reported regularly.

An organisation needs to bring together all its initiatives under one umbrella responsible for the business's improvements. The organisation needs to
communicate the seriousness of the need. One of the best ways to do that is to put the customer information in front of the process owners. Most of the time the customer data is hidden. People are given just what the organisation believes they need to know, to do their jobs. The customer data, especially the most unpleasant, which, in fact, is the most motivating, is locked up, so that no one knows the bad news. This just means that no one knows the need to change. Leadership need to be committed.(Khan, 1990:67).

### 3.14 CUSTOMER EXPECTATIONS

According to Zeithaml and Bitner (2003:86), customer needs, or expectations, change over time, due to a variety of factors such as customer emotional responses, attribution, or perceptions of quality. Throughout the service cycle, customers have different experiences which ultimately impact on their satisfaction. Customer satisfaction is dynamic. When measuring customer satisfaction, or service quality dimensions, the evaluating organisations should identify a point in the experience cycle that needs more focus and attention.

Kumar, Aaker and Day (1999:575), point out that the importance for organisations to develop a customer satisfaction programme, is to measure performance and satisfaction over time. The organisations feel that the majority of dissatisfied customers never complain. Most of these silent, dissatisfied, customers sometimes choose not to buy again from the company they are dissatisfied with. According to Zeithaml and Bitner (2003:135), a sound measure of service quality is necessary for identifying aspects of services needing performance improvement, assessing how much improvement is needed on each aspect, and evaluating the impact of improvement efforts. Wisniewski (2001: 380), explains that obtaining adequate information about the quality of services as perceived or expected by customers, is absolutely necessary for evaluating an organisation's performance. Feedback obtained from customer surveys could be misleading, from both policy and operational perspective.

Based on the above discussion, one may argue that information about customer expectations and perceptions of quality of services should not only be adequate,
but should also be gathered accurately, using the right measuring instrument or methodology.

In this regard, Jain and Gupta (2004:25), state that different scales for measuring service quality have been put forward by researchers, based on their perceptions about service quality. The authors further state that, SERVQUAL and SERVPERF are the two major service quality measurement scales, but it is still unclear as to which one is the more superior. However, in the authors view, SERVQUAL scale outperforms SERVPERF scale. SERVQUAL possesses higher diagnostic powers to pinpoint areas for managerial interventions, in the event of service quality shortfalls.

### 3.15 SERVQUAL

According to Parasuraman, Zeithaml and Berry (1988:12), the SERVQUAL scale was first published in 1988, but has since undergone numerous improvements and changes. In terms of its applicability, it has been noted that the SERVQUAL scale has been extensively used by many service research institutions and organisations. The scale can be applied in different service settings, including local authorities. The SERVQUAL scale allows an organisation to determine the aspects on which it has to work to improve the global perception of its service quality. The organisation does so by comparing customer expectations of their services with their perceptions of what is received or offered to them by the organisation. In spite of its extensive use, the SERVQUAL scale has also attracted numerous criticisms around its universal applicability. The issues concerning its dimensionality and validity are questionable.

According to Llosa, Chandon and Orsingher (1998:19), the SERVQUAL scale has been replicated in many different service categories, so as to examine its generalisation. Some of the results show that conceptual and methodological problems exist, regarding the measurement of perceived service quality and its true dimensionality.

Building from the above discussion, and also taking into account the positive elements of the SERVQUAL scale, it is evident that the SERVQUAL scale could be useful in this research, for determining the gap between user expectations and perceptions of service delivery from Water Demand Management. Since this research is aimed at assessing the impact of service delivery of Water Demand Management to low income communities, it is deemed important to draw a distinction between services and goods, or manufactured products.

According to Fitzsimmons and Fitzsimmons (2001:5), Perreault and McCarthy (1999:245), and Zeithaml and Bitner (2003:5), goods and services should be distinguished on the basis of their attributes. Goods are tangible physical objects which can be created and transferred. They can exist over time and therefore can be stored and used later. Services tend to be intangible, unlike goods or manufactured products. Goods are created and used. For example, a customer, after watching a movie at the cinema, would at least have a sound memory of the movie that was played, but cannot take ownership of anything tangible. The above example explains why services cannot be touched, or owned, by consumers.

From the above discussion, it is evident that intangibility is the key determinant of whether provision of something is a service or not.

### 3.16 FOCUS GROUPS

According to Nkomo (2000: 89), focus groups are a common mechanism for gathering the voice of the customer through a structured group interview. They provide an opportunity to get multiple customers together to discuss their needs, evaluate concepts, and provide feedback to developers. Focus groups are used to elicit a range of ideas, attitudes, experiences, and opinions held, by a selected sample of participants on a defined topic. There are two basic types of focus groups. These are:
$>$ Exploratory focus groups: used to discuss customer needs, develop concepts for new products and evaluate new concepts of products; and
$>$ experiential focus groups: used to observe customers using products (and to learn from those observations) or to hear motivations for the purchase of a product.

Focus groups require an experienced facilitator to plan and organise the session, invite participants, and conduct the session.

The sessions are typically one to three hours in length. The objectives need to be clearly identified. Based on this, the facilitator should develop a presentation and a discussion guide. Customers must be identified and recruited. There are, typically, eight to twelve participants per session. A moderator will start with introductions, describe procedures, and often make a product presentation. Usually the session is observed by multiple people in a separate room and it is also audio- and video-taped to accurately capture all of the comments and feedback from customers (Smith, 2003: 80).

It is important to keep in mind that, because the numbers involved are small, the participants cannot be expected to be thoroughly representative, in a statistical sense, of the target population from which they are drawn, and findings cannot reliably be generalised beyond their number. Consideration must be taken in selecting the participants. Multiple sessions should be conducted to increase the validity of the results (Dladla, 2005:55-61).

### 3.17 CUSTOMER INTERVIEWS

Kruger (1993:43), explains that customer interviews are a common mechanism for gathering the voice of the customer. Customer interviews are usually conducted one-on-one with an individual customer, or with a small number of people from the same business or family unit.

They provide an opportunity to get in-depth information from a single customer. The interviews are used to understand the following questions:
$>$ What is the customer's problem or need?
> How will the product solve the customer's problem or need?
> What are the specific customer's needs that must be satisfied to address the customer's problem?
> What are the priorities of these needs? What is most important to the customer in making a buying decision?
$>$ What are the strengths and weaknesses of products, versus the competition?
> What are the customer's business issues?

The first step in the process is to identify the customers to interview. Based on market segment characteristics and dimensions, the organisation should work with marketing and sales people to identify potential customers. Current customers, competitors' customers, and potential customers should be taken into consideration. Various company contacts, channels and mechanisms must be utilised to pursue customer visits and interviews. If the interviews are within a business, meetings with individuals that interact with the product in different functions, need to be scheduled (Chuene, 1960:21).

Kruger (1993: 43), further states that there are two types of customer interviews. These include 'planned' and 'ad-hoc'. Planned interviews are scheduled ahead of time and are typically longer in duration. They usually take one and half, to two hours. Ad-hoc interviews are requested on the spot, at places such as shopping malls or stores.

### 3.18 THE KEYSTONE CUSTOMER

Increasing economic pressure from competition, government and rapidly changing technology has forced organisations to give more responsibilities to their few employees. Internal company services are no longer ancillary activities, but have become critical processes in assuring end customer satisfaction, and achieving organisational objectives. Many service organisations are part of a chain of customers. Quality Function Deployment (QFD) can accommodate multiple customers.

The keystone customer determines the success or failure of a service, as illustrated in Figure 3.2 below. In QFD, it is important that the needs of the keystone customer be addressed first (Mazur, 1991: 3).


Figure 3.2: The Key customer, (Source: Mazur, 1991:3)

### 3.19 COHERENT SERVICE PLANNING

Zultner (1992:84-97), is of the opinion that once customer requirements are known, they must be translated into actionable plans and communicated throughout the service organisation. This requires analysing the customer needs for expected requirements; designing and planning new services and facilities; developing training programmes and finally implementing the new service. Traditional development lacks the structure to communicate what matters most to the customer, and to align organisational components and employees behind these critical requirements. This system is incoherent and inefficient. Thus, more time is spent correcting and adjusting customer complaints than planning it correctly the first time (See Figure 3.3).


Figure 3.3 Incoherent Planning and Development, (Source: Zulter, 1992:84)

### 3.20 QUALITY FUNCTION DEPLOYMENT

According to Barnet and Smith (1992: 34), Quality Function Deployment (QFD) is a way of making the 'voice of the customer' heard throughout an organisation. It is a systematic process for capturing customer requirements and translating these into requirements that must be met throughout the supply chain. The result is a new set of target values aimed at for designers, production people, and even suppliers, in order to produce the output desired by customers.

### 3.21 HISTORY OF QUALITY FUNCTION DEPLOYMENT

Mizuno and Akao (1993:67-80), state that Quality Function Deployment began more than twenty years ago in Japan, as a quality system focused on delivering products and services that satisfy customers. To efficiently deliver value to customers, it is necessary to listen to the voice of the customer throughout the product or service development process. Quality experts in Japan developed the tools and techniques of QFD and organised them into a comprehensive system to assure quality and customer satisfaction in new products and services (See Figure 3.4 below).


Figure 3.4 History of QFD, (Source: Mizuno \& Akao, 1993:67)

### 3.22 QUALITY FUNCTION DEPLOYMENT PROCESS

Quality Function Deployment begins with product planning. It then continues with product design and process design, and finishes with process control, quality control, testing, equipment maintenance and training. As a result, this process requires multiple functional disciplines to adequately address this range of activities. QFD is synergistic with multi-function product development teams. It can provide a structured process for these teams to begin communicating, making decisions and planning the product.

It is a useful methodology, along with product development teams, to support a concurrent engineering or integrated product development approach, as illustrated in Figure 3.5 below (Crow, 2002:8-10).


Figure 3.5 QFD Methodology Flow, (Source: Crow, 2002:8-10)

According to Crow (2002:15-17), Quality Function Deployment, by its very structure and planning approach, requires that more time be spent up-front in the development process, making sure that the team determines, understands and agrees with what needs to be done, before plunging into design activities. As a result, less time will be spent downstream because of differences of opinion over
design issues or redesign, because the product was not on target. It leads to consensus decisions, greater commitment to the development effort, better coordination, and reduced time over the course of the development effort.

Crow (2002:20), further states that QFD requires discipline. It is not necessarily easy to get started with. The following is a list of recommendations to facilitate initiation, with QFD:
> Obtain management commitment to use QFD.
> Establish clear objectives and scope of QFD use.
> Establish multi-functional team.
$>$ Get an adequate time commitment from team members.
> Obtain QFD training with practical hands-on exercises to learn the methodology and use a facilitator to guide the initial efforts.
$>$ Schedule regular meetings to maintain focus
> Avoid gathering perfect data. Many times significant customer insights and data exist within the organisation, but they are in the form of hidden knowledge. They are not communicated to people with the need for this information. It may be necessary to spend additional time gathering the voice of the customer before beginning QFD.
> Avoid technical arrogance and the belief that company personnel know more than the customer.

According to Phillips (2000: 91), Quality Function Deployment is an extremely useful methodology to facilitate communication, planning, and decision-making within a product development team. It is not a paperwork exercise, or additional documentation that must be completed in order to proceed to the next development milestone. It does not only bring the new product closer to the intended target, but reduces development cycle time and cost in the process.

### 3.23 BENEFITS OF QUALITY FUNCTION DEPLOYMENT

According to Mulder (1996: 21), the benefits of QFD are categorised into process and bottom line benefits, as follows:

### 3.23.1 Main 'process' benefits of using QFD are:

$>$ Improved communication and sharing of information within a cross-functional team tasked with developing a new product. This team will typically include people from a variety of functional groups, including marketing, sales, service, distribution, product engineering, process engineering, procurement and production.
$>$ The identification of holes in the current knowledge of the design team.
> The capture and display of a wide variety of important design information in one place, in a compact form.
> Support for understanding, consensus and decision making.
$>$ The creation of an informational base, which is valuable for repeated cycles of product or service improvement.

### 3.23.2 Main 'bottom line' benefits of using QFD are:

$>$ Greater likelihood of product success in the marketplace, due to the precise targeting of key customer requirements.
$>$ Reduced overall design cycle time, mainly due to reduction in time-consuming design changes.
> Reduced overall cost due to reducing design changes, which are not only time consuming but very costly, especially those which occur at a later stage.
$>$ Reduced product cost, by eliminating redundant features and over-design.

### 3.24 THE DEPLOYMENT OF SERVICE QFD

According to Mizuno and Chalmers (1992; 17), organisational deployment is used to map the QFD steps to the different organisational functions. This includes the following:
$>$ President.
> Marketing and planning.
$>$ Development
$>$ Training.
$>$ Customer service

Organisational deployment shows that it is responsible for activities during the service planning and development process. Often, it is used with a responsibility matrix to clarify organisational roles. Organisation deployment is recommended to be actioned before QFD is applied to a specific service. This will ensure that the necessary team players understand their respective roles, activities and schedules (See Table 3.2).

Table 3.2 Organisation Deployment Chart, (Source: Mizuno and Chalmers, 1992: 17)


Mazur (1992: 76), explains that task deployment is used to break down critical jobs into tasks and steps. It identifies what the tasks and steps are, and the responsible parties. The task deployment table can be used to yield valuable information. This includes the following:
$>$ Job descriptions.
$>$ Schedules.
$>$ Floor plans.
$>$ Standards.
$>$ Equipment.
$>$ Training requirements.

The next section discusses the Kano Model. This model assists organisations in understanding their customer requirements. When the customer requirements are clearly understood, the organisation can come up with different strategies of
promoting customer satisfaction. In the section below three customer requirements are elaborated upon.

### 3.25 KANO MODEL APPROACH

Kano (1984:39-48), mentioned that, in order to satisfy customers, an organisation must understand how meeting their requirements affects satisfaction. There are three types of customer requirements to consider (See Figure 3.6).

### 3.25.1 Revealed requirements

This is typically what an organisation gets by asking customers what they want. These requirements satisfy or dissatisfy in proportion to their presence or absence in the product or service. Fast delivery would be a good example. The faster or slower the delivery, the more the customers like or dislike it.

### 3.25.2 Expected requirements

These requirements are often basic. The customer might fail to mention them until the organisation fails to perform them. They are basic expectations without which the product or service may cease to be of value. Their absence is very dissatisfying. Further, meeting these requirements often goes unnoticed by most customers. Expected requirements must be fulfilled.

### 3.25.3 Exciting requirements

These are difficult to discover. They are beyond the customers' expectations. Their absence does not dissatisfy. Their presence excites the customers. Since customers are not apt to voice these requirements, it is the responsibility of the organisation to explore customer problems and opportunities to uncover such unspoken items. World-class services have to meet all these three types of requirements, not just what the customer says.


Figure 3.6 The Kano Model, (Source: Kano, 1984:51)

Kano's model, depicted in Figure 3.6, is dynamic in that, what excites the customers today is expected tomorrow. That is, once introduced, an exciting service will soon be imitated by competitors and customers will come to expect it from everyone. An example would be special long distance telephone rates at certain hours. Expected requirements can become exciting after a real or potential failure. An example might be the passengers applauding a pilot who has safely manoeuvred a landing, despite severe weather conditions. The Kano Model has an additional dimension, regarding which customer segments the target marketing includes. Knowing which customer segments the organisation wishes to serve is critical to understanding their requirements (Gaucher \& Walker, 1991:72-74).

William and Gibson (1991:73-91), are of the opinion that eliminating service problems can be likened to expected requirements. There is little satisfaction or competitive advantage when nothing goes wrong. Conversely, great value can be gained by discovering and delivering exciting requirements ahead of the competitors. The exciting customer needs, which are tied to adding value, are unspoken and thus invisible to both the customer and the producer or service provider. They change over time, technology and market segment. The voice of customer analysis tools and techniques were created to break through this. Understanding the true needs of customers requires work on the part of the organisation. This is not an easy task.

### 3.26 CONCLUSION

This chapter discloses a theory gathered from various literatures sources, in order to improve service delivery. The definitions of service, voice of the customer (VOC) programmes, and involvement of customers were uncovered. Capturing the voice of the customer, listening to the voice of the customer, collecting customer information, identifying and organising customer needs, engagement with customers, customer satisfaction initiatives, taking action on customer feedback, customer driven enterprise, understanding customer expectations, using SERVQUAL, forming focus groups, conducting customer interviews, understanding the keystone customer and its role in service delivery, the history of Quality Function Deployment (QFD), the Quality Function Deployment process, and adaption of KANO model approach, were all identified as critical success factors for improving service delivery within an organisation. Having an appropriate theory on service delivery, VOC programmes' application and service excellence requirements simply allow the student researcher to look forward to the next chapter, which will tackle the research survey, design and methodology.

## CHAPTER 4: KNOWLEDGE MANAGEMENT SURVEY DESIGN AND METHODOLOGY

### 4.1 THE SURVEY ENVIRONMENT

Water Demand Management consists of various functional areas in the low income communities of the Cape Metropole. The various functional areas, which will serve as the research environment in Khayelitsha, include the following phases in Ward 3 at Litha Park:
> Mew Way;
> Hlungulu Crescent;
> Ngwamza;
> Gwava;
> Mbaneni; and
> Sikhova.

### 4.2 AIM OF THIS CHAPTER

The aim of this chapter and the survey contained therein is to determine what the key factors are that impact on service delivery of Water Demand Management for low income communities. The ultimate objective is to solve the research problem as defined in Chapter 1, Paragraph 1.2, and which reads as follows: "Poor service delivery from Water Demand Management to low income areas results in dissatisfaction and discontent".

### 4.3 THE TARGET POPULATION

With any survey, it is necessary to clearly define the target population, which Watkins (2008), citing Collis \& Hussey (2003: 157), defines as: "A population is any precisely defined set of people or collection of items which is under consideration".
$>$ The 'sampling frame' is defined by Vogt (1993) and cited by Collis and Hussey (2003: 150-160), as 'a list or record of the population from which all the sampling units are drawn.' For this survey, 80 households, randomly selected from Khayelitsha at various phases of Ward 3 in Litha Park represent the sampling frame. This transposes into 80 households (See paragraph 4.1) being randomly selected.

The organisation has a five level hierarchy, which is made up as follows:
$>$ Executive: the executive, supports the organisations' directors and manages the department.
> Branch Manager (BM): responsible to the Executive, and manages a branch functional area.
> Section Head (SH): responsible to a BM, and manages a functional area.
$>$ Senior Professional Officer (SPO): responsible to a SH and manages a business unit within a functional area.
> Professional Officer (PO): A professional individual.
> Staff: Shop floor personnel responsible for carrying out service delivery duties.

The target population was specifically chosen in order to validate the practicality of the concepts as presented here. The risk of bias, which cannot be statistically eliminated, is recognised by the author, based on the very definition of the target population, as well as the number of respondents selected.

### 4.4 DATA COLLECTION

According to Emory and Cooper (1995:278), three primary types of data collection (survey) methods can be distinguished, namely:
$>$ Personal interviewing.
$>$ Telephone interviewing.
$>$ Self-administered questionnaires/surveys.

Primary data or evidence will be collected using self-administered questionnaires, which fall within the ambit of a broader definition of 'survey research' or
'descriptive survey'. The concept of survey is defined by Watkins (2008), citing Remenyi et al. (2002:290) as: "...the collection of a large quantity of evidence, usually numeric, or evidence that will be converted into numbers, normally by means of a questionnaire. A questionnaire is a list of carefully structured questions, chosen after considerable testing, with a view to eliciting reliable responses from a chosen sample. The aim is to establish what a group of participants do, think or feel. A positivistic approach suggests structured 'closed' questions, while a phenomenological approach suggests unstructured 'openended' questions. In this research a positivistic approach will be used. The evidence collected could suggest ways in which the organisation could improve the service delivery strategy.

The data collection method used in the survey, falls within the context of a survey, defined by Hussey and Hussey (1997), as:
> "A sample of subjects being drawn from a population and studied to make inferences about the population"

More specifically, the survey conducted in this dissertation falls within the ambit of the 'descriptive survey' as defined by Ghauri, Grønhaug and Kristianslund (1995). The data collection method used falls within the ambit of both the definitions attributed to the concepts 'survey' and 'field study'. 'Survey', according to Gay and Diebl (1992:238), is an attempt to collect data from members of a population in order to determine the current status of that population with respect to one or more variables. Kerlinger (1986:372), defines 'field study' as non-experimental scientific inquiries aimed at discovering the relations and interactions among ... variables in real ... structures. As in the case of most academic research, the collection of data forms an important part of the overall dissertation content.

### 4.5 MEASUREMENT SCALES

The survey will be based on the well-known Lickert scale, whereby respondents were asked to respond to questions or statements (Parasuraman 1991:410) in order
to determine consensus, probability and importance. The Lickert scale was chosen, due to its ability to be used in both respondent-centred (how responses differ between people) and stimulus-centred (how responses differ between various stimuli) studies, most appropriate to glean data in support of the research problem in question (Emory and Cooper 1995:180-181). According to Emory and Cooper (1995:180-181), the advantages in using the Lickert scale are:
$>$ Easy and quick to construct.
> Each item meets an empirical test for discriminating ability.
> The Lickert scale is probably more reliable than the Thurston scale, and it provides a greater volume of data than the Thurston differential scale.
> The Lickert scale is also treated as an interval scale.

According to Remenyi, Money and Twite (1995:224), interval scales facilitate meaningful statistics when calculating means, standard deviations and Pearson correlation coefficients. To generate a significant amount of data, other means, such as rated responses and numeric scales, will also be used.

### 4.6 THE DEMAND FOR A QUALITATIVE RESEARCH STRATEGY

While this author acknowledges that a number of strategies can be applied in similar research projects, the well-known concepts of objectivity and reliability, as inherited from the empirical analytical paradigm, are suggested for business research in more or less the traditional way. Quoting Thorndike \& Hagen, these concepts are defined by Emory \& Cooper (1995:156), as follows:
$>$ Practicality: Practicality is concerned with a wide range of factors of economy, convenience, and interpretability.
> Validity: Validity refers to the extent to which a test measures what we actually wish to measure. Yin (2003:34), identifies 3 subsets to the concept validity, namely: Construct validity, internal validity and external validity.
> Reliability: Reliability has to do with the accuracy and precision of a measurement procedure.

### 4.7 SURVEY SENSITIVITY

The research is conducted in areas of a sensitive nature. A case like this survey poses particular challenges to the researcher.
The following guidelines from various academics serve to illustrate the mitigation process, which can be deployed in an instance where research is conducted in areas of a sensitive nature:
> A qualitative investigation of a particularly sensitive nature conducted by Oskowitz and Meulenberg-Buskens (1997:83), qualified the importance of handling mission critical issues, as identified above, when the authors stated:
"Thus any type of qualitative investigation could benefit from the researchers being skilled and prepared, and the sensitive nature of an investigation, into a stigmatizing condition made the need for such an undertaking even more imperative in the current study".
$>$ The sensitivity of certain issues, and issues identified as impacting on the research negatively in the environments being evaluated, not only demand intimate personal involvement, but also demand the 'personal and practical experience' of the researcher. This view was upheld by Meulenberg-Buskens (1997:94), as being imperative to assure that the quality in qualitative research is undertaken. Checkland (1989:152), supports this view, but extends the concept with the opinion that: "The researcher becomes a participant in the action, and the process of change itself becomes the subject of research".

### 4.8 SURVEY DESIGN

Collis \& Hussey (2003:60), are of the opinion that, 'if research is to be conducted in an efficient manner and makes the best of opportunities and resources available, it must be organised.' Furthermore, if it is to provide a coherent and logical route to a reliable outcome, it must be conducted systematically, using appropriate methods to collect and analyse the data. A survey should be designed in accordance with the following stages:
$>$ Stage one: Identify the topic and set some objectives.
$>$ Stage two: Pilot a questionnaire to find out what people know, and what they see as the important issues.
$>$ Stage three: List the areas of information needed and define the objectives.
$>$ Stage four: Review the responses to the 'pilot.'
$>$ Stage five: Finalise the objectives.
$>$ Stage six: Write the questionnaire.
$>$ Stage seven: Re-pilot the questionnaire.
$>$ Stage eight: Finalise the questionnaire.
> Stage nine: Code the questionnaire.

The survey design, to be used in this instance, is that of the descriptive survey, as opposed to the analytical survey. The descriptive survey is, according to Collis \& Hussey (2003:10), frequently used in business research in the form of attitude surveys. The descriptive survey, as defined by Ghauri, Grønhaug and Kristianslund (1995:60), has furthermore the characteristics to indicate how many members of a particular population have a certain characteristic. Particular care was taken to avoid bias in the formulation of the questions.

The statements within the survey have been designed with the following principles in mind:
$>$ Avoidance of double-barrelled statements.
$>$ Avoidance of double-negative statements.
> Avoidance of prestige bias.
$>$ Avoidance of leading statements.
$>$ Avoidance of the assumption of prior knowledge.

Statements were so formulated as to allow the same respondents to respond to each of the two questionnaires, to determine if a paradigm shift occurred after the concept of 'knowledge management' was adopted.

### 4.9 THE VALIDATION SURVEY QUESTIONS

The author has developed survey questionnaires. Questions were prepared and piloted to ensure they reflected a high degree of 'validity' (Easterby-Smith, Thorpe \& Lowe, 1996).

### 4.9.1 Questionnaire on service delivery for low income communities

Question 1: Plumbers do not fix water leaks. To what extent do you personally agree or disagree with this statement?

Question 2: Broken cisterns are not replaced and attended to by plumbers. To what extent do you personally agree or disagree with this statement?

Question 3: The water flow pressure from the taps is low. To what extent do you personally agree or disagree with this statement?

Question 4: The water meters are always faulty. To what extent do you personally agree or disagree with this statement?

Question 5: Plumbing material being used is of poor quality. To what extent do you personally agree or disagree with this statement?

Question 6: Site awareness facilitators are rude and not helpful. To what extent do you personally agree or disagree with this statement?

Question 7: Site awareness facilitators give wrong information. To what extent do you personally agree or disagree with this statement?

Question 8: No education on water wastage is provided. To what extent do you personally agree or disagree with this statement?

Question 9: Job cards are not signed by the owner. To what extent do you personally agree or disagree with this statement?

Question 10: There is a lack of site inspection prior to water meter installation. To what extent do you personally agree or disagree with this statement?

Question 11: There are no follow-up inspections after completion of repairs. To what extent do you personally agree or disagree with this statement?

Question 12: The daily water allocation of 350 litres is not sufficient. To what extent do you personally agree or disagree with this statement?

Question13: The water coming out of taps is not always fit for human consumption (smelling). To what extent do you personally agree or disagree with this statement?

Question 14: Plumbers go to the wrong households when attending to complaints. To what extent do you personally agree or disagree with this statement?

Question 15: Call centre staff does not answer complaint calls on time. To what extent do you personally agree or disagree with this statement?

Question 16: Plumbers do not attend to complaints within the specified time. To what extent do you personally agree or disagree with this statement?

Question 17: The complaints capturers do not capture details correctly. To what extent do you personally agree or disagree with this statement?
Question 18: Follow-ups are not being done on complaints. To what extent do you personally agree or disagree with this statement?

Question 19: Water Demand Management does not comply with the consumer service charter. To what extent do you personally agree or disagree with this statement?

Question 20: Household owners do not understand the water bill. To what extent do you personally agree or disagree with this statement?

Question 21: Service is acceptable. To what extent do you personally agree or disagree with this statement?

Question 22: Inadequate reporting processes in place to address complaints. To what extent do you personally agree or disagree with this statement?
Question 23: Meter readers record estimations, instead of physical reading meters. To what extent do you personally agree or disagree with this statement?
Question 24: Work instructions are not being followed. To what extent do you personally agree or disagree with this statement?

Question 25: No cleaning is done after repairs. To what extent do you personally agree or disagree with this statement?

### 4.10 CONCLUSION

In this chapter, the 'service delivery' survey design and methodology was addressed under the following functional headings:
$>$ Survey environment.
$>$ The aim of the chapter.
$>$ Choice of sampling method.
> Target population.
> Data collection.
> Measurement scales.
$>$ Demand for a qualitative research strategy.
> Survey sensitivity.
$>$ Survey design.
$>$ Survey questions.

In Chapter 5, results from the survey will be analysed in detail and conclusions drawn.

## CHAPTER 5: DATA ANALYSIS AND INTERPRETATION OF RESULTS

### 5.1 INTRODUCTION

Data analysis is "the process of bringing order, structure and meaning to the mass of collected data" (de Vos 2002, 339). This chapter discusses the statistical analysis of the questionnaire compiled by N Madliwa, for the purpose of obtaining Magister Technologiae: Quality in the Faculty of Engineering at the Cape Peninsula University of Technology. The aim of this study is to determine the impact of service delivery of Water Demand Management on low income communities. In this chapter the data obtained from the completed questionnaires will be presented and analysed.

In most social research, the analysis entails three major steps, in the following order:
$>$ Cleaning and organising the information that was collected, which is called the data preparation step,
$>$ Describing the information that was collected (Descriptive Statistics); and
$>$ Testing the assumptions made through hypothesis and modeling (Inferential Statistics).

The responses to the questionnaire, developed by the researcher for the purpose of obtaining information regarding the impact of service delivery on user satisfaction, the current standard of service delivery, and the establishment of mechanisms to improve service delivery, have been analysed, using SAS software.

### 5.2 METHOD OF ANALYSIS

### 5.2.1 VALIDATION OF SURVEY RESULTS

A descriptive analysis of the survey results returned by the research questionnaire respondents is reflected below. The responses to the questions obtained through the questionnaires are indicated in table format for ease of reference. Data validation is the process of ensuring that a programme operates on clean, correct and useful data. The construct validation, however, can only be taken to the point where the questionnaire measures what it is supposed to measure. Construct validation should be addressed in the planning phases of the survey, and when the questionnaire is developed. This questionnaire is supposed to measure whether poor service delivery from Water Demand Management to low income areas, such as Ward 3 at Litha Park Khayelitsha, results in dissatisfaction and discontent.

### 5.2.2 DATA FORMAT

The data was received in questionnaires, which were coded and captured in a database developed on Microsoft Access, for this purpose. These questionnaires were captured twice and then the two datasets were compared to minimise capturing mistakes. When the database had been developed, use was made of rules, with respect to the questionnaire, that set boundaries for the different variables (questions). For instance, if the Lickert scale is used, as follows:
$>$ 'Strongly disagree' is coded as 1
$>$ 'Disagree' is coded as 2
$>$ 'Undecided' is coded as 3
$>$ 'Agree' is coded as 4
$>$ 'Strongly agree' is coded as 5 .
A boundary is set on Microsoft Access as less than 6. This means that if the number 6 , or more than 6 , is captured an error will show until a number less than 6 is captured. It was then imported into SAS-format through the SAS ACCESS module. This information, which had been double checked for correctness, was then analysed by the custodian of this document.

### 5.2.3 PRELIMINARY ANALYSIS

The reliability of the statements in the questionnaire posed to the respondents in Khayelitsha was measured by using the Cronbach Alpha test. (See paragraph 5.3.1). A Uni-variate descriptive analysis is performed on all the original variables; displaying frequencies, percentages, cumulative frequencies, cumulative percentages, means, standard deviations, range, median, mode etc. These descriptive statistics are discussed in paragraphs 5.3.2 and 5.3.3. (See also computer printouts in Annexure B \& C).

### 5.2.4 INFERENTIAL STATISTICS USED

Inferential statistics that were used, include:
$>$ Cronbach Alpha test. Cronbach's Alpha is an index of reliability associated with the variation accounted for by the true score of the "underlying construct". Construct is the hypothetical variables that are being measured (Cooper \& Schindler, 2001:216-217). Another way to put it would be that Cronbach's Alpha measures how well a set of items (or variables) measures a single uni-dimensional latent construct. When data has a multidimensional structure, Cronbach's Alpha will usually be low.
$>$ Chi-square tests for nominal data. The Chi-square (two-sample) tests are probably the most widely used nonparametric test of significance that is useful for tests involving nominal data, but it can be used for higher scales as well, like cases where persons, events or objects are grouped in two or more nominal categories such as 'yes-no' or cases A, B, C or D. The technique is used to test for significant differences between the observed distribution of data among categories, and the expected distribution based on the null hypothesis. It has to be calculated with actual counts rather than percentages (Cooper \& Schindler, 2001:499).
> The SAS software computes a P-value (Probability value) that measures statistical significance when comparing variables with each other, determining relationships between variables, or determining association between variables. Results will be regarded as significant if the p-values are smaller than 0.05 , because this value presents an acceptable level on a $95 \%$ confidence interval
( $\mathrm{p} \leq 0.05$ ). The p -value is the probability of observing a sample value as extreme as, or more extreme than, the value actually observed, given that the null hypothesis is true. This area represents the probability of a Type 1 error that must be assumed if the null hypothesis is rejected (Cooper \& Schindler, 2001:509).
> The p -value is compared to the significance level $(\alpha)$ and on this basis the null hypothesis is either rejected or not rejected. If the p value is less than the significance level, the null hypothesis is rejected (if $p$ value $<\alpha$, reject null). If the p value is greater than, or equal to, the significance level, the null hypothesis is not rejected (if p value $\geq \alpha$, do not reject null). Thus with $\alpha=0.05$, if the p value is less than 0.05 , the null hypothesis will be rejected. The p value is determined by using the standard normal distribution. The small $p$ value represents the risk of rejecting the null hypothesis.
$>$ A difference has statistical significance if there is good reason to believe the difference does not represent random sampling fluctuations only. Results will be regarded as significant if the p -values are smaller than 0.05 , because this value is used as the cut-off point in most behavioural science research.

### 5.2.5 ASSISTANCE TO RESEARCHER

The conclusions made by the researcher, were validated by the statistical report. Help was given to interpret the outcome of the data. The final report, written by the researcher, was to be validated and checked by the statistician to exclude any misleading interpretations. All inferential statistics are discussed in paragraphs 5.3.4.

### 5.2.6 SAMPLE

The target population is residents who live and own houses in Ward 3 at Litha Park. A random sample of 80 was drawn in the target population and the sample realisation was 80 .

### 5.3 ANALYSIS

In total, 80 residents of Ward 3 at Litha Park, Khayelitsha completed the questionnaire. Descriptive statistics will be given for each variable, and only the respondents who completed the entire questionnaire will be utilised in the inferential statistics.

### 5.3.1 RELIABILITY TESTING

Reliability tests (Cronbach's Alpha Coefficient) will be conducted on the questions/statements (which is the measuring instrument in this case) posed to the respondents of Ward 3 at Litha Park, Khayelitsha. As statement D21 is stated positively as "Service is acceptable" whilst the rest of the statements are stated negatively, it might suggest that some reversal issues are present. Thus, if the respondents agreed with the statement "Service is acceptable" they will disagree with the statement "Service is unacceptable". It is thus necessary to recode D21 by creating a new variable D 21 n that is the reverse of the original variable and the transformation for D21is as follows:
$\mathrm{D} 21 \mathrm{n}=1$ if D21 $=5$;
D21n $=2$ if D21 $=4$;
D21n $=3$ if D21 $=3$;
D21n $=4$ if D21 $=2$;
D21n $=5$ if D21 $=1$;
When interpreting the result, note should be taken that D 21 n is the reverse of the original statement D21.

The Cronbach's Alpha Coefficient for this measuring instrument is less than 0.70 (the acceptable level according to Nunnally, 1978: 245), and thus this measuring instrument is not consistent.

The results of the Cronbach Alpha tests for the all the raw variables are shown in table 5.1 and in Annexure A. It shows the correlation between the respective item and the total sum score (without the respective item) and the internal consistency of the scale (coefficient alpha) if the respective item were to be deleted.

By deleting the items (statements) one by one each time, with the statement with the highest Cronbach Alpha value, the Alpha value will increase. In the right-most column of table 5.1, it shows that the reliability of the scale could be higher if some of these statements were to be deleted.

For instance, if statement D20 is deleted from this measuring scale then the Cronbach Alpha Coefficient will increase to 0.5564 . This does not help much as it is still smaller than 0.70 . If we carry on, and each time delete the item (statement) with the highest Cronbach alpha value the best overall Cronbach Alpha Coefficient achieved will be 0.6700 after deleting statements A1, A4, A5, B9, B10, B11, B12, B13, C14, C18, D21n, D23, D24 and D25. This shows that the measuring instrument may not be reliable, or exist out of multi constructs (measure more than one aspect). When the Cronbach Alpha Coefficient is calculated for the items in the different sections, the Cronbach Alpha for each section is very small.

TABLE 5.1: Cronbach's Alpha Coefficient for all the items forming the measuring instrument in this survey for the total sample

| Statements (Test all statements without current one's input) | Variable nr. | Correlation with total | Cronbach's <br> Alpha <br> Coefficient |
| :---: | :---: | :---: | :---: |
| Section A |  |  |  |
| 1. Plumbers do not fix water leaks. | A1 | 0.3083 | 0.4907 |
| 2. Broken cisterns are not replaced and attended to by plumber. | A2 | 0.1824 | 0.5118 |
| 3. The water flow pressure from the taps is low. | A3 | 0.1311 | 0.5207 |
| 4. The water meters are always faulty. | A4 | 0.1265 | 0.5209 |
| 5. Plumbing material being used is of poor quality. | A5 | 0.0059 | 0.5386 |
| Section B |  |  |  |
| 6. Site awareness facilitators are rude and not helpful. | B6 | 0.1817 | 0.5122 |
| 7. Site awareness facilitators give wrong information. | B7 | 0.3223 | 0.4869 |
| 8. No education on water wastage is provided. | B8 | 0.1549 | 0.5165 |


| Statements (Test all statements without current one's input) | Variable nr. | Correlation with total | Cronbach's <br> Alpha <br> Coefficient |
| :---: | :---: | :---: | :---: |
| 9. Job cards are not signed by the owner. | B9 | -0.1034 | 0.5541 |
| 10. Lack of site inspection prior to water meter installation. | B10 | 0.2212 | 0.5072 |
| 11. No follow-up inspections after completion of repairs. | B11 | 0.0743 | 0.5272 |
| 12. The daily water allocation of 350 litres is not sufficient. | B12 | 0.1726 | 0.5136 |
| 13. The water coming out of taps is not always fit for human consumption (smelling). | B13 | 0.1480 | 0.5177 |
| Section C |  |  |  |
| 14. Plumbers go to the wrong households when attending to complaints. | C14 | 0.2748 | 0.4962 |
| 15. Call centre staff does not answer complaint calls on time. | C15 | 0.3143 | 0.4953 |
| 16. Plumbers do not attend to complaints within the specified time. | C16 | 0.2928 | 0.5046 |
| 17. The complaints capturers do not capture details correctly. | C17 | 0.4350 | 0.4875 |
| 18. Follow-ups are not being done on complaints. | C18 | 0.1829 | 0.5144 |
| Section D |  |  |  |
| 19. Water demand management does not comply with the consumer service charter. | D19 | 0.0968 | 0.5246 |
| 20. Household owners do not understand the water bill. | D20 | -0.1094 | 0.5564 |
| 21. Service is acceptable. | D21 | 0.0761 | 0.5290 |
| 22. Inadequate reporting processes in place to address complaints. | D22 | 0.2354 | 0.5072 |
| 23. Meter readers record estimations, instead of physically reading meters. | D23 | -0.0376 | 0.5413 |
| 24. Work instructions are not being followed. | D24 | 0.2603 | 0.5014 |
| 25. No cleaning is done after repairs. | D25 | -0.0191 | 0.5418 |
| Cronbach's Coefficient Alpha for standardized variables |  |  | 0.5506 |
| Cronbach's Coefficient Alpha for raw variables |  |  | 0.5276 |

After performing an exploratory factor analysis it was determined that this measuring instrument consists of at least 6 constructs which grouped the items (statements) into six factors. Exploratory factor analysis is used to investigate the factor structure underlying the set of original observed (25) variables that represent the measurement items regarding the impact of poor service delivery from water demand management, to low income areas, to determine the latent variables which it describes. Per definition, factor analysis identifies the nature and number of latent factors responsible for co-variation in data analysis. Results, including the rotated factor pattern and communality estimates of the exploratory factor analysis are shown in Table 5.3. The SAS printout can be found in Annexure F. The communality refers to the percent of variance in an observed variable that is accounted for by the retained factors (Hatcher, L 1994: 13).

TABLE 5.2: Original variables and corresponding factor loadings from the rotated factor pattern.

| Factor Pattern |  |  |  |  |  | Final <br> Communality <br> Estimates | Questionnaire <br> Statements |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 |  |  |
| 78 | 12 | 18 | -17 | 7 | -9 | 0.6345 | C15 |
| 74 | 13 | 25 | 6 | 19 | -4 | 0.5896 | C17 |
| 63 | 1 | 14 | 12 | 5 | -2 | 0.4474 | C16 |
| $22$ | 64 | -24 | 7 | -1 | 5 | 0.5028 | D25 |
| 27 | 62 | -7 | -10 | 9 | -2 | 0.4857 | D24 |
| 0 | 53 | -27 | 8 | -27 | -7 | 0.3798 | D23 |
| 1 | 46 | 11 | 25 | 15 | 5 | 0.3031 | C14 |
| 15 | -12 | 80 | 7 | 19 | 23 | 0.6853 | B7 |
| 23 | 1 | 69 | -9 | 10 | -28 | 0.5820 | B6 |
| 15 | -30 | 59 | -12 | 17 | 19 | 0.4519 | B8 |
| -2 | 9 | -9 | 61 | -6 | 7 | 0.3975 | B11 |
| 13 | 23 | -3 | 60 | 1 | -13 | 0.4457 | B10 |
| 42 | -9 | -3 | -46 | 29 | 6 | 0.4091 | A3 |
| 37 | -15 | 11 | -13 | 67 | -35 | 0.5964 | A2 |
| 7 | 22 | 20 | 10 | 54 | -10 | 0.3887 | A1 |
| -4 | -9 | 13 | 0 | 51 | 17 | 0.3249 | B13 |
| - | -11 | 13 | -13 | 7 | 70 | 0.5578 | A4 |
| - | 19 | -6 | 34 | -26 | 60 | 0.5268 | A5 |


| Factor Pattern |  |  |  |  | Final <br> Communality <br> Cstimates | Questionnaire <br> Statements |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ |  |  |
| 20 |  |  |  |  |  |  |  |

- Take note that all the loadings are multiplied by a 100 and rounded to the nearest integer.

Measurements on the impact of poor service delivery are subjected to an exploratory factor analysis, using squared multiple correlations (SMC) as prior communality estimates. The principal factor method was used to extract the factors, and this was followed by an oblique rotation. A Scree test, as well as an eigenvalue of more than 1 , suggested six meaningful factors, so only these factors were retained for rotation.

In interpreting the rotated factor pattern, an item was said to load on a given factor if the factor loading was 0.40 or greater for that factor, and was less than 0.40 for the other. Using these criteria, three items were found to load on the first factor, which was subsequently labelled the "Complaints" factor. Four items loaded on the second factor, which was labelled the "Work Ethics" factor. Three items loaded on the third factor, which was labelled the "Site awareness" factor. Three items loaded on the fourth factor, which was labelled the "Site inspections" factor. Three items loaded on the fifth factor, which was labelled the "Customer issues" factor. Two items loaded on the sixth factor, which was labelled the "Material quality" factor. Thus, the measuring instrument that measures the impact of poor service delivery consists of six constructs, and that is why, if used as one measuring instrument, it proofs to be unreliable.

The Cronbach alpha coefficient was calculated for these six factors and they are still not reliable. Thus, each statement will be analysed and compared, with respect to the biographical variables. No summaries of variables will be tested.

### 5.3.2 DESCRIPTIVE STATISTICS

Table 5.3 shows the descriptive statistics for all the categorical variables with the frequencies in each category and the percentage out of the total number of
questionnaires. The number of years residing in the house, the number of people residing in the house or who stay at home during the day will be grouped in sensible groupings to be used later in comparisons. However, the average number of years and people will also be given in table 5.4. Take note that the descriptive statistics are based on the total sample. These descriptive statistics are also shown in Annexures B \& C.

TABLE 5. 3: Descriptive statistics for all the variables

| Variables | Categories | Frequency | Percentage out of total |
| :---: | :---: | :---: | :---: |
| Biographic variables |  |  |  |
| 1. Type of dwelling. | House | 30 | 37.5\% |
|  | Shack | 25 | 31.2\% |
|  | Wendy-house | 25 | 31.2\% |
| 2. Gender. | Male | 39 | 48.8\% |
|  | Female | 41 | 51.2\% |
| 3. How many people are residing in your household? | 1-4 years | 26 | 32.5\% |
|  | 5-8 years | 26 | 32.5\% |
|  | >8 years | 28 | 35.0\% |
| 4. Number of people at home during the day. | 0-1 | 26 | 32.5\% |
|  | 2-5 | 35 | 43.8\% |
|  | $>5$ | 19 | 23.8\% |
| 5. How long have you been living in your household? | 1-4 years | 28 | 35.0\% |
|  | 5-9 years | 26 | 32.5\% |
|  | >8 years | 26 | 32.5\% |
| Section A |  |  |  |
| 1. Plumbers do not fix water leaks. | Strongly disagree | 9 | 11.2\% |
|  | Disagree | 21 | 26.2\% |
|  | Undecided | 2 | 2.5\% |
|  | Agree | 27 | 33.8\% |
|  | Strongly agree | 21 | 26.2\% |
| 2. Broken cisterns are not replaced and attended to by plumber. | Strongly disagree | 10 | 12.5\% |
|  | Disagree | 18 | 22.5\% |
|  | Undecided | 3 | 3.8\% |



| Variables | Categories | Frequency | Percentage out of total |
| :---: | :---: | :---: | :---: |
|  | Strongly agree | 26 | 32.5\% |
| 9. Job cards are not signed by the owner. | Strongly disagree | 7 | 8.8\% |
|  | Disagree | 19 | 23.8\% |
|  | Undecided | 3 | 3.8\% |
|  | Agree | 32 | 40.0\% |
|  | Strongly agree | 17 | 21.2\% |
|  | Unknown | 2 | 2.5\% |
| 10. Lack of site inspection prior to water meter installation. | Strongly disagree | 6 | 7.5\% |
|  | Disagree | 11 | 13.8\% |
|  | Undecided | 5 | 6.2\% |
|  | Agree | 39 | 48.8\% |
|  | Strongly agree | 18 | 22.5\% |
|  | Unknown | 1 | 1.2\% |
| 11. No follow-up inspections after completion of repairs. | Strongly disagree | 1 | 1.2\% |
|  | Disagree | 13 | 16.2\% |
|  | Undecided | 5 | 6.2\% |
|  | Agree | 33 | 41.2\% |
|  | Strongly agree | 28 | 35.0\% |
| 12. The daily water allocation of 350 litres is not sufficient | Strongly disagree | 10 | 12.5\% |
|  | Disagree | 12 | 15.0\% |
|  | Undecided | 4 | 5.0\% |
|  | Agree | 20 | 25.0\% |
|  | Strongly agree | 34 | 42.5\% |
| 13. The water coming out of taps is not always fit for human consumption (smelling). | Strongly disagree | 7 | 8.8\% |
|  | Disagree | 25 | 31.2\% |
|  | Undecided | 5 | 6.2\% |
|  | Agree | 23 | 28.8\% |
|  | Strongly agree | 20 | 25.0\% |
| Section C |  |  |  |
| 14. Plumbers go to the wrong households when attending to complaints. | Strongly disagree | 7 | 8.8\% |
|  | Disagree | 25 | 31.2\% |
|  | Undecided | 1 | 1.2\% |
|  | Agree | 25 | 31.2\% |


| Variables | Categories | Frequency | Percentage out of total |
| :---: | :---: | :---: | :---: |
|  | Strongly agree | 22 | 27.5\% |
| 15. Call centre staff does not answer complaint calls on time. | Strongly disagree | 2 | 2.5\% |
|  | Disagree | 7 | 8.8\% |
|  | Undecided | 4 | 6.0\% |
|  | Agree | 20 | 25.0\% |
|  | Strongly agree | 47 | 58.8\% |
| 16. Plumbers do not attend to complaints within the specified time. | Strongly disagree | 1 | 1.2\% |
|  | Disagree | 4 | 5.0\% |
|  | Undecided | 3 | 3.8\% |
|  | Agree | 20 | 25.0\% |
|  | Strongly agree | 52 | 65.0\% |
| 17. The complaints capturers do not capture details correctly. | Strongly disagree | 3 | 3.8\% |
|  | Disagree | 4 | 5.0\% |
|  | Undecided | 5 | 6.2\% |
|  | Agree | 20 | 25.0\% |
|  | Strongly agree | 48 | 60.0\% |
| 18. Follow-ups are not being done on complaints. | Strongly disagree | 0 | 0.0\% |
|  | Disagree | 5 | 10.0\% |
|  | Undecided | 2 | 2.5\% |
|  | Agree | 19 | 23.8\% |
|  | Strongly agree | 51 | 63.8\% |
| Section D |  |  |  |
| 19. Water demand management does not comply with the consumer service charter. | Strongly disagree | 7 | 8.8\% |
|  | Disagree | 23 | 28.8\% |
|  | Undecided | 10 | 12.5\% |
|  | Agree | 33 | 41.2\% |
|  | Strongly agree | 7 | 8.8\% |
| 20. Household owners do not understand the water bill. | Strongly disagree | 12 | 15.0\% |
|  | Disagree | 18 | 22.5\% |
|  | Undecided | 10 | 12.5\% |
|  | Agree | 30 | 37.5\% |
|  | Strongly agree | 9 | 11.2\% |
|  | Unknown | 1 | 1.2 \% |


| Variables | Categories | Frequency | Percentage out of total |
| :---: | :---: | :---: | :---: |
| 21. Service is acceptable. | Strongly disagree | 36 | 45.0\% |
|  | Disagree | 23 | 28.8\% |
|  | Undecided | 5 | 6.2\% |
|  | Agree | 7 | 8.8\% |
|  | Strongly agree | 8 | 10.0\% |
|  | Unknown | 1 | 1.2\% |
| 22. Inadequate reporting processes in place to address complaints. | Strongly disagree | 4 | 5.0\% |
|  | Disagree | 6 | 7.5\% |
|  | Undecided | 16 | 20.0\% |
|  | Agree | 35 | 43.8\% |
|  | Strongly agree | 16 | 20.0\% |
|  | Unknown | 3 | 3.8\% |
| 23. Meter readers record estimations, instead of physically reading meters. | Strongly disagree | 2 | 2.5\% |
|  | Disagree | 12 | 15.0\% |
|  | Undecided | 6 | 7.5\% |
|  | Agree | 31 | 38.8\% |
|  | Strongly agree | 29 | 36.2\% |
| 24. Work instructions are not being followed. | Strongly disagree | 2 | 2.5\% |
|  | Disagree | 17 | 21.2\% |
|  | Undecided | 8 | 10.0\% |
|  | Agree | 28 | 35.0\% |
|  | Strongly agree | 25 | 31.2\% |
| 25. No cleaning is done after repairs. | Strongly disagree | 3 | 3.8\% |
|  | Disagree | 18 | 22.5\% |
|  | Undecided | 1 | 1.2\% |
|  | Agree | 26 | 32.5\% |
|  | Strongly agree | 32 | 40.0\% |

TABLE 5. 4: Descriptive statistics - Mean, Median, Standard Deviation and Range

| Variable | N | Mean | Standard <br> Deviation | Median | Range |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Biographic continuous variables |  |  |  |  |  |
| 3. How many people are residing in your household? | 80 | 7.14 | 4.1605 | 6.00 | 16.0 |
| 4. Number of people at home during the day. | 80 | 3.51 | 3.1981 | 3.00 | 13.0 |
| 5. How long have you been living in your household? | 80 | 7.31 | 4.1813 | 6.00 | 15.0 |
| Section A |  |  |  |  |  |
| 1. Plumbers do not fix water leaks. | 80 | 3.38 | 1.4086 | 4.00 | 4.0 |
| 2. Broken cisterns are not replaced and attended to by plumber. | 80 | 3.50 | 1.4841 | 4.00 | 4.0 |
| 3. The water flow pressure from the taps is low. | 80 | 3.29 | 1.4249 | 4.00 | 4.0 |
| 4. The water meters are always faulty. | 80 | 3.39 | 1.3168 | 4.00 | 4.0 |
| 5. Plumbing material being used is of poor quality. | 79 | 3.87 | 1.2646 | 4.00 | 4.0 |
| Section B |  |  |  |  |  |
| 6. Site awareness facilitators are rude and not helpful. | 80 | 3.10 | 1.3274 | 4.00 | 4.0 |
| 7. Site awareness facilitators give wrong information. | 80 | 3.30 | 1.4355 | 4.00 | 4.0 |
| 8. No education on water wastage is provided. | 80 | 3.41 | 1.4293 | 4.00 | 4.0 |
| 9. Job cards are not signed by the owner. | 78 | 3.42 | 1.3144 | 4.00 | 4.0 |
| 10. Lack of site inspection prior to water meter installation. | 79 | 3.66 | 1.1971 | 4.00 | 4.0 |
| 11. No follow-up inspections after completion of repairs. | 80 | 3.92 | 1.0882 | 4.00 | 4.0 |
| 12. The daily water allocation of 350 litres is not sufficient. | 80 | 3.70 | 1.4617 | 4.00 | 4.0 |
| 13. The water coming out of taps is not always fit for human consumption | 80 | 3.30 | 1.3724 | 4.00 | 4.0 |


| Variable | N | Mean | Standard <br> Deviation | Median | Range |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (smelling). |  |  |  |  |  |
| Section C |  |  |  |  |  |
| 14. Plumbers go to the wrong households when attending to complaints. | 80 | 3.38 | 1.3996 | 4.00 | 4.0 |
| 15. Call centre staff does not answer complaint calls on time. | 80 | 4.29 | 1.0696 | 5.00 | 4.0 |
| 16. Plumbers do not attend to complaints within the specified time. | 80 | 4.48 | 0.8855 | 5.00 | 4.0 |
| 17. The complaints capturers do not capture details correctly. | 80 | 4.32 | 1.0527 | 5.00 | 4.0 |
| 18. Follow-ups are not being done on complaints. | 80 | 4.41 | 0.9506 | 5.00 | 3.0 |
| Section D |  |  |  |  |  |
| 19. Water demand management does not comply with the consumer service charter. | 80 | 3.12 | 1.1840 | 3.50 | 4.0 |
| 20. Household owners do not understand the water bill. | 79 | 3.08 | 1.2986 | 3.00 | 4.0 |
| 21. Service is acceptable. | 79 | 2.09 | 1.3415 | 2.00 | 4.0 |
| 22. Inadequate reporting processes in place to address complaints. | 77 | 3.69 | 1.0546 | 4.00 | 4.0 |
| 23. Meter readers record estimations, instead of physically reading meters. | 80 | 3.91 | 1.1273 | 4.00 | 4.0 |
| 24. Work instructions are not being followed. | 80 | 3.71 | 1.1927 | 4.00 | 4.0 |
| 25. No cleaning is done after repairs. | 40 | 3.82 | 1.2806 | 4.00 | 4.0 |

### 5.3.3 UNI-VARIATE GRAPHS

This paragraph will illustrate the distribution of the responses for each statement in the survey.


FIGURE 5. 1: Distribution of respondents
The respondents were equally distributed among the three types of dwellings.


FIGURE 5. 2: Gender distribution

There was also an equal gender distribution.

The following graph shows the distribution of the responses in respect of section A in the questionnaire. Section A consists of questions regarding the poor service delivery. As can be seen in figure 5.3, more than half of the respondents agree to strongly agree with these negative statements.


FIGURE 5. 3: Responses to section A

The statements were sorted from the statement where the respondents 'mostly agree with' to the statement that they 'least agree with'. The respondents mostly agree with the following statements:
> Plumbing material being used is of poor quality. (70.9\% agree, to strongly agree).
> Broken cisterns are not replaced and attended to by a plumber. (61.2\% agree, to strongly agree).
$>$ The water meters are always faulty. ( $56.2 \%$ agree, to strongly agree).
$>$ Plumbers do not fix water leaks. ( $60.0 \%$ agree, to strongly agree).
$>$ The water flow pressure from the taps is low. ( $52.5 \%$ agree, to strongly agree).

The following graph shows the distribution of the responses in respect of section $B$ in the questionnaire. Section B also consists of questions regarding the poor service delivery. As can be seen in figure 5.4 , more than half of the respondents agree, to strongly agree with these negative statements.


FIGURE 5. 4: Responses to Section B

The statements were sorted from the statement where the respondents 'mostly agree with' to the statement that they 'least agree with.' The respondents agreed more with the following statements:
$>$ No follow-up inspections after completion of repairs. ( $76.27 \%$ agree, to strongly agree).
$>$ The daily water allocation of 350 litres is not sufficient. ( $67.5 \%$ agree, to strongly agree).
$>$ Lack of site inspection prior to water meter installation. ( $72.2 \%$ agree, to strongly agree).
$>$ No education on water wastage is provided. ( $53.8 \%$ agree, to strongly agree).
$>$ Job card is not signed by the owner. ( $62.8 \%$ agree, to strongly agree).
$>$ The water coming out of taps is not always fit for human consumption. ( $53.8 \%$ agree, to strongly agree).
$>$ Site awareness facilitators give wrong information. (52.5\% agree, to strongly agree).
> Site awareness facilitators are rude and not helpful. (55.0\% agree, to strongly agree).

The following graph shows the distribution of the responses in respect of section C in the questionnaire. Section $C$ also consists of questions regarding the poor service delivery, especially in respect of the complaints. As can be seen in figure 5.5 that more than a half of the respondents agree, to strongly agree with these negative statements.


FIGURE 5. 5: Responses on Section C

The statements were sorted from the statement where the respondents 'mostly agree' with to the statement that they 'least agree with.' The respondents agreed more with the following statements:
$>$ Plumbers do not tend to complaints within the specified time. ( $90.0 \%$ agree, to strongly agree).
$>$ Follow-ups are not being made on complaints. ( $87.5 \%$ agree, to strongly agree).
> The complaints capturers do not capture details correctly. ( $85.0 \%$ agree, to strongly agree).
$>$ Call centre staff does not answer complaint calls on time. ( $83.8 \%$ agree, to strongly agree).
$>$ Plumbers go to the wrong households when attending to complaints. (58.8\% agree, to strongly agree).

The following graph shows the distribution of the responses in respect of section D in the questionnaire. Section D also consists of questions regarding the poor service delivery. Statement D21 was the only statement that was stated positively; and to continue in a standard formatting of the statements this statement is reversed coded as follows:
$\mathrm{A} 5 \mathrm{n}=1$ if $\mathrm{A} 5=5$;
$\mathrm{A} 5 \mathrm{n}=2$ if $\mathrm{A} 5=4 ;$
$\mathrm{A} 5 \mathrm{n}=3$ if $\mathrm{A} 5=3$;
$A 5 n=4$ if $A 5=2$;
$\mathrm{A} 5 \mathrm{n}=5$ if A5 $=1$;
This means that statement D21 will now read "The service is unacceptable".


FIGURE 5. 6: Responses to Section D

The statements were sorted from the statement where the respondents 'mostly agree with' to the statement that they 'least agree with'. The respondents mostly agreed with the following statements:
> Meter readers record estimations, instead of physical readings. (75.0\% agree, to strongly agree).
$>$ The service is unacceptable. ( $74.7 \%$ agree, to strongly agree).
$>$ No cleaning is done after repairs. ( $72.5 \%$ agree, to strongly agree).
$>$ Work instructions are not being followed. ( $66.2 \%$ agree, to strongly agree).
> Inadequate reporting processes in place to address complaints. ( $66.2 \%$ agree, to strongly agree).
$>$ Water demand management does not comply with the consumer service charter. ( $50.0 \%$ agree, to strongly agree).
> Household owners do not understand the water bill. (49.4\% agree, to strongly agree).

### 5.3.4 INFERENTIAL STATISTICS

The following inferential statistics will be performed on the survey data:
> For all the statements in the survey a comparison will be made between the proportions of respondents who agree, to strongly agree and the proportions of respondents who disagree, to strongly disagree with the statements. This is done to serve as statistical evidence when the results are discussed. Note that the group of respondents who were undecided is taken out, as there were a small number of respondents who were undecided and it will make all the comparisons statistically significantly different, as the undecided group has the smallest proportion of respondents.
$>$ A comparison will be made between the types of dwellings, the gender of the house owner, the number of people who reside in the house, the number of people alone at home during the day, and the number of years the respondent was living in the house.

Comparative statistics for the abovementioned comparisons that were used, are discussed in paragraphs 5.3.4.1 and 5.3.4.2; and the computer printouts are shown in Annexures D and E.

The hypotheses being tested for the comparisons under point 1 , will be as follows:
$>\mathrm{H}_{0}=$ The proportion of respondents who agree, to strongly agree is not different from the proportion of respondents who disagree, to strongly disagree.
$>\mathrm{H}_{1}=$ The proportion of respondents who agree, to strongly agree is different from the proportion of respondents who disagree, to strongly disagree.

The hypotheses being tested for the comparisons under point 2 will be as follows:
$>\mathrm{H}_{0}=$ The three independent groups (House, Shack, and Wendy house owners) do not differ with respect to their perceptions in this survey.
$>\mathrm{H}_{1}=$ The three independent groups (House, Shack, and Wendy house owners) do differ with respect to their perceptions in this survey.

### 5.3.4.1 Comparisons with regard to the difference in proportions who agreed and who disagreed

Chi-square tests were performed to determine whether the proportion of respondents who agreed is equal to the proportion of respondents who disagreed for each question (statement).

The results for only the statistically significant differences are shown in table 5.5 and in Annexure D.

TABLE 5. 5: Statistically significant Chi-square test for equal proportions

| Question / Statement | Sample <br> Size | Chi-Square | DF | P-Value |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Section A |  |  |  |  |  |
| 1. Plumbers do not fix water leaks. | 78 | 4.1538 | 1 | $0.0415^{*}$ |  |
| 2.Broken cisterns are not replaced and <br> attended to by plumber. | 77 | 5.7273 | 1 | $0.0167^{*}$ |  |
| 5.Plumbing material being used is of poor <br> quality. <br> Section B <br> 9. Job cards are not signed by the owner. |  |  |  |  |  |


| Question / Statement | Sample <br> Size | Chi-Square | DF | P-Value |
| :---: | :---: | :---: | :---: | :---: |
| 10. Lack of site inspection prior to water meter installation. | 74 | 21.6216 | 1 | $<0.0001 * * *$ |
| 11. No follow-up inspections after completion of repairs. | 75 | 29.4533 | 1 | $<0.0001 * * *$ |
| 12. The daily water allocation of 350 litres is not sufficient. | 76 | 13.4737 | 1 | 0.0002*** |
| Section C |  |  |  |  |
| 15. Call centre staff does not answer complaint calls on time. | 76 | 44.2632 | 1 | $<0.0001 * * *$ |
| 16. Plumbers do not attend to complaints within the specified time. | 77 | 58.2987 | 1 | $<0.0001^{* * *}$ |
| 17. The complaints capturers do not capture details correctly. | 75 | 49.6133 | 1 | $<0.0001 * * *$ |
| 18. Follow-ups are not being done on complaints. | 78 | 49.2821 | 1 | $<0.0001 * * *$ |
| Section D |  |  |  |  |
| 21. Service is acceptable. | 74 | 26.1622 | 1 | <0.0001*** |
| 22. Inadequate reporting processes in place to address complaints. | 61 | 27.5574 | 1 | $<0.0001^{* * *}$ |
| 23. Meter readers record estimations, instead of physically reading meters. | 74 | 28.5946 | 1 | $<0.0001 * * *$ |
| 24. Work instructions are not being followed. | 72 | 16.0556 | 1 | <0.0001*** |
| 25. No cleaning is done after repairs. | 79 | 17.3291 | 1 | $<0.0001^{* * *}$ |

* Statistically significant at level 0.05
** Statistically significant at level 0.01
*** Statistically significant at level 0.001

As Table 5.5 shows; there were statistically significant differences for the following statements:
> Plumbing material being used is of poor quality. ( $75.7 \%$ agree, to strongly agree and $24.3 \%$ disagree, to strongly disagree).
$>$ Broken cisterns are not replaced and attended to by a plumber. ( $63.6 \%$ agree, to strongly agree and $36.4 \%$ disagree, to strongly disagree).
$>$ Plumbers do not fix water leaks. (61.5\% agree, to strongly agree and $38.5 \%$ disagree, to strongly disagree).
$>$ No follow-up inspections after completion of repairs. (81.3\% agree, to strongly agree and $18.7 \%$ disagree, to strongly disagree).
$>$ The daily water allocation of 350 litres is not sufficient. ( $71.0 \%$ agree, to strongly agree and $29.0 \%$ disagree, to strongly disagree).
$>$ Lack of site inspection prior to water meter installation. ( $77.0 \%$ agree, to strongly agree and $23.0 \%$ disagree, to strongly disagree).
$>$ Job card is not signed by the owner. ( $65.3 \%$ agree, to strongly agree and $34.7 \%$ disagree, to strongly disagree).
$>$ Plumbers do not tend to complaints within the specified time. (93.5\% agree, to strongly agree and $6.5 \%$ disagree, to strongly disagree).
> Follow-ups are not being done on complaints. (89.7\% agree, to strongly agree and $10.3 \%$ disagree, to strongly disagree).
> The complaints capturers do not capture details correctly. ( $90.7 \%$ agree, to strongly agree and $9.3 \%$ disagree, to strongly disagree).
> Call centre staff does not answer complaint calls on time. ( $88.2 \%$ agree, to strongly agree and $11.8 \%$ disagree, to strongly disagree).
> Meter readers record estimations, instead of physical readings. (81.1\% agree, to strongly agree and $18.9 \%$ disagree, to strongly disagree).
$>$ The service is unacceptable. ( $79.7 \%$ agree, to strongly agree and $20.3 \%$ disagree, to strongly disagree).
> No cleaning is done after repairs. ( $73.4 \%$ agree, to strongly agree and $26.6 \%$ disagree, to strongly disagree).
> Work instructions are not being followed. ( $73.6 \%$ agree, to strongly agree and $26.4 \%$ disagree, to strongly disagree).
> Inadequate reporting processes in place to address complaints. (83.6\% agree, to strongly agree and $16.4 \%$ disagree, to strongly disagree).

### 5.3.4.2 Comparisons with regard to whether the two independent groups differed in respect of their perceptions

A comparison is made between the three groups of respondents (who owned a house, a Wendy house, or a shack) to see whether there is a difference in their
perceptions with respect to the statements that were made. The three groups are compared in respect of each statement by using Chi-square. In this case the undecided group was also left out of the comparison as it was a small number of respondents who were undecided.

All the statistically significant results will be discussed in this paragraph, but all the results significant or not significant can be found in Annexure E.

Firstly, there were no statistically significant differences between the respondents whose type of dwelling is a house or a Wendy house or a shack.

TABLE 5. 6: Contingency table for Gender vs A4

| Frequency / <br> Row percentage | Disagree <br> -Strongly <br> Disagree | Agree- <br> Strongly <br> agree | TOTAL |
| :--- | :--- | :--- | :--- |
| Male | 19 | 16 | 35 |
| $54.7 \%$ | $45.7 \%$ | $47.3 \%$ |  |
| Female | 10 | 29 | 39 |
|  | $25.6 \%$ | $74.4 \%$ | $52.7 \%$ |
| TOTAL | 29 | 45 | 74 |
|  | $39.2 \%$ | $60.8 \%$ |  |

TABLE 5.7: Chi-Square test for Gender vs A4

| Question / Statement | Sample <br> Size | Chi-Square | DF | P-Value |
| :--- | :--- | :--- | :--- | :--- |
| 4. The water meters are always faulty. | 74 | 6.3510 | 1 | $0.0117^{*}$ |



FIGURE 5. 7: The water meters are always faulty

Statistically significant more females than males agree, to strongly agree to the statement 'The water meters are always faulty".

TABLE 5. 8: Contingency table for Gender vs B7

| Frequency / <br> Row percentage | Disagree <br> -Strongly <br> Disagree | Agree- <br> Strongly <br> agree | TOTAL |
| :--- | :--- | :--- | :--- |
| Male | 15 | 14 | 29 |
| Female | $51.7 \%$ | $48.3 \%$ | $42.6 \%$ |
| TOTAL | 11 | 28 | 39 |
|  | $28.2 \%$ | $71.8 \%$ | 52.74 |
|  | 26 | 42 | 68 |

TABLE 5.9: Chi-Square test for Gender vs B7

| Question / Statement | Sample <br> Size | Chi-Square | DF | P-Value |
| :--- | :--- | :--- | :--- | :--- |
| 7. Site awareness facilitators give wrong | 68 | 3.8975 | 1 | $0.0484^{*}$ |
| $\quad$information. | 68 |  |  |  |



FIGURE 5. 8: Site awareness facilitators give wrong information

There were statistically significantly more females than males that agree, to strongly agree with the statement 'Site awareness facilitators give wrong information.

TABLE 5. 10: Contingency table for Gender vs B8

| Frequency / <br> Row percentage | Disagree <br> -Strongly <br> Disagree | Agree- <br> Strongly <br> agree | TOTAL |
| :--- | :--- | :--- | :--- |
| Male | 18 | 17 | 35 |
| $51.4 \%$ | $48.6 \%$ | $50.0 \%$ |  |
| Female | 9 | 26 | 35 |
|  | $25.7 \%$ | $74.3 \%$ | $50.0 \%$ |
| TOTAL | 27 | 43 | 70 |
|  | $38.6 \%$ | $61.4 \%$ |  |

TABLE 5. 11: Chi-Square test for Gender vs B8

| Question / Statement | Sample <br> Size | Chi-Square | DF | P-Value |
| :--- | :--- | :--- | :--- | :--- |
| 8. No education on water wastage is provided. | 70 | 4.8837 | 1 | $0.0271^{*}$ |



FIGURE 5. 9: No education on water wastage is provided

There were statistically significantly more females than males that agree, to strongly agree with respect to the statement 'No education on water wastage is provided'.

The 'Number of people who reside in the home' was grouped in, as near as possible, equal groups of ' 1 to 6 people' and 'More than 6 people'. These two groups are then compared with respect to their responses for each statement. The following statistically significant results were obtained.

TABLE 5. 12: Contingency table for Number of people residing vs B12

| Frequency / <br> Row percentage | Disagree <br> -Strongly <br> Disagree | Agree- <br> Strongly <br> agree | TOTAL |
| :--- | :--- | :--- | :--- |
| 1-6 people | 16 | 23 | 39 |
| $41.0 \%$ | $59.0 \%$ | $51.3 \%$ |  |
| > 6 people | 6 | 31 | 37 |
|  | $16.2 \%$ | $83.8 \%$ | $48.7 \%$ |
| TOTAL | 22 | 54 | 76 |
|  | $29.0 \%$ | $71.0 \%$ |  |

TABLE 5. 13: Chi-Square test for Number of people residing vs B12

| Question / Statement | Sample <br> Size | Chi-Square | DF | P-Value |
| :--- | :--- | :--- | :--- | :--- |
| 12. $\quad$The daily water allocation of 350 litres is <br> not sufficient.. | 76 | 5.6819 | 1 | $0.0171^{*}$ |



FIGURE 5. 10: The daily water allocation of 350 litres is not sufficient

Statistically significantly more respondents from the group 'More than 6 people' agree, to strongly agree that the daily water allocation of 350 liters is not sufficient.

TABLE 5. 14: Contingency table for Number of people residing vs C18

| Frequency / <br> Row percentage | Disagree <br> -Strongly <br> Disagree | Agree- <br> Strongly <br> agree | TOTAL |
| :--- | :--- | :--- | :--- |
| 1-6 people | 1 | 40 | 41 |
|  | $2.44 \%$ | $97.6 \%$ | $52.6 \%$ |
| > 6 people | 7 | 30 | 37 |
|  | $18.9 \%$ | $81.1 \%$ | $47.4 \%$ |
| TOTAL | 8 | 70 | 78 |
|  | $10.3 \%$ | $89.7 \%$ |  |

TABLE 5. 15: Chi-Square test for Number of people residing vs C18

| Question / Statement | Sample <br> Size | Chi-Square | DF | P-Value |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 18. | Follow-up are not being done on <br> complaints. | 78 | 5.7385 | 1 | $0.0166^{*}$ |



FIGURE 5. 11: Follow-ups are not being done on complaints

Statistically significantly more respondents from the ' $1-6$ people residing' group agree, to strongly agree.

The 'Number of people who stay at home during the day' was grouped in, as near as possible, equal groups of ' $0-2$ people' and 'More than 2 people'. These two groups are then compared with respect to their responses for each statement. The following statistically significant results were obtained.

TABLE 5. 16: Contingency table for Number of people at home vs B8

| Frequency / <br> Row percentage | Disagree <br> -Strongly <br> Disagree | Agree- <br> Strongly <br> agree | TOTAL |
| :--- | :--- | :--- | :--- |
| 0-2 people | 5 | 22 | 27 |
| $\mathbf{1 8 . 5 \%}$ | $81.5 \%$ | $43.6 \%$ |  |
| 2 people | 16 | 19 | 35 |
|  | $45.7 \%$ | $54.3 \%$ | $56.4 \%$ |
| TOTAL | 21 | 41 | 62 |
|  | $33.9 \%$ | $66.1 \%$ |  |

TABLE 5. 17: Chi-Square test for Number of people at home vs B8

| Question / Statement | Sample <br> Size | Chi-Square | DF | P-Value |
| :--- | :--- | :--- | :--- | :--- |
| $8 . \quad$ No education on water wastage is provided. | 62 | 5.0330 | 1 | $0.0249^{*}$ |



FIGURE 5. 12: No education on water wastage is provided

Statistically significantly more respondents from the ' $0-2$ people staying at home' agree, to strongly agree that no education on wastage is provided.

TABLE 5. 18: Contingency table for Number of people at home vs C14

| Frequency / <br> Row percentage | Disagree <br> -Strongly <br> Disagree | Agree- <br> Strongly <br> agree | TOTAL |
| :--- | :--- | :--- | :--- |
| 0-2 people | 17 | 12 | 29 |
| $58.6 \%$ | $41.4 \%$ | $42.0 \%$ |  |
| > 2 people | 12 | 28 | 40 |
| $33.0 \%$ | $70.0 \%$ | $58.0 \%$ |  |
| TOTAL | 29 | 40 | 69 |
|  | $42.0 \%$ | $58.0 \%$ |  |

TABLE 5. 19: Chi-Square test for Number of people at home vs C14

| Question / Statement | Sample <br> Size | Chi-Square | DF | P-Value |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $14 . \quad$Plumbers go to the wrong households when <br> attending complaints. | 69 | 5.6521 | 1 | $0.0174^{*}$ |



FIGURE 5. 13: Plumbers go to wrong households when attending complaints

Statistically significantly more respondents from the ' $>2$ people staying at home' agree to strongly agree that plumbers go to wrong households when attending complaints.

TABLE 5. 20: Contingency table for Number people at home vs D19

| Frequency / <br> Row percentage | Disagree <br> -Strongly <br> Disagree | Agree- <br> Strongly <br> agree | TOTAL |
| :--- | :--- | :--- | :--- |
| 0-2 people | 19 | 8 | 27 |
| $70.4 \%$ | $29.6 \%$ | $42.9 \%$ |  |
| >2 people | 8 | 28 | 36 |
| $22.2 \%$ | $77.8 \%$ | $57.1 \%$ |  |
| TOTAL | 27 | 36 |  |
| $52.9 \%$ | $57.1 \%$ | 63 |  |

TABLE 5. 21: Chi-Square test for Number of people at home vs D19

| Question / Statement | Sample <br> Size | Chi-Square | DF | P-Value |
| :---: | :--- | :--- | :--- | :--- |
| $19 . \quad$Water demand management does not <br> comply with the consumer service charter. | 63 | 14.6049 | 1 | $0.0001^{* * *}$ |



FIGURE 5. 14: Water demand management does not comply

Statistically significantly more respondents from the ' $>2$ people staying at home' agree to strongly agree that the water demand management does not comply with the consumer service charter.

The 'Number of years living in your household' variable was grouped in, as near as possible, equal groups of '1-6 years' and ' $>6$ years'. These two groups are then compared with respect to their responses for each statement. The following statistically significant results were obtained.

TABLE 5. 22: Contingency table for Number of years residing at home vs D24

| Frequency / <br> Row percentage | Disagree <br> -Strongly <br> Disagree | Agree- <br> Strongly <br> agree | TOTAL |
| :--- | :--- | :--- | :--- |
| 1-6 years | 5 | 32 | 37 |
| $13.5 \%$ | $86.5 \%$ | $51.4 \%$ |  |
| > 6 years | 14 | 21 | 35 |
|  | $40.0 \%$ | $60.0 \%$ | $49.6 \%$ |
| TOTAL | 19 | 53 | 72 |
|  | $26.4 \%$ | $73.6 \%$ |  |

TABLE 5. 23: Chi-Square test for Number of years residing at home vs D24

| Question / Statement | Sample <br> Size | Chi-Square | DF | P-Value |
| :--- | :--- | :--- | :--- | :--- |
| $24 . \quad$ Work instructions are not being followed. | 2 | 6.4956 | 1 | $0.0108^{*}$ |



FIGURE 5. 15: Work instructions are not being followed

Statistically significantly more respondents from the '1-6 years' agree, to strongly agree that the work instructions are not being followed.

### 5.4 DISCUSSIONS AND CONCLUSIONS

From the results obtained through this survey the following analogies can be drawn:
$>$ The plumbing material being used is of poor quality;
$>$ Broken cisterns are not replaced and attended to by a plumber;
> Plumbers do not fix water leaks;
$>$ No follow-up inspections after completion of repairs;
$>$ The daily water allocation of 350 litres is not sufficient;
$>$ There is a lack of site inspection prior to water meter installation;
$>$ Job cards are not signed by the owners;
> Plumbers do not attend to complaints within the specified time;
$>$ Follow-ups are not being done on complaints;
> The complaints capturers do not capture details correctly;
$>$ Call centre staff does not answer complaint calls on time;
$>$ The meter readers record estimations, instead of physical readings;
$>$ The service is not acceptable;
$>$ No cleaning is done after repairs;
$>$ The work instructions are not being followed; and
> There are inadequate reporting processes in place to address complaints.

When determining which groups contributed the most to these outcomes, females agreed more to the following statements than the males:
$>$ The water meters are always faulty.
$>$ Site awareness facilitators give wrong information.
$>$ No education on water wastage is provided.

When determining which groups contributed the most to these outcomes, the "number of people residing $=>6$ " agreed more with the statement "The daily allocation of 350 liters of water is not sufficient" and the "number of people residing $=1-6$ " agreed more with the statement "Follow-ups are not being done on complaints".

The group of respondents where more than 2 people stayed at home during the day agreed more to the statements:
$>$ Plumbers go to the wrong households when attending complaints
$>$ Water demand management does not comply with the consumer service charter.

The group of respondents where 2 or less people stayed at home during the day agreed more with the statement "No education on water wastage is provided".

Those that were living in a residence for 1-6 years agreed more with the statement "Work instructions are not being followed".

## CHAPTER 6 : CONCLUSION AND RECOMMENDATIONS

### 6.1 INTRODUCTION

In this chapter, the research is summarised and final conclusions drawn. The research problem is revisited to ascertain whether it has been solved as a result of the research. The key research objectives, research question and investigative questions will be re-visited to determine whether the research contained within the ambit of the dissertation produced not only feasible, but also viable, answers to the posed research questions.

The research design and methodology, as well as the data collection design and methodology will be evaluated to determine if the research was executed in terms of the stated design and methodology. The key research objectives will be restated together with key findings culminating as a result of the research. The chapter will conclude with recommendations to Water Demand Management on mechanisms and approaches to improve the impact of service delivery in low income areas

### 6.2 THE RESEARCH THUS FAR

The research thus far has elaborated on the importance of measuring the impact of service delivery in low income communities for municipal departments to facilitate improvement and promote customer satisfaction. Services have been defined as, "... deeds, processes and performances." The research has investigated the current perceptions of residents regarding service delivery from Water Demand Management to low income communities. The responses were analysed and specific conclusions drawn. These will be evaluated against the current performance of Water Demand Management in achieving service delivery targets and satisfying its customers.

The extent of the research was provided in Chapter 1: Scope of the Research. In Chapter 2, a holistic overview on the research environment was provided. In Chapter 3, a literature review was conducted on the issue of service delivery and
its aspects in promoting customer satisfaction with specific focus leveled at the following:
> Definition of service;
$>$ Voice of the customer;
> Customer needs and satisfaction;
> Customer Expectations;
> SERVQUAL;
$>$ Focus groups;
> Quality Function Deployment; and
> KANO model.

In Chapter 4, the research design and methodology was elaborated upon to culminate in the data analysis and interpretation of results in Chapter 5. In this final Chapter 6, the research will be concluded and final analogies will be drawn.

### 6.3 THE RESEARCH PROBLEM RE-VISITED

The research problem which has been researched within the ambit of this dissertation reads as follows: "Poor service delivery from Water Demand Management to low income areas result in dissatisfaction and discontent".

Service delivery from Water Demand Management to low income communities is unsatisfactory. The research returned that $79.7 \%$ of the residents agree, to strongly agree that the service is unacceptable and $20.3 \%$ disagree, to strongly disagree.

### 6.4 THE RESEARCH QUESTION RE-VISITED

The research question which has been researched within the ambit of this dissertation reads as follows: "Which mechanisms can be employed by Water Demand Management to improve service delivery to low income areas?"

The mechanisms that can be employed by Water Demand Management to improve service delivery to low income communities are contained within the recommendations (refer to paragraph 6.7).

### 6.5 THE INVESTIGATIVE QUESTIONS RE-VISITED

The investigative questions to be researched in support of the research question read as follows:
$>$ Is there a need for improvement on the current status of service delivery of Water Demand Management?
$>$ What are the current perceptions of the residents in low income areas regarding service delivery of Water Demand Management?
> Is the daily water allocation adequate for the households in the low income areas?
> Is there a need for response times of Water Demand Management to complaints to be improved?
> To what extent are the users dissatisfied with the service delivery from Water Demand Management?

Is there a need for improvement on the current status of service delivery of Water Demand Management?
> The current status of service delivery of Water Demand Management to low income communities needs to be improved.
> Most residents strongly agree that the service of Water Demand Management is unacceptable and dissatisfactory.

Findings from the survey indicate that the respondents mostly agree with the following statements:
> Plumbing material being used is of poor quality. (70.9\% agree, to strongly agree).
> Broken cisterns are not replaced and attended to by plumbers. (61.2\% agree, to strongly agree).
$>$ The water meters are always faulty. ( $56.2 \%$ agree, to strongly agree). Statistically significant more females than males agree, to strongly agree with this statement.
> Plumbers do not fix water leaks. ( $60.0 \%$ agree, to strongly agree).
$>$ The water flow pressure from the taps is low. ( $52.5 \%$ agree, to strongly agree).
> Meter readers record estimations, instead of physical readings. (75.0\% agree, to strongly agree).
$>$ No cleaning is done after repairs. ( $72.5 \%$ agree, to strongly agree).
$>$ Work instructions are not being followed. ( $66.2 \%$ agree, to strongly agree).
> Inadequate reporting processes in place to address complaints. ( $66.2 \%$ agree, to strongly agree).
> Water Demand Management does not comply with the consumer service charter. (50.0\% agree, to strongly agree).
> Household owners do not understand the water bill. (49.4\% agree, to strongly agree).

What are the current perceptions of the residents in low income areas regarding service delivery of Water Demand Management?
> No follow-up inspections after completion of repairs. ( $76.27 \%$ agree, to strongly agree).
$>$ Lack of site inspection prior to water meter installation. ( $72.2 \%$ agree, to strongly agree).
$>$ No education on water wastage is provided. ( $53.8 \%$ agree, to strongly agree).
$>$ Job card is not signed by the owner. ( $62.8 \%$ agree, to strongly agree).
$>$ The water coming out of taps is not always fit for human consumption.(53.8\% of respondents agree, to strongly agree).
$>$ Site awareness facilitators give wrong information. (52.5\% of respondents agreed to this statement).
> Site awareness facilitators are rude and not helpful. ( $55.0 \%$ agree, to strongly agree).

Is the daily water allocation adequate for the households in the low income areas?
> The daily water allocation of 350 liters is not sufficient. ( $67.5 \%$ agree, to strongly agree).
> Statistically significantly more respondents from the group 'more than 6 people' in a household agree, to strongly agree that the daily water allocation of 350 liters is not sufficient.

## Is there a need for response times of Water Demand Management to complaints to be improved?

Based on the survey findings, the researcher can conclude that, there is a need for improvement in the response times to complaints in Water Demand Management.

Findings from the survey indicate that the respondents mostly agree with the following statements:
$>$ Plumbers do not attend to complaints within the specified time. (90.0\% agree, to strongly agree).
$>$ The complaints capturers do not capture details correctly. ( $85.0 \%$ agree, to strongly agree).
> Call centre staff does not answer complaint calls on time. (83.8\% agree, to strongly agree).
> Plumbers go to the wrong households when attending to complaints. (58.8\% agree, to strongly agree).

## To what extent are the users dissatisfied with the service delivery from Water Demand Management?

> Based on the survey findings, the service of Water Demand Management is unacceptable. ( $74.7 \%$ of respondents agree, to strongly agree).

### 6.6 THE KEY RESEARCH OBJECTIVES RE-VISITED

The primary research objectives of this dissertation read as follows:
$>$ To identify the impact of service delivery on user satisfaction.
> To continually improve the service delivery of Water Demand Management.
$>$ To measure the level of customer satisfaction with regard to service delivery.
$>$ To review the current standard of service delivery and performance of Water Demand Management, and establish mechanisms for improving service delivery.

In assessing the perceptions of residents in low income communities, regarding the importance of excellent service delivery, it is imperative for the municipal departments to understand and identify the impact that service delivery has on
promoting user satisfaction. Residents in the communities know what their rights are. The department is also aware of the requirements to satisfy their customers, however, the high rate of negative responses from the survey indicates that Water Demand Management do not fulfill them. This reflects the current status of service delivery of Water Demand Management to low income communities.

Management needs to establish and implement new strategies to continually improve service delivery. Failure to improve service delivery can result in serious customer dissatisfaction. Customers want to feel valued by their service provider by receiving excellent service delivery at all times. The customer service charter needs to be adhered to. All the requirements to satisfy customers are clearly stipulated in the charter. Effectiveness and efficiency of the charter should be visible. The employees responsible for the provision of service delivery should understand the charter and comply with it.

Customer surveys and frequent focus group meetings are some of the crucial mechanisms that must be established to improve service delivery. These mechanisms assist in reviewing the current standard of service delivery and performance of the organisation. They further assist in measuring the level of customer satisfaction. The department can use the responses from the surveys to improve the business and its service delivery. Surveys assist organisations in understanding their customer requirements and to know what their needs are. Suggestions can be formulated, using the information obtained from focus group meetings. This information can be transformed into new approaches and strategies for improving service delivery.

### 6.7 RECOMMENDATIONS

The following recommendations are made to mitigate the research problem and provide answers to the research question.
> Plumbing material that is used should be bought only from approved suppliers.
> An approved supplier list should be established and controlled.
> All plumbing material need to be SABS approved. This will ensure that the material used for plumbing purposes is durable.
> Water meters should be SANAS approved.
$>$ Tests must be performed on the water meters.
> Leak detection devices must be given to plumbers who attend to different customer complaints in the communities. This device can be used to detect leaks that are not visible.
> Quality control programmes need to be put in place to ensure that follow-up inspections are conducted after the completion of repairs in the households.
> Water Demand Management needs to replace the 15 mm diameter water supply pipes with 25 mm .pipes. This will improve the water pressure.
> Top management need to review the daily water allocation of 350 liters in households which have more than 6 people. The survey findings indicated that statistically significantly more respondents from the group 'more than 6 people' agree, to strongly agree that the daily water allocation of 350 liters is not sufficient. ( $67.5 \%$ agree, to strongly agree).
> Training needs to be arranged for all the site facilitators that educate people in the communities about prevention of water wastage. Training records must be controlled and maintained.
> Support department i.e. Scientific Services need to conduct regular water tests. Effective sampling methods must be implemented to ensure that the water coming out of people's taps is always fit for human consumption.
> Corrective and preventive actions need to be established to promote effective follow-up and closing of customer complaints.
> To avoid plumbers going to wrong households when attending to complaints, map books must be ordered by administration personnel and given to each plumber. Each plumber must sign for the receipt of the map book.
> Skills transfer should be performed on all the data capturers to decrease errors when capturing complaints.
> All employees responsible for service delivery need to be trained on all the processes and work instructions in place.

### 6.8 CONCLUSION

It makes business sense to pay attention to the ultimate customer requirements and needs. It is critical for an organisation to develop an excellent customer loyalty base that is consistent at all costs. Organisations world-wide recognise the importance of meeting customer needs in order to succeed in the competitive market place. The level of understanding customer requirements between management and employees responsible for service delivery is an essential requirement. This helps in improving service delivery and performance of the organisation. Overall understanding of the importance of service delivery to customers should be clear to both management and employees.

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## ANNEXURES

Annexure A:
Cronbach Alpha Coefficients for all the items in the Questionnaire


| Cronbach Coefficient Alpha |  |
| :--- | ---: |
| Variables | Alpha |
| ffffffffffffffffffffffffffff |  |
| Raw | 0.670054 |
| Standardized | 0.681661 |

Cronbach Coefficient Alpha with Deleted Variable Raw Variables Standardized Variables

| Deleted | Correlation |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Variable | With Total | Alpha | Correlation <br> with Total | Alpha | Label |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |  |
| A2 | 0.280122 | 0.661494 | 0.279530 | 0.671019 | A2 |
| A3 | 0.273695 | 0.661343 | 0.272811 | 0.672372 | A3 |
| B6 | 0.444761 | 0.619892 | 0.422491 | 0.641336 | B6 |
| B7 | 0.401237 | 0.630218 | 0.375679 | 0.651248 | B7 |
| B8 | 0.410326 | 0.627884 | 0.365792 | 0.653318 | B8 |
| C15 | 0.464049 | 0.621531 | 0.524585 | 0.619054 | C15 |
| C16 | 0.358714 | 0.646954 | 0.389101 | 0.648426 | C16 |
| C17 | 0.274892 | 0.656979 | 0.311592 | 0.664514 | C17 |
| D22 | 0.260145 | 0.659585 | 0.265690 | 0.673801 | D22 |

Annexure B:
Descriptive statistics: Frequency tables

| Type_ <br> dwelling | Frequency | Percent | Cumulative <br> Frequency | Cumulative <br> Percent |
| :--- | :---: | :---: | :---: | :---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| House | 30 | 37.50 | 30 | 37.50 |
| Shack | 25 | 31.25 | 55 | 68.75 |
| Wendy-house | 25 | 31.25 | 80 | 100.00 |

Chi-Square Test
for Equal Proportions
$f f f f f f f f f f f f f f f f f f f f f$
Chi-Square 0.6250
DF 2
Pr > ChiSq 0.7316
Sample Size = 80

|  |  | Cumulative | Cumulative |  |
| :--- | :---: | :---: | :---: | :---: |
| Gender | Frequency | Percent | Frequency | Percent |
| $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Male | 39 | 48.75 | 39 | 48.75 |
| Female | 41 | 51.25 | 80 | 100.00 |

Chi-Square Test
$\begin{array}{lr}\text { for Equal Proportions } \\ \text { ffffffffffffffffffffff } \\ \text { Chi-Square } & 0.0500 \\ \text { DF } & 1 \\ \text { Pr } \quad \text { ChiSq } & 0.8231 \\ \text { Sample Size }=80\end{array}$

| Number_residing |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Ffequency | Percent | Cumulative <br> Frequency | Cumulative <br> Percent |  |
| 1 | 4 | 5.00 | 4 | 5.00 |
| 2 | 8 | 10.00 | 12 | 15.00 |
| 3 | 5 | 6.25 | 17 | 21.25 |
| 4 | 9 | 11.25 | 26 | 32.50 |
| 5 | 4 | 5.00 | 30 | 37.50 |
| 6 | 11 | 13.75 | 41 | 51.25 |
| 7 | 5 | 6.25 | 46 | 57.50 |
| 8 | 6 | 7.50 | 52 | 65.00 |
| 9 | 7 | 8.75 | 59 | 73.75 |
| 10 | 4 | 5.00 | 63 | 78.75 |
| 11 | 4 | 5.00 | 67 | 83.75 |
| 12 | 2 | 2.50 | 69 | 86.25 |
| 13 | 4 | 5.00 | 73 | 91.25 |
| 14 | 3 | 3.75 | 76 | 95.00 |
| 16 | 2 | 2.50 | 78 | 97.50 |
| 17 | 2 | 2.50 | 80 | 100.00 |

Chi-Square Test
for Equal Proportions ffffffffffffffffffffff Chi-Square 20.4000
DF 15

Pr > ChiSq 0.1571
Sample Size = 80

| Number_home | Frequency | Percent | Cumulative <br> Frequency | Cumulative <br> Percent |
| :---: | :---: | :---: | :---: | :---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| 0 | 10 | 12.50 | 10 | 12.50 |
| 1 | 16 | 20.00 | 26 | 32.50 |
| 2 | 13 | 16.25 | 39 | 48.75 |
| 3 | 9 | 11.25 | 48 | 60.00 |
| 4 | 10 | 12.50 | 58 | 72.50 |
| 5 | 3 | 3.75 | 61 | 76.25 |
| 6 | 7 | 8.75 | 68 | 85.00 |
| 7 | 3 | 3.75 | 71 | 88.75 |
| 8 | 2 | 2.50 | 73 | 91.25 |




| B7 | Frequency | Percent | Cumulative <br> Frequency | Cumulative <br> Percent |
| :--- | :---: | :---: | :---: | :---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Strongly Disagree | 13 | 16.25 | 13 | 16.25 |
| Disagree | 13 | 16.25 | 26 | 32.50 |
| Undecided | 12 | 15.00 | 38 | 47.50 |
| Agree | 21 | 26.25 | 59 | 73.75 |
| Strongly Agree | 21 | 26.25 | 80 | 100.00 |

Chi-Square Test
for Equal Proportions $f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 5.2500
DF
Pr > ChiSq 0.2626
Sample Size = 80

|  | B8 | Frequency | Percent | Cumulative <br> Frequency |
| :--- | :---: | :---: | :---: | :---: | | Cumulative |
| :---: |
| Percent |

Chi-Square Test
for Equal Proportions $f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 11.8750 DF
11.8750

Pr > ChiSq 0.0183
Sample Size $=80$

|  |  |  | Cumulative | Cumulative |
| :--- | ---: | ---: | ---: | ---: |
| B9 | Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
|  | 0 | 2 | 2.50 | 2 |

Chi-Square Test
for Equal Proportions $f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 50.2000 DF 5 Pr > ChiSq <.0001

Sample Size $=80$

| B10 | Frequency | Percent | Cumulative Frequency | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| 0 | 1 | 1.25 | 1 | 1.25 |
| Strongly Disagree | 6 | 7.50 | 7 | 8.75 |
| Disagree | 11 | 13.75 | 18 | 22.50 |
| Undecided | 5 | 6.25 | 23 | 28.75 |
| Agree | 39 | 48.75 | 62 | 77.50 |
| Strongly Agree | 18 | 22.50 | 80 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 72.1000 |  |  |  |  |
| DF 5 |  |  |  |  |
| Pr > ChiSq <.0001 |  |  |  |  |
| Sample Size $=80$ |  |  |  |  |
|  |  | Cumulative |  | Cumulative |
| B11 | Frequency | Percent | Frequency | Percent |



|  |  |  | Cumulative | Cumulative |
| :--- | :---: | :---: | :---: | :---: |
| C14 | Frequency | Percent | Frequency | Percent |

Chi-Square Test

| for Equal Proportions |  |
| :--- | ---: |
| fffffffffffffffffffff |  |
| Chi-Square $r$ | 31.5000 |
| DF | 4 |
| Pr $>$ ChiSq | $<.0001$ |
| Sample Size $=80$ |  |


|  | C15 | Frequency | Percent | Cumulative <br> Frequency |
| :--- | :---: | :---: | :---: | :---: |
| Cumulative |  |  |  |  |
| Percent |  |  |  |  |



|  |  |  | Cumulative | Cumulative |
| :--- | :---: | :---: | :---: | :---: |
| C16 | Frequency | Percent | Frequency | Percent |

Chi-Square Test
for Equal Proportions $f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 115.6250 DF 4 Pr > ChiSq <.0001

Sample Size = 80

|  | C17 | Frequency | Percent | Cumulative <br> Frequency |
| :--- | :---: | :---: | :---: | :---: |
| Cfffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |

Chi-Square Test
for Equal Proportions $f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 92.1250 DF
Pr > ChiSq <.0001
Sample Size $=80$

|  | C18 | Frequency | Percent | Cumulative <br> Frequency |
| :--- | :---: | :---: | :---: | :---: |
| Cumulative |  |  |  |  |

Chi-Square Test

| for Equal Proportions |  |
| :--- | ---: |
| fffffffffffffffffffff |  |
| Chi-Square | 71.5000 |
| DF | 3 |
| Pr $>$ ChiSq | $<.0001$ |
| Sample Size $=80$ |  |


|  |  |  | Cumulative | Cumulative |
| :--- | :---: | :---: | :---: | :---: |

$$
\begin{aligned}
& \text { DF } \\
& \text { Pr }>\text { ChiSq } \\
& \quad<.0001 \\
& \text { Sample Size }=80
\end{aligned}
$$

| D20 | Frequency | Percent | Cumulative <br> Frequency | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| 0 | 1 | 1.25 | 1 | 1.25 |
| Strongly Disagree | 12 | 15.00 | 13 | 16.25 |
| Disagree | 18 | 22.50 | 31 | 38.75 |
| Undecided | 10 | 12.50 | 41 | 51.25 |
| Agree | 30 | 37.50 | 71 | 88.75 |
| Strongly Agree | 9 | 11.25 | 80 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| fffffffffffffffffffff |  |  |  |  |
| Chi-Square 36.2500 |  |  |  |  |
| DF 5 |  |  |  |  |
| Pr > ChiSq <.0001 |  |  |  |  |
| Sample Size $=80$ |  |  |  |  |


|  | D21 | Frequency | Percent | Cumulative |
| :--- | :---: | :---: | :---: | ---: |
| Frequency |  |  |  |  |$\quad$| Cumulative |
| :---: |
| Percent |

Chi-Square Test
for Equal Proportions $f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 67.3000 DF $\begin{array}{r}5 \\ \hline 0001\end{array}$ Pr > ChiSq <.000
Sample Size = 80

|  | D22 | Frequency | Percent | Cumulative <br> Frequency |
| :--- | :---: | :---: | :---: | :---: | | Cumulative |
| :---: |
| Percent |

Chi-Square Test
for Equal Proportions ffffffffffffffffffffff Chi-Square 54.8500 DF

5
Pr > ChiSq <.0001
Sample Size = 80

|  |  |  | Cumulative | Cumulative |
| :--- | :---: | :---: | :---: | :---: |
| D23 | Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Strongly Disagree | 2 | 2.50 | 2 | 2.50 |
| Disagree | 12 | 15.00 | 14 | 17.50 |
| Undecided | 6 | 7.50 | 20 | 25.00 |
| Agree | 31 | 38.75 | 51 | 63.75 |
| Strongly Agree | 29 | 36.25 | 80 | 100.00 |

Chi-Square Test
for Equal Proportions $f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 44.1250 DF

Pr > ChiSq <.0001
Sample Size = 80

|  |  |  | Cumulative <br> Frequency | Cumulative <br> Percent |
| :--- | :---: | :---: | :---: | :---: |
| frequency | Percent | Frfffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |
| Strongly Disagree | 2 | 2.50 | 2 | 2.50 |
| Disagree | 17 | 21.25 | 19 | 23.75 |
| Undecided | 8 | 10.00 | 27 | 33.75 |
| Agree | 28 | 35.00 | 55 | 68.75 |
| Strongly Agree | 25 | 31.25 | 80 | 100.00 |

Chi-Square Test
for Equal Proportions $f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 30.3750 DF 4

Pr > ChiSq <.0001
Sample Size = 80

|  |  |  | Cumulative | Cumulative |
| :--- | :---: | :---: | :---: | :---: |
| D25 | Frequency | Percent | Frequency | Percent |

Chi-Square Test
for Equal Proportions
$f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 47.1250 DF


Pr > ChiSq <.0001
Sample Size = 80

## Annexure C:

Descriptive statistics: Uni-variate with means \& standard deviations where appropriate

|  | Variable: | Number_residing (Number_residing) |  |
| :--- | :---: | :--- | ---: |
| N | 80 |  | Sum Weights |

Basic Statistical Measures

| Basic |  |  |  |
| :--- | ---: | :--- | ---: |
| Statistical Measures |  |  |  |
| Location | Variability |  |  |
| Mean | 7.137500 | Std Deviation | 4.16053 |
| Median | 6.000000 | Variance | 17.30997 |
| Mode | 6.000000 | Range | 16.00000 |
|  |  | Interquartile Range | 6.00000 |


| Quantiles | (Definition 5) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 17.0 |
| $99 \%$ | 17.0 |
| $95 \%$ | 15.0 |
| $90 \%$ | 13.0 |
| $75 \%$ Q3 | 10.0 |
| $50 \%$ Median | 6.0 |
| $25 \%$ Q1 | 4.0 |
| $10 \%$ | 2.0 |
| $5 \%$ | 1.5 |
| $1 \%$ | 1.0 |
| $0 \%$ Min | 1.0 |


|  | Variable: | Number_home | (Number_home) | 80 |
| :--- | ---: | ---: | ---: | ---: |
| N | 80 | Sum Weights | 281 |  |
| Mean | 3.5125 | Sum Observations | 10.2276899 |  |
| Std Deviation | 3.19807596 | Variance | 1.15882878 |  |
| Skewness | 1.24789384 | Kurtosis | 807.9875 |  |
| Uncorrected SS | 1795 | Corrected SS | 0.35755576 |  |


| Basic |  |  |  |
| :--- | ---: | :--- | ---: |
| Statistical Measures |  |  |  |
| Location | Variability |  |  |
| Mean | 3.512500 | Std Deviation | 3.19808 |
| Median | 3.000000 | Variance | 10.22769 |
| Mode | 1.000000 | Range | 13.00000 |
|  |  | Interquartile Range | 4.00000 |




|  | Variable: | A1 (A1) |  |
| :---: | :---: | :---: | :---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.375 | Sum Observations | 270 |
| Std Deviation | n 1.40860825 | Variance | 1.98417722 |
| Skewness | -0.3649328 | Kurtosis | -1.3412518 |
| Uncorrected SS | SS 1068 | Corrected SS | 156.75 |
| Coeff Variation | ion 41.7365409 | Std Error Mean | 0.15748719 |
| Location Basic Statistical Measures |  |  |  |
|  |  |  |  |
| Mean | 3.375000 Std D | viation | 1.40861 |
| Median | 4.000000 Varia |  | 1.98418 |
| Mode | 4.000000 Range |  | 4.00000 |
|  | Inter | quartile Range | 3.00000 |
| Quantiles (Definition 5) |  |  |  |
| Quantile Estimate |  |  |  |
| 100\% Max 5 |  |  |  |
| 99\% 5 |  |  |  |
| 95\% 5 |  |  |  |
| 90\% 5 |  |  |  |
| 75\% Q3 5 |  |  |  |
| 50\% Median 4 |  |  |  |
| 25\% Q1 2 |  |  |  |
| 10\% 1 |  |  |  |
| 5\% 1 |  |  |  |
| 1\% 1 |  |  |  |
| 0\% Min 1 |  |  |  |


|  | Variable: A2 (A2) |  |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.5 | Sum Observations | 280 |
| Std Deviation | 1.48409287 | Variance | 2.20253165 |
| Skewness | -0.4646981 | Kurtosis | -1.3437698 |
| Uncorrected SS | 1154 | Corrected SS | 174 |
| Coeff Variation | 42.4026534 | Std Error Mean | 0.16592663 |

Coeff Variation
42.4026534 Std Error Mean
0.16592663


|  | 5\% | 1 |  |
| :---: | :---: | :---: | :---: |
|  | 1\% | 1 |  |
|  | 0\% Min | 1 |  |
|  | Variable: A3 (A3) |  |  |
| N | 80 | Sum Weights | 80 |
| Mean | 3.2875 | Sum Observations | 263 |
| Std Deviation | 1.42485842 | Variance | 2.03022152 |
| Skewness | -0.1760882 | Kurtosis | -1.4473162 |
| Uncorrected SS | ) 1025 | Corrected SS | 160.3875 |
| Coeff Variation | n 43.341701 | Std Error Mean | 0.15930401 |
| Basic Statistical Measures |  |  |  |
| Location Variability |  |  |  |
| Mean 3.2 | Std Deviation |  | 1.42486 |
| Median 4.0 | 4.000000 Variance |  | 2.03022 |
| Mode 2.0 | 2.000000 Range |  | 4.00000 |
|  | Interquartile Range |  | 3.00000 |
|  | Quantiles (Definition 5) |  |  |
|  | Quantile | Estimate |  |
|  | 100\% Max | 5 |  |
|  | 99\% | 5 |  |
|  | 95\% | 5 |  |
|  | 90\% | 5 |  |
|  | 75\% Q3 | 5 |  |
|  | 50\% Median | 4 |  |
|  | 25\% Q1 | 2 |  |
|  | 10\% | 1 |  |
|  | 5\% | 1 |  |
|  | 1\% | 1 |  |
|  | 0\% Min | 1 |  |
|  | Variable: | A4 (A4) |  |
| N | 80 | Sum Weights | 80 |
| Mean | 3.3875 | Sum Observations | 271 |
| Std Deviation | 1.31682155 | Variance | 1.73401899 |
| Skewness | -0.2439345 | Kurtosis | -1.3447063 |
| Uncorrected SS | S 1055 | Corrected SS | 136.9875 |
| Coeff Variation | on 38.8729608 | Std Error Mean | 0.14722512 |




|  | Variable: | B6 (B6) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.1 | Sum Observations | 248 |
| Std Deviation | 1.32741302 | Variance | 1.76202532 |
| Skewness | -0.2877498 | Kurtosis | -1.3385967 |
| Uncorrected SS | 908 | Corrected SS | 139.2 |
| Coeff Variation | 42.8197747 | Std Error Mean | 0.14840929 |




Note: The mode displayed is the smallest of 2 modes with a count of 21.

| Quantiles | (Definition 5) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5 |
| $99 \%$ | 5 |
| $95 \%$ | 5 |
| $90 \%$ | 5 |
| $75 \%$ Q3 | 5 |
| $50 \%$ Median | 4 |
| $25 \%$ Q1 | 2 |
| $10 \%$ | 1 |
| $5 \%$ | 1 |
| $1 \%$ | 1 |
| $0 \%$ Min | 1 |


|  | Variable: B8 (B8) |  |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.4125 | Sum Observations | 273 |
| Std Deviation | 1.42929344 | Variance | 2.04287975 |
| Skewness | -0.3127218 | Kurtosis | -1.3372671 |
| Uncorrected SS | 1093 | Corrected SS | 161.3875 |
| Coeff Variation | 41.8840569 | Std Error Mean | 0.15979986 |


| Basic |  |  |  |
| :--- | :--- | :--- | :--- |
| Location |  |  |  |
| Lotical Measures |  |  |  |
| Mean | 3.412500 | Std Deviation |  |
| Median | 4.000000 | Variance | 1.42929 |
| Mode | 5.000000 | Range | 2.04288 |
|  |  | Interquartile Range | 4.00000 |
|  |  |  | 3.00000 |


| Quantiles | (Definition 5 ) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5 |
| $99 \%$ | 5 |
| $95 \%$ | 5 |
| $90 \%$ | 5 |
| $75 \%$ Q3 | 5 |
| $50 \%$ Median | 4 |
| $25 \%$ Q1 | 2 |
| $10 \%$ | 1 |
| $5 \%$ | 1 |
| $1 \%$ | 1 |
| $0 \%$ Min | 1 |


|  | Variable: | B9 (B9) |  |
| :---: | :---: | :---: | :---: |
| N | 78 | Sum Weights | 78 |
| Mean | 3.42307692 | Sum Observations | 267 |
| Std Deviation | n 1.3144475 | Variance | 1.72777223 |
| Skewness | -0.479865 | Kurtosis | -1.1076465 |
| Uncorrected | SS 1047 | Corrected SS | 133.038462 |
| Coeff Variation 38 | ion 38.3995899 | Std Error Mean | 0.14883187 |
| Location Basic Statistical Measures |  |  |  |
|  |  |  |  |
| Mean | 3.423077 Std D | viation | 1.31445 |
| Median | 4.000000 Varia |  | 1.72777 |
| Mode | 4.000000 Range |  | 4.00000 |
|  | Inter | uartile Range | 2.00000 |
|  | Quantiles (D | finition 5) |  |
|  | Quantile | Estimate |  |
|  | 100\% Max | 5 |  |
|  | 99\% | 5 |  |
|  | 95\% | 5 |  |
|  | 90\% | 5 |  |
|  | 75\% Q3 | 4 |  |
|  | 50\% Median | 4 |  |
|  | 25\% Q1 | 2 |  |
|  | 10\% | 2 |  |
|  | 5\% | 1 |  |
|  | 1\% | 1 |  |
|  | 0\% Min | 1 |  |


|  | Variable: | B10 (B10) |  |
| :--- | ---: | :--- | ---: |
| N | 79 | Sum Weights | 79 |
| Mean | 3.65822785 | Sum Observations | 289 |
| Std Deviation | 1.19706988 | Variance | 1.43297631 |
| Skewness | -0.9143681 | Kurtosis | -0.1347798 |
| Uncorrected SS | 1169 | Corrected SS | 111.772152 |

Basic Statistical Measures

| Basic Statistical Measures |  |  |  |  |
| :--- | ---: | :--- | :--- | :---: |
| Location |  |  | Variability |  |
| Mean | 3.658228 | Std Deviation | 1.19707 |  |
| Median | 4.000000 | Variance | 1.43298 |  |
| Mode | 4.000000 | Range | 4.00000 |  |
|  |  | Interquartile Range | 1.00000 |  |


| Quantiles | (Definition 5 ) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5 |
| $99 \%$ | 5 |
| $95 \%$ | 5 |
| $90 \%$ | 5 |
| $75 \%$ Q3 | 4 |
| $50 \%$ Median | 4 |
| $25 \%$ Q1 | 3 |
| $10 \%$ | 2 |
| $5 \%$ | 1 |
| $1 \%$ | 1 |
| $0 \%$ Min | 1 |


|  | Variable: | B11 (B11) |  |
| :---: | :---: | :---: | :---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.925 | Sum Observations | 314 |
| Std Deviatio | n 1.08819907 | Variance | 1.18417722 |
| Skewness | -0.8756902 | Kurtosis | -0.2660479 |
| Uncorrected | SS 1326 | Corrected SS | 93.55 |
| Coeff Variation | ion 27.7248171 | Std Error Mean | 0.12166435 |
| Location Basic Statistical Measures |  |  |  |
|  |  |  |  |
| Mean | 3.925000 Std D | eviation | 1.08820 |
| Median | 4.000000 Varia | nce | 1.18418 |
| Mode | 4.000000 Range |  | 4.00000 |
|  | Inter | quartile Range | 1.00000 |
|  | Quantiles (D | afinition 5) |  |
|  | Quantile | Estimate |  |
|  | 100\% Max | 5 |  |
|  | 99\% | 5 |  |
|  | 95\% | 5 |  |
|  | 90\% | 5 |  |
|  | 75\% Q3 | 5 |  |
|  | 50\% Median | 4 |  |
|  | 25\% Q1 | 4 |  |
|  | 10\% | 2 |  |
|  | 5\% | 2 |  |
|  | 1\% | 1 |  |
|  | 0\% Min | 1 |  |


|  | Variable: | B12 (B12) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.7 | Sum Observations | 296 |
| Std Deviation | 1.46174856 | Variance | 2.13670886 |
| Skewness | -0.7561896 | Kurtosis | -0.9339848 |
| Uncorrected SS | 1264 | Corrected SS | 168.8 |
| Coeff Variation | 39.5067179 | Std Error Mean | 0.16342846 |



|  | Variable: | B13 (B13) |  |
| :---: | :---: | :---: | :---: |
| $N$ | 80 | Sum Weights | 80 |
| Mean | 3.3 | Sum Observations | 264 |
| Std Deviation | n 1.37242279 | Variance | 1.8835443 |
| Skewness | -0.1711607 | Kurtosis | -1.4239773 |
| Uncorrected | SS 1020 | Corrected SS | 148.8 |
| Coeff Variation | ion 41.5885693 | Std Error Mean | 0.15344153 |
| Location Basic Statistical Measures |  |  |  |
|  |  |  |  |
| $\begin{array}{lll}\text { Location } \\ \text { Mean } & 3.300000 & \text { Std Deviation }\end{array}$ |  |  | 1.37242 |
| MedianMode | 4.000000 Varia | nce | 1.88354 |
|  | 2.000000 Range |  | 4.00000 |
|  | Inter | quartile Range | 2.50000 |
|  | Quantiles (D | finition 5) |  |
|  | Quantile | Estimate |  |
|  | 100\% Max | 5.0 |  |
|  | 99\% | 5.0 |  |
|  | 95\% | 5.0 |  |
|  | 90\% | 5.0 |  |
|  | 75\% Q3 | 4.5 |  |
|  | 50\% Median | 4.0 |  |
|  | 25\% Q1 | 2.0 |  |
|  | 10\% | 2.0 |  |
|  | 5\% | 1.0 |  |
|  | 1\% | 1.0 |  |
|  | 0\% Min | 1.0 |  |


|  | Variable: | C14 (C14) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.375 | Sum Observations | 270 |
| Std Deviation | 1.39959307 | Variance | 1.95886076 |
| Skewness | -0.276137 | Kurtosis | -1.4469799 |
| Uncorrected SS | 1066 | Corrected SS | 154.75 |
| Coeff Variation | 41.4694243 | Std Error Mean | 0.15647926 |


| Basic Statistical Measures |  |  |  |
| :--- | :--- | :--- | :--- |
| Variability |  |  |  |
| Location | Van |  |  |
| Mean | 3.375000 | Std Deviation | 1.39959 |
| Median | 4.000000 | Variance | 1.95886 |
| Mode | 2.000000 | Range | 4.00000 |
|  |  | Interquartile Range | 3.00000 |

Note: The mode displayed is the smallest of 2 modes with a count of 25 .

| Quantiles | (Definition 5 ) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5 |
| $99 \%$ | 5 |
| $95 \%$ | 5 |
| $90 \%$ | 5 |
| $75 \%$ Q3 | 5 |
| $50 \%$ Median | 4 |
| $25 \%$ Q1 | 2 |
| $10 \%$ | 2 |
| $5 \%$ | 1 |
| $1 \%$ | 1 |
| $0 \%$ Min | 1 |



|  | Variable: | C16 (C16) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 4.475 | Sum Observations | 358 |
| Std Deviation | 0.88553781 | Variance | 0.78417722 |
| Skewness | -1.9977064 | Kurtosis | 3.88036542 |
| Uncorrected SS | 1664 | Corrected SS | 61.95 |

19.7885544 Std Error Mean
0.09900614



|  | Variable: | C18 (C18) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 4.4125 | Sum Observations | 353 |
| Std Deviation | 0.95059941 | Variance | 0.90363924 |
| Skewness | -1.6467647 | Kurtosis | 1.65902771 |
| Uncorrected SS | 1629 | Corrected SS | 71.3875 |
| Coeff Variation | 21.5433294 | Std Error Mean | 0.10628025 |


| Basic Statistical Measures |  |  |  |
| :--- | ---: | :--- | :---: |
| Location |  |  |  |
| Variability |  |  |  |
| Mean | 4.412500 | Std Deviation | 0.95060 |
| Median | 5.000000 | Variance | 0.90364 |
| Mode | 5.000000 | Range | 3.00000 |
|  |  | Interquartile Range | 1.00000 |


| Quantiles | (Definition 5) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5.0 |
| $99 \%$ | 5.0 |
| $95 \%$ | 5.0 |
| $90 \%$ | 5.0 |
| $75 \%$ Q3 | 5.0 |
| $50 \%$ Median | 5.0 |
| $25 \%$ Q1 | 4.0 |
| $10 \%$ | 2.5 |
| $5 \%$ | 2.0 |
| $1 \%$ | 2.0 |
| $0 \%$ Min | 2.0 |




| Quantiles | (Definition 5) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5 |
| $99 \%$ | 5 |
| $95 \%$ | 5 |
| $90 \%$ | 5 |
| $75 \%$ Q3 | 4 |
| $50 \%$ Median | 3 |
| $25 \%$ Q1 | 2 |
| $10 \%$ | 1 |
| $5 \%$ | 1 |
| $1 \%$ | 1 |
| $0 \%$ Min | 1 |


|  | Variable: | D21 (D21) |  |
| :---: | :---: | :---: | :---: |
| N | 79 | Sum Weights | 79 |
| Mean | 2.08860759 | Sum Observations | 165 |
| Std Deviatio | n 1.34154401 | Variance | 1.79974034 |
| Skewness | 1.10934444 | Kurtosis | -0.0317542 |
| Uncorrected | SS 485 | Corrected SS | 140.379747 |
| Coeff Variation | 64.2315013 | Std Error Mean | 0.15093549 |
| Location Basic Statistical Measures |  |  |  |
| Mean | 2.088608 Std D | viation | 1.34154 |
| Median | 2.000000 Varia | nce | 1.79974 |
| Mode | 1.000000 Range |  | 4.00000 |
|  | Inter | quartile Range | 2.00000 |
|  | Quantiles (D | finition 5) |  |
|  | Quantile | Estimate |  |
|  | 100\% Max | 5 |  |
|  | 99\% | 5 |  |
|  | 95\% | 5 |  |
|  | 90\% | 5 |  |
|  | 75\% Q3 | 3 |  |
|  | 50\% Median | 2 |  |
|  | 25\% Q1 | 1 |  |
|  | 10\% | 1 |  |
|  | 5\% | 1 |  |
|  | 1\% | 1 |  |
|  | 0\% Min | 1 |  |


|  | Variable: | D22 (D22) |  |
| :--- | ---: | :--- | ---: |
| N | 77 | Sum Weights | 77 |
| Mean | 3.68831169 | Sum Observations | 284 |
| Std Deviation | 1.05456077 | Variance | 1.11209843 |
| Skewness | -0.8597188 | Kurtosis | 0.43484349 |
| Uncorrected SS | 1132 | Corrected SS | 84.5194805 |
| Coeff Variation | 28.5919647 | Std Error Mean | 0.12017835 |




|  | Variable: | D24 (D24) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.7125 | Sum Observations | 297 |
| Std Deviation | 1.19273911 | Variance | 1.42262658 |
| Skewness | -0.5674519 | Kurtosis | -0.9213734 |
| Uncorrected SS | 1215 | Corrected SS | 112.3875 |
| Coeff Variation | 32.1276528 | Std Error Mean | 0.13335229 |


| Basic |  |  |  |
| :--- | :--- | :--- | :--- |
| Statistical Measures |  |  |  |
| Location | Variability |  |  |
| Mean | 3.712500 | Std Deviation | 1.19274 |
| Median | 4.000000 | Variance | 1.42263 |
| Mode | 4.000000 | Range | 4.00000 |
|  |  | Interquartile Range | 2.00000 |


| Quantiles | (Definition 5 ) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5 |
| $99 \%$ | 5 |
| $95 \%$ | 5 |
| $90 \%$ | 5 |
| $75 \%$ Q3 | 5 |
| $50 \%$ Median | 4 |
| $25 \%$ Q1 | 3 |
| $10 \%$ | 2 |
| $5 \%$ | 2 |
| $1 \%$ | 1 |
| $0 \%$ Min | 1 |


|  | Variable: | D25 (D25) |  |
| :---: | :---: | :---: | :---: |
| $N$ | 80 | Sum Weights | 80 |
| Mean | 3.825 | Sum Observations | 306 |
| Std Deviation | n 1.28057542 | Variance | 1.63987342 |
| Skewness | -0.776239 | Kurtosis | -0.8206988 |
| Uncorrected | SS 1300 | Corrected SS | 129.55 |
| Coeff Variation | ion 33.4790961 | Std Error Mean | 0.14317268 |
| Location Basic Statistical Measures |  |  |  |
|  |  |  |  |
| Mean | 3.825000 Std D | eviation | 1.28058 |
| Median | 4.000000 Varia | nce | 1.63987 |
| Mode | 5.000000 Range |  | 4.00000 |
|  | Inter | quartile Range | 3.00000 |
| Quantiles (Definition 5) |  |  |  |
| Quantile Estimate |  |  |  |
| 100\% Max 5 |  |  |  |
| 99\% 5 |  |  |  |
| 95\% 5 |  |  |  |
| 90\% 5 |  |  |  |
| 75\% Q3 5 |  |  |  |
| 50\% Median 4 |  |  |  |
| 25\% Q1 2 |  |  |  |
| 10\% 2 |  |  |  |
| 5\% 2 |  |  |  |
| 1\% 1 |  |  |  |
|  | 0\% Min | 1 |  |

## Annexure D: <br> Comparison of proportions

|  |  |  | Cumulative |  |
| :---: | :---: | :---: | :---: | :---: |
| Cumulative |  |  |  |  |
|  | A1 Frequency | Percent | Frequency | Percent |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Disagree - Strongly Disagree | ee 30 | 38.46 | 30 | 38.46 |
| Agree - Strongly Agree | 48 | 61.54 | 78 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 4.1538 |  |  |  |  |
| DF 1 |  |  |  |  |
| Pr > ChiSq 0.0415 |  |  |  |  |
| Sample Size $=78$ |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
|  | A2 Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Agree - Strongly Agree | 49 | 63.64 | 77 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| fffffffffffffffffffff |  |  |  |  |
| Chi-Square 5.7273 |  |  |  |  |
| DF 1 |  |  |  |  |
| Pr > ChiSq 0.0167 |  |  |  |  |
| Sample Size = 77 |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
|  | A3 Frequency | Percent | Frequency | Percent |
| $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Disagree - Strongly Disagree | ee 32 | 43.24 | 32 | 43.24 |
| Agree - Strongly Agree | 42 | 56.76 | 74 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| fffffffffffffffffffff |  |  |  |  |
| Chi-Square 1.3514 |  |  |  |  |
| DF 1 |  |  |  |  |
| Pr > ChiSq 0.2450 |  |  |  |  |
| Sample Size $=74$ |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
|  | A4 Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff. |  |  |  |  |
| Disagree - Strongly Disagree | ee 29 | 39.19 | 29 | 39.19 |
| Agree - Strongly Agree | 45 | 60.81 | 74 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| ffffffffffffffffffffff |  |  |  |  |
| Chi-Square 3.4595 |  |  |  |  |
| DF 1 |  |  |  |  |
| Pr > ChiSq 0.0629 |  |  |  |  |
| Sample Size = 74 |  |  |  |  |
|  | Cumulative |  |  |  |
| Cumulative |  |  |  |  |
|  | A5 Frequency | Percent | Frequency | Percent |


| Disagree - Strongly Disagree <br> Agree - Strongly Agree | e 18 | 24.32 | 18 | 24.32 |
| :---: | :---: | :---: | :---: | :---: |
|  | 56 | 75.68 | 74 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 19.5135 |  |  |  |  |
| DF |  |  |  |  |
| Pr > ChiSq <.0001 |  |  |  |  |
| Effective Sample Size $=74$ |  |  |  |  |
| Frequency Missing = 1 |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
|  | 36 Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff. |  |  |  |  |
| Disagree - Strongly Disagree Agree - Strongly Agree | ee $\begin{aligned} & 33 \\ & 44\end{aligned}$ | $\begin{aligned} & 42.86 \\ & 57.14 \end{aligned}$ | 33 77 | $\begin{array}{r} 42.86 \\ 100.00 \end{array}$ |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 1.5714 |  |  |  |  |
| DF 1 |  |  |  |  |
| Pr > ChiSq 0.2100 |  |  |  |  |
| Sample Size $=77$ |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
|  | 37 Frequency | Percent | Frequency | Percent |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Disagree - Strongly Disagree | 26 | 38.24 | 26 | 38.24 |
| Agree - Strongly Agree | 42 | 61.76 | 68 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 3.7647 |  |  |  |  |
| DF 1 |  |  |  |  |
| $\mathrm{Pr}>$ ChiSq 0.0523 |  |  |  |  |
| Sample Size $=68$ |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
|  | 38 Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Agree - Strongly Agree | 43 | 61.43 | 70 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 3.6571 |  |  |  |  |
| DF 1 |  |  |  |  |
| $\mathrm{Pr}>$ ChiSq 0.0558 |  |  |  |  |
| Sample Size $=70$ |  |  |  |  |
|  | Cumulative |  |  |  |
| Cumulative |  |  |  |  |
|  | 39 Frequency | Percent | Frequency | Percent |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff. |  |  |  |  |
| Disagree - Strongly Disagree | 26 | 34.67 | 26 | 34.67 |
| Agree - Strongly Agree | 49 | 65.33 | 75 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 7.0533 |  |  |  |  |
|  | DF | $1$ |  |  |
| $\mathrm{Pr}>$ ChiSq 0.0079 |  |  |  |  |




|  |  |  | Cumulative |  |
| :---: | :---: | :---: | :---: | :---: |
| Cumulative |  |  |  |  |
| D19 | Frequency | Percent | Frequency | Percent |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Disagree - Strongly Disagree | 30 | 42.86 | 30 | 42.86 |
| Agree - Strongly Agree | 40 | 57.14 | 70 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 1.4286 |  |  |  |  |
| DF 1 |  |  |  |  |
| $\mathrm{Pr}>$ ChiSq 0.2320 |  |  |  |  |
| Sample Size $=70$ |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
| D20 | Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff.f |  |  |  |  |
| Agree - Strongly Agree | 39 | 56.52 | 69 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 1.1739 |  |  |  |  |
| DF 1 |  |  |  |  |
| Pr > ChiSq 0.2786 |  |  |  |  |
| Effective Sample Size = 69 |  |  |  |  |
| Frequency Missing = 1 |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
| D21 | Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Agree - Strongly Agree | 15 | 20.27 | 74 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| ffffffffffffffffffffff |  |  |  |  |
| Chi-Square 26.1622 |  |  |  |  |
| DF 1 |  |  |  |  |
| Pr > ChiSq <.0001 |  |  |  |  |
| Effective Sample Size = 74 |  |  |  |  |
| Frequency Missing = 1 |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
| D22 | Frequency | Percent | Frequency | Percent |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Disagree - Strongly Disagree | 10 | 16.39 | 10 | 16.39 |
| Agree - Strongly Agree | 51 | 83.61 | 61 | 100.00 |
|  |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 27.5574 |  |  |  |  |
| DF 1 |  |  |  |  |
| Pr > ChiSq <.0001 |  |  |  |  |
| Effective Sample Size = 61 |  |  |  |  |
| Frequency Missing = 3 |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
| D23 | Frequency | Percent | Frequency | Percent |
| $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Disagree - Strongly Disagree | 14 | 18.92 | 14 | 18.92 |
| Agree - Strongly Agree | 60 | 81.08 | 74 | 100.00 |



## Annexure E:

## Chi-square test for comparisons

Table of Number_residing by A1
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
,gree
ffffffffff ffffffff^ffffffff^
1-6 , $12, \quad 28$, 40
, 15.38 , 35.90 , 51.28
, 30.00 , 70.00 ,
, 40.00 , 58.33 ,
ffffffffff ffffffff^ffffffff

| $>6$ | , | 23.08, | 25.64, |
| :--- | ---: | ---: | ---: |$\quad 48.72$

Statistics for Table of Number residing by A1

|  | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| Statistic | 1 | 2.4837 | 0.1150 |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 2.4964 | 0.1141 |
| Likelihood Ratio Chi-Square | 1 | 1.8041 | 0.1792 |
| Continuity Adj. Chi-Square | 1 | 2.4518 | 0.1174 |
| Mantel-Haenszel Chi-Square | 1 | -0.1784 |  |
| Phi Coefficient |  | 0.1757 |  |
| Contingency Coefficient |  | -0.1784 |  |
| Cramer's V |  |  |  |


| Fisher's Exact Test |  |
| :--- | ---: |
| ffffffffffffffffffffffffffffffffff |  |
| Cell (1,1) Frequency (F) | 12 |
| Left-sided Pr <= F | 0.0895 |
| Right-sided Pr >= F | 0.9651 |
| Table Probability (P) | 0.0545 |
| Two-sided Pr <= P | 0.1626 |

Sample Size $=78$
Table of Number_residing by A2 Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff 'ffffffff ffffffff^ 1-6 , 14 , 26 , 40
, 18.18 , 33.77 , 51.95
, 35.00 , 65.00 ,
, 50.00 , 53.06 ,
fffffffff ${ }^{\wedge} f f f f f f f^{\wedge} f f f f f f f f$
$>6$, 14,23 , 37
, $18.18,29.87,48.05$
, 37.84 , 62.16, fffffffff^ffffffff^ffffffff^

| Total | 28 | 49 | 77 |
| :--- | ---: | ---: | ---: |
|  | 36.36 | 63.64 | 100.00 |

Statistics for Table of Number_residing by A2
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 100.06690 .7959
Likelihood Ratio Chi-Square 1 0.0669 0.7959
Continuity Adj. Chi-Square $1 \quad 0.00050 .9828$

| Mantel-Haenszel Chi-Square | 1 | 0.0660 | 0.7972 |
| :--- | :--- | :--- | :--- | :--- |


| Phi Coefficient | -0.0295 |
| :--- | ---: |
| Contingency Coefficient | 0.0295 |
| Cramer's V | -0.0295 |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 14 Left-sided Pr <= F 0.4911 Right-sided Pr >= F 0.6900 Table Probability (P) 0.1810 Two-sided Pr <= P 0.8169

Sample Size = 77
Table of Number_residing by A3 Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff ,ffffffff^ffffffff*
1-6 , $13, \quad 25$, 38
, $17.57,33.78,51.35$
, 34.21 , 65.79 ,
, 40.63 , 59.52 ,
ffffffffff ffffffff^ffffffff
$>6 \quad, \quad 19,17, \quad 36$
, $25.68,22.97,48.65$
, 52.78 , 47.22 ,
, 59.38 , 40.48 ,
ffffffffff fffffffff ffffffff^

| Total | 32 | 42 | 74 |
| :--- | ---: | ---: | ---: |

Statistics for Table of Number_residing by A3
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 1

| Likelihood Ratio Chi-Square | 1 | 2.6108 | 0.1061 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 1 1.8952 0.1686

| Mantel-Haenszel Chi-Square | 1 | 2.5616 | 0.1095 |
| :--- | :--- | :--- | :--- |

Phi Coefficient
-0.1873
Contingency Coefficient 0.1841
Cramer's V
$-0.1873$
Fisher's Exact Test fffffffffffffffffffffffffffffffffff
Cell (1,1) Frequency (F) 13
Left-sided Pr <= F 0.0841

Right-sided Pr >= F 0.9679
Table Probability (P) 0.0520
Two-sided Pr <= P 0.1588
Sample Size = 74

Table of Number_residing by A4
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
fffffffff , ffffffff^ffffffff ’
1-6 , 15,24 , 39
, $20.27,32.43,52.70$
, 38.46 , 61.54 ,
, 51.72 , 53.33
fffffffff^ffffffff^ffffffff^
>6 , 14 , 21 , 35
$18.92,28.38,47.30$
, 40.00 , 60.00 ,
, 48.28 , 46.67,

| fffffffff^ffffffff^ffffffff |  |  |  |
| :--- | :---: | :---: | ---: |
| Total | 29 | 45 | 74 |
|  | 39.19 | 60.81 | 100.00 |

Statistics for Table of Number_residing by A4

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0183 | 0.8923 |
| Likelihood Ratio Chi-Square | 1 | 0.0183 | 0.8923 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0181 | 0.8931 |
| Phi Coefficient |  | -0.0157 |  |
| Contingency Coefficient |  | 0.0157 |  |
| Cramer's V |  | -0.0157 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 15 Left-sided Pr <= F 0.5406 Right-sided Pr >= F 0.6459 Table Probability (P) 0.1865 Two-sided Pr <= P 1.0000

Sample Size = 74

Table of Number_residing by A5 Frequency, Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff^ffffffff^ffffffff
1-6 , $7, \quad 32$
, $9.46,43.24,52.70$
, 17.95 , 82.05 ,
, 38.89 , 57.14 ,
fffffffff^ffffffff^ffffffff
$>6 \quad 11$, 24 , 35
, $14.86,32.43,47.30$
, 31.43 , 68.57 ,
, 61.11, 42.86 , ffffffffff ffffffff ffffffff*
Total $18 \quad 56$
$24.32 \quad 75.68 \quad 100.00$
Statistics for Table of Number_residing by A5
Statistic DF Value Prob
ffffffffffffffffffffffffffffffffffffffffffffffffffffff
Chi-Square $\quad 1 \quad 1.8209 \quad 0.1772$
Likelihood Ratio Chi-Square 1 1.8268 0.1765

| Continuity Adj. Chi-Square | 1 | 1.1622 | 0.2810 |
| :--- | :--- | :--- | :--- |

Mantel-Haenszel Chi-Square 1 1.7962 0.1802
Cramer's V -0.1569

Fisher's Exact Test $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 7 Left-sided Pr <= F 0.1406 Right-sided Pr >= F 0.9478 Table Probability (P) 0.0883 Two-sided Pr <= P 0.2777

Effective Sample Size = 74
Frequency Missing = 1

Table of Number_residing by B6 Frequency,
Percent Row Pct ,


Statistics for Table of Number_residing by B6

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.1084 | 0.2924 |
| Likelihood Ratio Chi-Square | 1 | 1.1117 | 0.2917 |
| Continuity Adj. Chi-Square | 1 | 0.6765 | 0.4108 |
| Mantel-Haenszel Chi-Square | 1 | 1.0940 | 0.2956 |
| Phi Coefficient |  | 0.1200 |  |
| Contingency Coefficient |  | 0.1191 |  |
| Cramer's V |  | 0.1200 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 19 Left-sided Pr <= F 0.9004 Right-sided Pr >= F 0.2055 Table Probability (P) 0.1060
Two-sided Pr <= P 0.3594

Sample Size = 77

Table of Number_residing by B7 Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree

$1-6 \quad 16,19, \quad 35$
, 23.53 , 27.94 , 51.47
, 45.71, 54.29,
, 61.54 , 45.24 ,
ffffffffff ${ }^{\prime} f f f f f f f^{\wedge} f f f f f f f f$
$>6$, 10,23 , 33
, $14.71,33.82,48.53$
, 30.30 , 69.70 ,
, 38.46 , 54.76 ,
ffffffffff fffffffff ffffffff^

| Total | 26 | 42 | 68 |
| :--- | ---: | ---: | ---: |
|  | 38.24 | 61.76 | 100.00 |

Statistics for Table of Number_residing by B7
Statistic DF Value Prob fffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 1

| Likelihood Ratio Chi-Square | 1 | 1.7199 | 0.1897 |
| :--- | :--- | :--- | :--- |


| Continuity Adj. Chi-Square | 1 | 1.1180 | 0.2904 |
| :--- | :--- | :--- | :--- | :--- |

$\begin{array}{lllll}\text { Mantel-Haenszel Chi-Square } & 1 & 1.6831 & 0.1945\end{array}$
Phi Coefficient
0.1585

Contingency Coefficient 0.1565
Cramer's V 0.1585
Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$

| Cell (1,1) Frequency (F) | 16 |
| :--- | ---: |
| Left-sided Pr <= F | 0.9407 |
| Right-sided Pr >= F | 0.1452 |
| Table Probability (P) | 0.0859 |
| Two-sided Pr <= P | 0.2200 |
| Sample Size = 68 |  |

Table of Number_residing by B8
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ’ffffffff ffffffff^
1-6 , 14 , 21 , 35
, 20.00 , 30.00 , 50.00
, 40.00 , 60.00 ,
, 51.85 , 48.84 ,
ffffffffff ffffffff^ffffffff
$>6 \quad, \quad 13, \quad 22$, 35
, $18.57,31.43,50.00$
, 37.14 , 62.86 ,


| Total | 27 | 43 | 70 |
| :--- | ---: | ---: | ---: |
|  | 38.57 | 61.43 | 100.00 |

Statistics for Table of Number_residing by B8

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0603 | 0.8060 |
| Likelihood Ratio Chi-Square | 1 | 0.0603 | 0.8060 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0594 | 0.8074 |
| Phi Coefficient |  | 0.0293 |  |
| Contingency Coefficient |  | 0.0293 |  |
| Cramer's V |  | 0.0293 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency ( $F$ ) 14
Left-sided Pr <= F 0.6881

Right-sided Pr >= F 0.5000
Table Probability (P) 0.1881
Two-sided Pr <= P 1.0000
Sample Size $=70$
Table of Number_residing by B9
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron, Strongly,
,gly Disa, Agree
, gree
fffffffff ffffffff^ffffffff
1-6 , 11 , 28 , 39
, $14.67,37.33,52.00$
, 28.21 , 71.79
, 42.31, 57.14,
fffffffff^ffffffff^ffffffff^
$>6$, 15 , 36
, 20.00 , 28.00 , 48.00
, 41.67 , 58.33 ,
, 57.69 , 42.86 ,
ffffffffff ffffffff^ffffffff^

| Total | 26 | 49 | 75 |
| :--- | ---: | ---: | ---: |
|  | 34.67 | 65.33 | 100.00 |

Statistics for Table of Number_residing by B9
Statistic DF Value Prob


Table of Number_residing by B10 Frequency, Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff ’ffffffff^ffffffff^
1-6 , $11, \quad 25$, 36
, 14.86 , 33.78 , 48.65
, 30.56 , 69.44 ,
, 64.71 , 43.86
fffffffff^ffffffff^ffffffff
$>6$, 62,38
, $8.11,43.24,51.35$
, 15.79 , 84.21 ,
, 35.29 , 56.14 ,
ffffffffff ${ }^{\prime}$ ffffffff ${ }^{\prime}$ ffffffff^

| Total | 17 | 57 | 74 |
| :--- | ---: | ---: | ---: |
|  | 22.97 | 77.03 | 100.00 |

Statistics for Table of Number_residing by B10

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 2.2778 | 0.1312 |
| Likelihood Ratio Chi-Square | 1 | 2.3003 | 0.1293 |
| Continuity Adj. Chi-Square | 1 | 1.5198 | 0.2176 |
| Mantel-Haenszel Chi-Square | 1 | 2.2471 | 0.1339 |
| Phi Coefficient |  | 0.1754 |  |
| Contingency Coefficient |  | 0.1728 |  |
| Cramer's V |  | 0.1754 |  |

Fisher's Exact Test
fffffffffffffffffffffffffffffffffff
Cell (1,1) Frequency (F) 11
Left-sided Pr <= F 0.9636

Right-sided Pr >= F 0.1087
Table Probability (P) 0.0723
Two-sided Pr <= P 0.1705
Effective Sample Size $=74$
Frequency Missing = 1

Table of Number_residing by B11
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff ffffffff^ffffffff
1-6 , 9 , 36


Statistics for Table of Number_residing by B11

| Statistics for Table of |  |  |  |
| :--- | :---: | :---: | ---: |
| Statistic | DF | Value | Prob |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.8291 | 0.1762 |
| Likelihood Ratio Chi-Square | 1 | 1.8440 | 0.1745 |
| Continuity Adj. Chi-Square | 1 | 1.1148 | 0.2910 |
| Mantel-Haenszel Chi-Square | 1 | 1.8047 | 0.1791 |
| Phi Coefficient |  | 0.1562 |  |
| Contingency Coefficient |  | 0.1543 |  |
| Cramer's V |  | 0.1562 |  |

Fisher's Exact Test

| ffffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 9 |
| Left-sided Pr <= F | 0.9511 |
| Right-sided Pr >= F | 0.1456 |
| Table Probability (P) | 0.0967 |
| Two-sided Pr <= P | 0.2387 |
| Sample Size = 75 |  |

Table of Number_residing by B12
Frequency, Percent Row Pct , Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ffffffff^ffffffff^
1-6 , $16, \quad 23$, 39
, $21.05,30.26,51.32$
, 41.03 , 58.97 ,
, 72.73 , 42.59
ffffffffff ffffffff^ffffffff
$>6,37$
, $7.89,40.79$,
48.68
, 16.22 , 83.78
, 27.27 , 57.41 ,
ffffffffff ffffffff^ffffffff^
Total $22 \quad 54$
$28.95 \quad 71.05 \quad 100.00$

| Statistics for Table of |  |  |  |
| :--- | :---: | :---: | ---: |
| Stamber_residing by B12 |  |  |  |
| Stic | DF | Value | Prob |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 5.6819 | 0.0171 |
| Likelihood Ratio Chi-Square | 1 | 5.8535 | 0.0155 |
| Continuity Adj. Chi-Square | 1 | 4.5397 | 0.0331 |
| Mantel-Haenszel Chi-Square | 1 | 5.6072 | 0.0179 |
| Phi Coefficient |  | 0.2734 |  |
| Contingency Coefficient |  | 0.2637 |  |
| Cramer's V | 0.2734 |  |  |

Fisher's Exact Test

| ffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 16 |
| Left-sided Pr <= F | 0.9963 |
| Right-sided Pr >= F | 0.0158 |
| Table Probability (P) | 0.0121 |
| Two-sided Pr <= P | 0.0230 |
| Sample Size = 76 |  |

Table of Number_residing by B13



Table of Number_residing by C14
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff^ffffffff^ffffffff
1-6 , 16 , 25 , 41
, 20.25 , 31.65 , 51.90
, 39.02 , 60.98 ,
, 50.00 , 53.19 ,
$f f f f f f f f f f^{\wedge} f f f f f f f^{\wedge} f f f f f f f f$
>6 , 16 , 22 , 38
, $20.25,27.85,48.10$
, 42.11 , 57.89 ,
, 50.00 , 46.81 ,
fffffffff^ffffffff^ffffffff
Total $32 \quad 47$
$40.51 \quad 59.49 \quad 100.00$
Statistics for Table of Number_residing by C14 Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 100.07770 .7805 Likelihood Ratio Chi-Square 1 0.0777 0.7805 $\begin{array}{lllll}\text { Continuity Adj. Chi-Square } & 1 & 0.0024 & 0.9606\end{array}$ Mantel-Haenszel Chi-Square 1 0.0767 0.7818

| Phi Coefficient | -0.0314 |
| :--- | ---: |
| Contingency Coefficient | 0.0313 |
| Cramer's V | -0.0314 |

Fisher's Exact Test

| ffffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 16 |
| Left-sided Pr <= F | 0.4801 |
| Right-sided Pr >= F | 0.6943 |
| Table Probability (P) | 0.1744 |
| Two-sided Pr <= P | 0.8216 |

Sample Size = 79

Table of Number_residing by C15
Frequency,
Percent
Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ffffffff^ffffffff
1-6 , 6 , 33
$7.89,43.42$,
, 15.38 , 84.62 ,
, 66.67 , 49.25 , fffffffff^ffffffff^ffffffff^
$>6$, 34 , 37
, $3.95,44.74,48.68$
, 8.11 , 91.89 ,
, 33.33 , 50.75 fffffffff^ffffffff^ffffffff^ Total 9676
$11.84 \quad 88.16 \quad 100.00$
Statistics for Table of Number_residing by C15
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff

| Chi-Square | 1 | 0.9630 | 0.3264 |
| :--- | :--- | :--- | :--- |

Likelihood Ratio Chi-Square 1 0.9817 0.3218

| Continuity Adj. Chi-Square | 1 | 0.3921 | 0.5312 |
| :--- | :--- | :--- | :--- | :--- |


| Mantel-Haenszel Chi-Square 1 | 0.9503 | 0.3296 |
| :--- | :--- | :--- | :--- | :--- |

Phi Coefficient
0.1126

Contingency Coefficient
0.1119

Cramer's V
0.1126

WARNING: $50 \%$ of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency (F) 6 Left-sided Pr <= F 0.9106 Right-sided Pr >= F 0.2673
Table Probability (P) 0.1779
Two-sided Pr <=
0.4814

Sample Size = 76

Table of Number_residing by C16
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff^ffffffff^ffffffff
1-6 , 4 , 35
, 5.19 , 45.45 ,
50.65
, 10.26 , 89.74
, 80.00 , 48.61
ffffffffffffffffff^ffffffff
>6 , 1 , 37

$$
\begin{aligned}
& \text {, } 1.30,48.05 \text {, } 49.35 \\
& \text {, } 2.63,97.37, \\
& \text { ffffffffff^ffffffff^ffffffff^ } \\
& \begin{array}{lrrr}
\text { Total } & 5 & 72 & 77 \\
& 6.49 & 93.51 & 100.00
\end{array}
\end{aligned}
$$

Statistics for Table of Number_residing by C16

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | :---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.8429 | 0.1746 |
| Likelihood Ratio Chi-Square | 1 | 1.9700 | 0.1604 |
| Continuity Adj. Chi-Square | 1 | 0.8010 | 0.3708 |
| Mantel-Haenszel Chi-Square | 1 | 1.8189 | 0.1774 |
| Phi Coefficient |  | 0.1547 |  |
| Contingency Coefficient |  | 0.1529 |  |
| Cramer's V |  | 0.1547 |  |

WARNING: 50\% of the cells have expected counts less than 5 . Chi-Square may not be a valid test.

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 4 Left-sided Pr <= F 0.9709 Right-sided Pr >= F 0.1873 Table Probability (P) 0.1582 Two-sided Pr <= P 0.3584

Sample Size = 77

Table of Number_residing by C17 Frequency, Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree

1-6 , 4,34
, 5.33 , 45.33 , 50.67
, $10.53,89.47$,
, $57.14,50.00$,
ffffffffff ffffffff^fffffffff
$>6$, 3,37
, $4.00,45.33,49.33$
, 8.11, 91.89,
, 42.86 , 50.00 ,
fffffffff^ffffffff^ffffffff^

| Total | 7 | 68 | 75 |
| :--- | ---: | ---: | ---: |

Statistics for Table of Number_residing by C17
Statistic DF Value Prob $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 100.12950 .7189

| Likelihood Ratio Chi-Square | 1 | 0.1300 | 0.7184 |
| :--- | :--- | :--- | :--- | :--- |


| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| :--- | :--- | :--- | :--- | :--- |

$\begin{array}{lllll}\text { Mantel-Haenszel Chi-Square } & 1 & 0.1278 & 0.7207\end{array}$
Phi Coefficient
0.0416

Contingency Coefficient 0.0415
Cramer's V 0.0416
WARNING: $50 \%$ of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 4 Left-sided Pr <= F 0.7738 Right-sided Pr >= F 0.5152 Table Probability (P) 0.2890 Two-sided Pr <= P 1.0000

Table of Number_residing by C18 Frequency,
Percent
Row Pct
Col Pct ,Disagree, Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree , ,gree
ffffffffff fffffffff ffffffff^
$1-6,41$
, $1.28,51.28,52.56$
, $2.44,97.56$,
, 12.50 , 57.14 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
$>6$, 7,37
, $8.97,38.46,47.44$
, 18.92 , 81.08 ,
, 87.50 , 42.86 ,
fffffffff^ffffffff^ffffffff^
Total $\quad 8 \quad 70 \quad 78$
$10.26 \quad 89.74 \quad 100.00$

Statistics for Table of Number residing by C18

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 5.7385 | 0.0166 |
| Likelihood Ratio Chi-Square | 1 | 6.2903 | 0.0121 |
| Continuity Adj. Chi-Square | 1 | 4.0878 | 0.0432 |
| Mantel-Haenszel Chi-Square | 1 | 5.6650 | 0.0173 |
| Phi Coefficient |  | -0.2712 |  |
| Contingency Coefficient |  | 0.2618 |  |
| Cramer's V |  | -0.2712 |  |

WARNING: $50 \%$ of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency (F) 1
Left-sided Pr <= F 0.0196

Right-sided Pr >= F 0.9984
Table Probability (P) 0.0180
Two-sided Pr <= P 0.0237

Sample Size $=78$

Table of Number_residing by D19
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff fffffffff ffffffff^
$1-6$, 18,19 , 37
, $25.71,27.14,52.86$
, 48.65 , 51.35 ,
, 60.00 , 47.50 ,
fffffffff^ffffffff^ffffffff
$>6 \quad 12, \quad 21$, 33
$17.14,30.00,47.14$
, 36.36 , 63.64 ,
, 40.00 , 52.50
fffffffff ${ }^{\prime} f f f f f f f f f^{\wedge} f f f f f f f$ ^
Total $\quad 30 \quad 40$

Statistics for Table of Number_residing by D19 Statistic DF Value Prob fffffffffffffffffffffffffffffffffffffffffffffffffffffff

| Chi-Square | 1 | 1.0749 | 0.2998 |
| :--- | :--- | :--- | :--- |
| Likelihood Ratio Chi-Square | 1 | 1.0795 | 0.2988 |
| Continuity Adj. Chi-Square | 1 | 0.6318 | 0.4267 |
| Mantel-Haenszel Chi-Square | 1 | 1.0596 | 0.3033 |
| Phi Coefficient |  | 0.1239 |  |
| Contingency Coefficient |  | 0.1230 |  |
| Cramer's V |  | 0.1239 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell (1,1) Frequency (F) 18
Left-sided Pr <= F 0.8997

Right-sided Pr >= F 0.2136
Table Probability (P) 0.1133
Two-sided Pr <= P 0.3406
Sample Size $=70$

Table of Number_residing by D20 Frequency, Percent Row Pct , Col Pct ,Disagree,Agree - , Total , - Stron,Strongly, ,gly Disa, Agree , , gree
ffffffffff ffffffff^ffffffff
1-6 , 16,19 , 35
, $23.19,27.54,50.72$
, 45.71 , 54.29 ,
, 53.33 , 48.72
fffffffff^ffffffff^ffffffff


Statistics for Table of Number residing by D20

|  | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| Statistic | 1 | 0.1445 | 0.7038 |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.1446 | 0.7038 |
| Likelihood Ratio Chi-Square | 1 | 0.0188 | 0.8908 |
| Continuity Adj. Chi-Square | 1 | 0.1424 | 0.7059 |
| Mantel-Haenszel Chi-Square | 1 | 0.0458 |  |
| Phi Coefficient |  | 0.0457 |  |
| Contingency Coefficient |  | 0.0458 |  |
| Cramer's V |  |  |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 16 Left-sided Pr <= F 0.7331 Right-sided Pr >= F 0.4455 Table Probability (P) 0.1787 Two-sided $\operatorname{Pr}<=P \quad 0.8094$

Effective Sample Size $=69$ Frequency Missing = 1

## Table of Number_residing by D21

 Frequency,Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
$\begin{array}{ll}\text { gree , gree } \\ \text { ffffffff } \\ 1-6 & 28,\end{array}$

| 1-6 |  |  |
| :---: | :---: | :---: |
|  |  |  |

, 73.68 , 26.32 ,


Table of Number_residing by D23

## Frequency,

Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff 'ffffffff^fffffffff
1-6 , $6, \quad 30,36$
, $8.11,40.54,48.65$
, 16.67 , 83.33
, 42.86 , 50.00 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
$>6$, 80 , 38
, $10.81,40.54,51.35$
, 21.05 , 78.95 ,
, 57.14 , 50.00 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$

| Total | 14 | 60 | 74 |
| :--- | ---: | ---: | ---: |
|  | 18.92 | 81.08 | 100.00 |

Statistics for Table of Number_residing by D23
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff

| Chi-Square | 1 | 0.2318 | 0.6302 |
| :--- | ---: | ---: | ---: |
| Likelihood Ratio Chi-Square | 1 | 0.2326 | 0.6296 |
| Continuity Adj. Chi-Square | 1 | 0.0341 | 0.8536 |
| Mantel-Haenszel Chi-Square | 1 | 0.2287 | 0.6325 |
| Phi Coefficient |  | -0.0560 |  |
| Contingency Coefficient |  | 0.0559 |  |
| Cramer's V |  | -0.0560 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 6 Left-sided $\mathrm{Pr}<=\mathrm{F}$ 0.4278 Right-sided Pr >= F 0.7811 Table Probability (P) 0.2089 Two-sided Pr <= P 0.7690

Sample Size = 74

Table of Number_residing by D24 Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff „ffffffff^ffffffff^
1-6 , $10, \quad 28$, 38
, $13.89,38.89,52.78$
, 26.32 , 73.68 ,
, 52.63 , 52.83 ,
ffffffffff ${ }^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
$>6$, 9 , 34
, $12.50,34.72,47.22$
, 26.47 , 73.53,
ffffffffff ffffffff^ffffffff^

| Total | 19 | 53 | 72 |
| :--- | ---: | ---: | ---: |

Statistics for Table of Number_residing by D24
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 100.00020 .9881

| Likelihood Ratio Chi-Square | 1 | 0.0002 | 0.9881 |
| :--- | :--- | :--- | :--- | :--- |


| Continuity Adj. Chi-Square 10.0000 | 1.0000 |
| :--- | :--- | :--- | :--- | :--- |


| Mantel-Haenszel Chi-Square | 1 | 0.0002 | 0.9882 |
| :--- | ---: | ---: | ---: |
| Phi Coefficient |  | -0.0018 |  |
| Contingency Coefficient |  | 0.0018 |  |
| Cramer's V |  | -0.0018 |  |

Fisher's Exact Test $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 10 Left-sided Pr <= F 0.5987 Right-sided Pr >= F 0.6119 Table Probability (P) 0.2106 Two-sided Pr <= P 1.0000

Sample Size = 72

Table of Number_residing by D25
Frequency,
Percent Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff^ffffffff^ffffffff^
1-6 , $10, \quad 30$, 40
, 12.66 , 37.97 , 50.63
, 25.00 , 75.00
, 47.62, 51.72,
fffffffff^ffffffff^ffffffff
>6 , 11 , 28 , 39
, $13.92,35.44$, 49.37
, 28.21 , 71.79 ,
, 52.38 , 48.28 ,
ffffffffff $f f f f f f f f \wedge f f f f f f f f$

| Total | 21 | 58 | 79 |
| :--- | ---: | ---: | ---: |
|  | 26.58 | 73.42 | 100.00 |

Statistics for Table of Number_residing by D25
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffffff
Chi-Square 10.10390 .7471

| Likelihood Ratio Chi-Square | 1 | 0.1040 | 0.7471 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 100.00460 .9460

| Mantel-Haenszel Chi-Square 10.1026 | 0.7487 |
| :--- | :--- | :--- | :--- | Phi Coefficient

-0.0363
Contingency Coefficient 0.0362
Cramer's V
$-0.0363$
Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell (1,1) Frequency (F) 10
Left-sided Pr <= F 0.4729

Right-sided Pr >= F 0.7178
Table Probability (P) 0.1907
Two-sided Pr <= P 0.8027
Sample Size = 79

Table of Number_home by A1
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff , greefffff^ffffffff^
0-2 , 10,18 , 28
, $14.71,26.47,41.18$
, 35.71 , 64.29,
, 40.00 , 41.86 ,
fffffffff $f f f f f f f f^{\wedge} f f f f f f f f$
$>2$, $15, \quad 25,40$
, $22.06,36.76$, 58.82


Statistics for Table of Number_home by A1

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0226 | 0.8805 |
| Likelihood Ratio Chi-Square | 1 | 0.0226 | 0.8804 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0223 | 0.8814 |
| Phi Coefficient |  | -0.0182 |  |
| Contingency Coefficient |  | 0.0182 |  |
| Cramer's V |  | -0.0182 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 10 Left-sided Pr <= F 0.5434 Right-sided Pr >= F 0.6560 Table Probability (P) 0.1995 Two-sided Pr <= P 1.0000

Sample Size = 68

> Table of Number_home by A2 Frequency, Percent Row Pct , Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ffffffff^ffffffff 0-2 , 10 , 19 , 29
, $14.93,28.36,43.28$
, 34.48 , 65.52 ,
, 43.48 , 43.18 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
$>2 \quad, \quad 13, \quad 25, \quad 38$
, 19.40 , 37.31 , 56.72
, 34.21 , 65.79 ,
, 56.52 , 56.82
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$ ^

| Total | 23 | 44 | 67 |
| :--- | ---: | ---: | ---: |
|  | 34.33 | 65.67 | 100.00 |

Statistics for Table of Number home by A2
Statistic DF Value Prob fffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 100.000500 .9814

| Likelihood Ratio Chi-Square | 1 | 0.0005 | 0.9815 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square $1 \quad 0.00001 .0000$

| Mantel-Haenszel Chi-Square 1 | 0.0005 | 0.9816 |
| :--- | :--- | :--- | :--- | :--- |

Phi Coefficient
0.0028

Contingency Coefficient 0.0028
Cramer's V
0.0028

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency (F) 10
Left-sided Pr <= F 0.6125

Right-sided Pr >= F 0.5919
Table Probability (P) 0.2044
Two-sided Pr <= P 1.0000
Sample Size $=67$

Table of Number_home by A3
Frequency,
Percent
Row Pct ,


| Cell (1,1) Frequency (F) | 11 |
| :--- | ---: |
| Left-sided Pr <= F | 0.6086 |
| Right-sided Pr >= F | 0.5943 |
| Table Probability (P) | 0.2030 |
| Two-sided Pr <= P | 1.0000 |
| Sample Size = 64 |  |

Table of Number_home by A5
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ’ffffffff ffffffff^
0-2 , 9 , 19
, $14.06,29.69,43.75$
, 32.14 , 67.86 ,
, 50.00 , 41.30 ,
fffffffff^ffffffff^ffffffff
$>2 \quad, \quad 97$
, 14.06 , $42.19,56.25$
, 25.00 , 75.00 ,
fffffffff^ffffffff^fffffffff

| Total | 18 | 46 | 64 |
| :--- | ---: | ---: | ---: |
|  | 28.13 | 71.88 | 100.00 |

Statistics for Table of Number_home by A5 Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 100.397500 .5284

| Likelihood Ratio Chi-Square | 1 | 0.3958 | 0.5293 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 1 0.1227 0.7261

| Mantel-Haenszel Chi-Square | 1 | 0.3913 | 0.5316 |
| :--- | :--- | :--- | :--- | :--- | Phi Coefficient

$0.3913 \quad 0.5316$
0.0788

Cramer's V
0.0786
0.0788

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell (1,1) Frequency (F) 9
Left-sided $\operatorname{Pr}<=\mathrm{F} \quad 0.8189$

Right-sided Pr >= F 0.3617
Table Probability (P) 0.1805
Two-sided Pr <= P 0.5831
Effective Sample Size $=64$
Frequency Missing = 1

Table of Number_home by B6
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff^ffffffff^ffffffff^
0-2 , 10 , 19 , 29
, 14.71 , 27.94 , 42.65
, 34.48 , 65.52 ,
, 40.00 , 44.19 ,
ffffffffff ffffffff^ffffffff
>2 , 15 , 24 , 39
, 22.06 , $35.29,57.35$
, 38.46 , 61.54 ,
, 60.00 , 55.81 ,
$f f f f f f f f f^{\wedge} f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
Total $25 \quad 43 \quad 68$
$36.76 \quad 63.24 \quad 100.00$


Table of Number_home by B8 Frequency, Percent Row Pct , Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff ffffffff^ffffffff
0-2 $\quad 5,22,27$


Frequency Missing = 2

Table of Number_home by B10 Frequency, Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ffffffff^ffffffff^
0-2 , 8 , 18 , 26
, $12.50,28.13,40.63$
, 30.77 , 69.23 ,
, 50.00 , 37.50
ffffffffff $f f f f f f f f f^{\wedge} f f f f f f f f$
>2 , 8 , 38
, $12.50,46.88$, 59.38
, 21.05 , 78.95 ,
, 50.00 , 62.50 ,
$f f f f f f f f f f^{\wedge} f f f f f f f f f^{\wedge} f f f f f f f f$ ^

| Total | 16 | 48 | 64 |
| :--- | ---: | ---: | ---: |
|  | 25.00 | 75.00 | 100.00 |

Statistics for Table of Number_home by B10
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff

| Chi-Square | 1 | 0.7773 | 0.3780 |
| :--- | :--- | :--- | :--- |
| Likelihood Ratio Chi-Square | 1 | 0.7687 | 0.3806 |
| Continuity Adj. Chi-Square | 1 | 0.3455 | 0.5567 |
| Mantel-Haenszel Chi-Square | 1 | 0.7652 | 0.3817 |
| Phi Coefficient |  | 0.1102 |  |
| Contingency Coefficient |  | 0.1095 |  |
| Cramer's V |  | 0.1102 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 8 Left-sided Pr <= F 0.8797 Right-sided Pr >= F 0.2767 Table Probability (P) 0.1564 Two-sided Pr <= P 0.3957

Effective Sample Size $=64$
Frequency Missing = 1

Table of Number_home by B11
Frequency,
Percent
Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,

0-2 , 8 , 17 , 25
, $12.31,26.15,38.46$
, 32.00 , 68.00 ,
, 61.54 , 32.69 ,
fffffffff $f f f f f f f f^{\wedge} f f f f f f f f$
$>2$, 5 , 35
, 7.69 , 53.85
, 12.50 , 87.50
, 38.46 , 67.31 ffffffffff fffffffff ffffffff^
Total $13 \quad 52 \quad 65$
$20.00 \quad 80.00 \quad 100.00$
Statistics for Table of Number_home by B11
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffffff
Chi-Square $\quad 1 \quad 3.6563 \quad 0.0559$
Likelihood Ratio Chi-Square 1 3.5672 0.0589

| Continuity Adj. Chi-Square | 1 | 2.5391 | 0.1111 |
| :--- | :--- | :--- | :--- |
| Mantel-Haenszel Chi-Square | 1 | 3.6000 | 0.0578 |
| Phi Coefficient |  | 0.2372 |  |
| Contingency Coefficient |  | 0.2308 |  |
| Cramer's V |  | 0.2372 |  |

Fisher's Exact Test ffffffffffffffffffffffffffffffffff Cell (1,1) Frequency (F) 8 Left-sided Pr <= F 0.9864 Right-sided Pr >= F 0.0569 Table Probability (P) 0.0433 Two-sided Pr <= P 0.1084

Sample Size $=65$

Table of Number_home by B12
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
,gree
ffffffffff ’ffffffff^ffffffff^
$0-2$, 10,18 , 28
, $15.15,27.27,42.42$
, 35.71 , 64.29,
, 55.56 , 37.50
fffffffff^ffffffff^ffffffff^
>2 , 8 , 38
, $12.12,45.45,57.58$
, 21.05 , 78.95 ,
, 44.44 , 62.50 , fffffffff ffffffff^ffffffff^ Total $\quad 18 \quad 48 \quad 66$
$27.27 \quad 72.73 \quad 100.00$

Statistics for Table of Number_home by B12

|  | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| Statistic | 1 | 1.7472 | 0.1862 |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.7337 | 0.1879 |
| Likelihood Ratio Chi-Square | 1 | 1.0862 | 0.2973 |
| Continuity Adj. Chi-Square | 1 | 1.7207 | 0.1896 |
| Mantel-Haenszel Chi-Square | 1 | 0.1627 |  |
| Phi Coefficient |  | 0.1606 |  |
| Contingency Coefficient |  | 0.1627 |  |
| Cramer's V |  |  |  |

## Fisher's Exact Test

| fffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 10 |
| Left-sided Pr <= F | 0.9449 |
| Right-sided Pr >= F | 0.1488 |
| Table Probability (P) | 0.0937 |
| Two-sided Pr <= P | 0.2641 |
| Sample Size = 66 |  |

Table of Number_home by B13



Statistics for Table of Number_home by B13

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.5460 | 0.2137 |
| Likelihood Ratio Chi-Square | 1 | 1.5628 | 0.2113 |
| Continuity Adj. Chi-Square | 1 | 0.9803 | 0.3221 |
| Mantel-Haenszel Chi-Square | 1 | 1.5226 | 0.2172 |
| Phi Coefficient |  | -0.1530 |  |
| Contingency Coefficient |  | 0.1513 |  |
| Cramer's V |  | -0.1530 |  |

Fisher's Exact Test $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency ( $F$ ) 9 Left-sided Pr <= F 0.1611 Right-sided Pr >= F 0.9335 Table Probability (P) 0.0946 Two-sided Pr <= P 0.3112

Sample Size = 66
Table of Number_home by C14 Frequency, Percent Row Pct , Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff 'ffffffff ffffffff^ 0-2 , 17, 12 , 29
, $24.64,17.39,42.03$
, 58.62 , 41.38 ,
, 58.62 , 30.00 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
$>2 \quad, \quad 12, \quad 28$, 40
, $17.39,40.58,57.97$
, 30.00 , 70.00 ,
, 41.38 , 70.00 , ffffffffff fffffffff ffffffff^

| Total | 29 | 40 | 69 |
| :--- | ---: | ---: | ---: |
|  | 42.03 | 57.97 | 100.00 |

Statistics for Table of Number_home by C14
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square $1 \quad 5.652100 .0174$

| Likelihood Ratio Chi-Square | 1 | 5.6879 | 0.0171 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 1 4.5384 0.0331

| Mantel-Haenszel Chi-Square 1 | 5.57020 .0183 |
| :--- | :--- | :--- | :--- |

Phi Coefficient
0.2862

Contingency Coefficient 0.2752
Cramer's V
0.2862

Fisher's Exact Test
fffffffffffffffffffffffffffffffffff
Cell $(1,1)$ Frequency ( $F$ ) 17
Left-sided Pr <= F 0.9958
Right-sided Pr >= F 0.0164

Table Probability (P) 0.0122
Two-sided Pr <= P 0.0260
Sample Size $=69$

Table of Number_home by C15
Frequency,
Percent
Row Pct ,

than 5. Chi-Square may not be a valid test.
Fisher's Exact Test
fffffffffffffffffffffffffffffffffff
Cell (1,1) Frequency (F)
Left-sided Pr <= F 0.4412
Right-sided Pr >= F $\quad 0.8927$
Table Probability (P) 0.3339
Two-sided Pr <= P 0.6346
Sample Size = 67

Table of Number_home by C17
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ffffffff^ffffffff
0-2 , 3 , 24
, 4.55 , 36.36 ,
, 11.11 , 88.89
, $50.00,40.00$
$f f f f f f f f f f^{\wedge} f f f f f f f^{\wedge} f f f f f f f f$
>2 , 3 , 36 , 39
, $4.55,54.55,59.09$
, 7.69 , 92.31 ,
, 50.00 , 60.00 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
$\begin{array}{lrrr}\text { Total } & 6 & 60 & 66 \\ & 9.09 & 90.91 & 100.00\end{array}$
Statistics for Table of Number_home by C17


| Fisher's Exact Test |  |
| :--- | ---: |
| fffffffffffffffffffffffffffffffffff |  |
| Cell (1,1) Frequency (F) | 3 |
| Left-sided Pr <= F | 0.8190 |
| Right-sided Pr >= F | 0.4752 |
| Table Probability (P) | 0.2942 |
| Two-sided Pr <= P | 0.6823 |
| Sample Size = 66 |  |

Table of Number_home by C18
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff 'ffffffff^ffffffff
0-2 , 4 , 24
, $5.88,35.29,41.18$
, 14.29 , 85.71 ,
, 50.00 , 40.00 ,
fffffffff ${ }^{\prime} f f f f f f f f$ ^ffffffff
>2 , 4 , 36


Statistics for Table of Number_home by C18

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.2914 | 0.5893 |
| Likelihood Ratio Chi-Square | 1 | 0.2875 | 0.5918 |
| Continuity Adj. Chi-Square | 1 | 0.0248 | 0.8749 |
| Mantel-Haenszel Chi-Square | 1 | 0.2871 | 0.5921 |
| Phi Coefficient |  | 0.0655 |  |
| Contingency Coefficient |  | 0.0653 |  |
| Cramer's V |  | 0.0655 |  |

WARNING: $50 \%$ of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 4 Left-sided Pr <= F 0.8221 Right-sided Pr >= F 0.4311 Table Probability (P) 0.2531 Two-sided Pr <= P 0.7084

Sample Size $=68$

Table of Number_home by D19 Frequency, Percent , Row Pct , Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ffffffff^ffffffff
0-2 , 19 , 27
, $30.16,12.70,42.86$
, 70.37 , 29.63 ,
, 70.37 , 22.22
ffffffffff $f f f f f f f f^{\wedge} f f f f f f f f$


Statistics for Table of Number_home by D19

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 14.6049 | 0.0001 |
| Likelihood Ratio Chi-Square | 1 | 15.0921 | 0.0001 |
| Continuity Adj. Chi-Square | 1 | 12.7051 | 0.0004 |
| Mantel-Haenszel Chi-Square | 1 | 14.3731 | 0.0001 |
| Phi Coefficient |  | 0.4815 |  |
| Contingency Coefficient |  | 0.4338 |  |
| Cramer's V |  | 0.4815 |  |

Fisher's Exact Test $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell (1,1) Frequency (F) 19
Left-sided Pr <= F 1.0000 Right-sided Pr >= F $\quad 1.536 \mathrm{E}-04$ Table Probability (P) $1.373 \mathrm{E}-04$ Two-sided Pr <= P 2.444E-04

Sample Size $=63$

Statistics for Table of Number_home by D20 Statistic DF Value Prob fffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square $1 \quad 1.1429 \quad 0.2850$

| Likelihood Ratio Chi-Square | 1 | 1.1551 | 0.2825 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 1 0.6429 0.4227

| Mantel-Haenszel Chi-Square 1.1238 | 0.2891 |
| :--- | :--- | :--- | :--- | :--- |

Phi Coefficient -0.1380
Contingency Coefficient 0.1367
Cramer's V -0.1380
Fisher's Exact Test

| fffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 8 |
| Left-sided Pr <= F | 0.2119 |
| Right-sided Pr >= F | 0.9099 |
| Table Probability (P) | 0.1218 |
| Two-sided Pr <= P | 0.4231 |

Effective Sample Size $=60$ Frequency Missing = 1
Table of Number_home by D21

Statistics for Table of Number_home by D21
Statistic DF Value Prob fffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square $1 \quad 0.47470 .4908$ Likelihood Ratio Chi-Square 1 0.4841 0.4866 $\begin{array}{llll}\text { Continuity Adj. Chi-Square } & 1 & 0.1331 & 0.7153\end{array}$ Mantel-Haenszel Chi-Square 1 0.4673 0.4942

| Phi Coefficient | 0.0861 |
| :--- | ---: |
| Contingency Coefficient | 0.0858 |
| Cramer's V | 0.0861 |
| Fisher's Exact Test |  |
| ffffffffffffffffffffffffffffffffffff |  |
| Cell (1,1) Frequency (F) | 23 |
| Left-sided Pr <= F | 0.8444 |
| Right-sided Pr >= F | 0.3619 |
| Table Probability (P) | 0.2063 |
| Two-sided Pr <= P | 0.5374 |

Effective Sample Size $=64$
Frequency Missing = 1

Table of Number_home by D22
Frequency,
Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ’ffffffff^ffffffff^
0-2 , 4 , 17
, 7.55 , 32.08 , 39.62
, 19.05 , 80.95
, 50.00 , 37.78 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
$>2, \quad 4, \quad 28, \quad 32$
, $7.55,52.83,60.38$
, 12.50 , 87.50 ,
, 50.00, 62.22,
fffffffff $f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$

| Total | 8 | 45 | 53 |
| :--- | ---: | ---: | ---: |
|  | 15.09 | 84.91 | 100.00 |

Statistics for Table of Number_home by D22

| Statistic | DF | Value | Prob |
| :---: | :---: | :---: | :---: |
| $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |
| Chi-Square | 1 | 0.4241 | 0.5149 |
| Likelihood Ratio Chi-Square | 1 | 0.4166 | 0.5186 |
| Continuity Adj. Chi-Square | 1 | 0.0671 | 0.795 |
| Mantel-Haenszel Chi-Square | 1 | 0.4161 | 0.5189 |
| Phi Coefficient |  | 0.0895 |  |
| Contingency Coefficient |  | 0.0891 |  |
| Cramer's V 0.0895 |  |  |  |
| ARNING: $50 \%$ of the cells than 5. Chi-Squar |  | ted coun be a val | $\begin{aligned} & \text { less } \\ & \text { test. } \end{aligned}$ |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 4 Left-sided Pr <= F 0.8513 Right-sided Pr >= F 0.3915 Table Probability (P) 0.2428 Two-sided Pr <= P 0.6978

Effective Sample Size $=53$
Frequency Missing = 3

## Table of Number home by D23

Frequency,
Percent
Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff^ffffffff^ffffffff^
0-2 , 7 , 19 , 26
, 10.94 , 29.69 , 40.63
, 26.92 , 73.08 ,
, 53.85 , 37.25 ,

| fffffffff^ffffffff^ffffffff^ |  |  |  |
| :---: | :---: | :---: | :---: |
| >2 | 6 | 32 | 38 |
|  | 9.38 | , 50.00 | 59.38 |
|  | 15.79 | , 84.21 |  |
|  | 46.15 | 62.75 |  |
| $f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$ |  |  |  |
| Total | 13 | 51 | 64 |
|  | 20.31 | 79.69 | 100.00 |

Statistics for Table of Number_home by D23


Table of Number_home by D24
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
,gree
ffffffffff 'ffffffff ffffffff*
0-2 , 10,17 , 27
, $16.13,27.42,43.55$
, 37.04 , 62.96 ,
, 62.50 , 36.96 ,
fffffffff^ffffffff^ffffffff^
$>2$, $6, \quad 35$
, $9.68,46.77,56.45$
, 17.14 , 82.86 ,
, 37.50 , 63.04 ,
ffffffffff $f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
Total $16 \quad 46$

Statistics for Table of Number home by D24

| Statistics for Table of |  | Number_home by D24 |  |
| :--- | :---: | :---: | ---: |
| Statistic | DF | Value | Prob |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 3.1506 | 0.0759 |
| Likelihood Ratio Chi-Square | 1 | 3.1425 | 0.0763 |
| Continuity Adj. Chi-Square | 1 | 2.1973 | 0.1383 |
| Mantel-Haenszel Chi-Square | 1 | 3.0998 | 0.0783 |
| Phi Coefficient |  | 0.2254 |  |
| Contingency Coefficient |  | 0.2199 |  |
| Cramer's V |  | 0.2254 |  |

Fisher's Exact Test

| ffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 10 |
| Left-sided Pr <= F | 0.9807 |
| Right-sided Pr >= F | 0.0694 |
| Table Probability (P) | 0.0501 |
| Two-sided Pr <= P | 0.0885 |
| Sample Size = 62 |  |



Statistics for Table of Number_home by D25

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 2.7089 | 0.0998 |
| Likelihood Ratio Chi-Square | 1 | 2.6874 | 0.1011 |
| Continuity Adj. Chi-Square | 1 | 1.8848 | 0.1698 |
| Mantel-Haenszel Chi-Square | 1 | 2.6696 | 0.1023 |
| Phi Coefficient |  | 0.1981 |  |
| Contingency Coefficient |  | 0.1944 |  |
| Cramer's V |  | 0.1981 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency ( $F$ ) 11
Left-sided Pr <= F 0.9722

Right-sided Pr >= F 0.0853
Table Probability (P) 0.0575
Two-sided Pr <= P 0.1118
Sample Size = 69

Table of Years_in_house by A1
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
,gree
fffffffff^ffffffff^ffffffff^
$1-6$, 15,25 , 40
, 19.23 , 32.05 , 51.28
, 37.50 , 62.50 ,
, 50.00 , 52.08 ,
fffffffff^ffffffff^ffffffff^
>6 , 15 , 23 , 38
, 19.23 , 29.49 , 48.72
, 39.47 , 60.53,
, 50.00 , 47.92 ,
fffffffff^ffffffff^ffffffff^
$\begin{array}{llll}\text { Total } & 30 & 48 & 78\end{array}$
$38.46 \quad 61.54 \quad 100.00$

Statistics for Table of Years_in_house by A1

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0321 | 0.8579 |
| Likelihood Ratio Chi-Square | 1 | 0.0321 | 0.8579 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0317 | 0.8588 |
| Phi Coefficient |  | -0.0203 |  |
| Contingency Coefficient |  | 0.0203 |  |
| Cramer's V |  | -0.0203 |  |

isher's Exact Test

| ffffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 15 |
| Left-sided Pr <= F | 0.5212 |
| Right-sided Pr >= F | 0.6598 |
| Table Probability (P) | 0.1810 |
| Two-sided Pr <= P | 1.0000 |

Sample Size = 78

Table of Years_in_house by A2
Frequency, Percent , Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff^ffffffff^ffffffff^
$1-6$, $12, \quad 28$,
, 15.58 , 36.36 , 51.95
, 30.00 , 70.00 ,
, 42.86 , 57.14 ,
fffffffff ${ }^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
$>6 \quad, \quad 16, \quad 21$, 37
, 20.78 , $27.27,48.05$
, 43.24, 56.76,
, 57.14 , 42.86 , ffffffffff^ffffffff^ffffffff^ Total $28 \quad 49$
$36.36 \quad 63.64 \quad 100.00$
Statistics for Table of Years_in_house by A2

|  | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| Statistic | 1 | 1.4568 | 0.2274 |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.4599 | 0.2269 |
| Likelihood Ratio Chi-Square | 1 | 0.9407 | 0.3321 |
| Continuity Adj. Chi-Square | 1 | 1.4378 | 0.2305 |
| Mantel-Haenszel Chi-Square | 1 | -0.1375 |  |
| Phi Coefficient |  | 0.1363 |  |
| Contingency Coefficient |  | -0.1375 |  |
| Cramer's V |  |  |  |

Fisher's Exact Test
ffffffffffffffffffffffffffffffffff
Cell (1,1) Frequency (F) 12

Left-sided $\operatorname{Pr}<=\mathrm{F} \quad 0.1661$
Right-sided Pr >= F 0.9258
Table Probability (P) 0.0919
Two-sided Pr <= P 0.2463
Sample Size = 77

Table of Years_in_house by A3
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff ffffffff^ffffffff
1-6 , 19 , 39

Table of Years_in_house by A5
Frequency,
Percent ,
Row Pct ,
Col Pct , Disagree, Agree - , Total
, - Stron, Strongly,
, gly Disa, Agree ,

Statistics for Table of Years in house by A5

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0216 | 0.8832 |
| Likelihood Ratio Chi-Square | 1 | 0.0216 | 0.8831 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0213 | 0.8840 |
| Phi Coefficient |  | 0.0171 |  |
| Contingency Coefficient |  | 0.0171 |  |
| Cramer's V |  | 0.0171 |  |

Fisher's Exact Test
fffffffffffffffffffffffffffffffffff Cell (1,1) Frequency (F) 10 Left-sided Pr <= F 0.6607 Right-sided Pr >= F $\quad 0.5511$ Table Probability (P) 0.2118 Two-sided Pr <= P 1.0000

Effective Sample Size = 74
Frequency Missing = 1

Table of Years_in_house by B6 Frequency, Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff „ffffffff ${ }^{\prime}$ ffffffff^
1-6 , 16,25 , 41
, $20.78,32.47,53.25$
, 39.02 , 60.98 ,
, 48.48 , 56.82
ffffffffff $f f f f f f f f^{\wedge} f f f f f f f f$
$>6$, 17,19 , 36
, $22.08,24.68,46.75$
, 47.22, 52.78,
, 51.52 , 43.18 ,
ffffffffff fffffffff ffffffff^

| Total | 33 | 44 | 77 |
| :--- | ---: | ---: | ---: |
|  | 42.86 | 57.14 | 100.00 |

Statistics for Table of Years_in_house by B6
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 10.52600 .4683

| Likelihood Ratio Chi-Square | 1 | 0.5261 | 0.4682 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 1 0.2445 0.6209

| Mantel-Haenszel Chi-Square | 1 | 0.5192 |
| :--- | ---: | ---: |
| Phi Coefficient |  | -0.0827 |
| Contingency Coefficient |  | 0.0824 |
| Cramer's V |  | -0.0827 |

Fisher's Exact Test $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$

| Cell (1,1) Frequency (F) | 16 |
| :--- | ---: |
| Left-sided $\mathrm{Pr}<=\mathrm{F}$ | 0.3105 |
| Right-sided $\mathrm{Pr}>=\mathrm{F}$ | 0.8304 |
| Table Probability (P) | 0.1409 |
| Two-sided $\mathrm{Pr}<=\mathrm{P}$ | 0.4973 |

Sample Size $=77$


Statistics for Table of Years_in_house by B7

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0559 | 0.8130 |
| Likelihood Ratio Chi-Square | 1 | 0.0560 | 0.8129 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0551 | 0.8144 |
| Phi Coefficient |  | 0.0287 |  |
| Contingency Coefficient |  | 0.0287 |  |
| Cramer's V |  | 0.0287 |  |

Fisher's Exact Test
ffffffffffffffffffffffffffffffffffff Cell $(1,1)$ Frequency ( $F$ ) 15 Left-sided Pr <= F 0.6863 Right-sided Pr >= F 0.5068 Table Probability (P) 0.1931 Two-sided Pr <= P 1.0000

Sample Size = 68

Table of Years_in_house by B8
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree , , gree
fffffffff^ffffffff^ffffffff
1-6 , 11 , 25 , 36
, $15.71,35.71$, 51.43
, 30.56 , 69.44 ,
, 40.74 , 58.14 ,
fffffffff ${ }^{\prime} f f f f f f f f f^{\wedge} f f f f f f f f$
>6 , 16 , 18 , 34


Statistics for Table of Years_in_house by B8

|  | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| Statistic | 1 | 2.0100 | 0.1563 |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 2.0188 | 0.1554 |
| Likelihood Ratio Chi-Square | 1 | 1.3738 | 0.2412 |
| Continuity Adj. Chi-Square | 1 | 1.9812 | 0.1593 |
| Mantel-Haenszel Chi-Square |  | -0.1695 |  |
| Phi Coefficient |  | 0.1671 |  |
| Contingency Coefficient |  | -0.1695 |  |
| Cramer's V |  |  |  |


| Fisher's Exact Test |  |
| :--- | ---: |
| ffffffffffffffffffffffffffffffffff |  |
| Cell (1,1) Frequency (F) | 11 |
| Left-sided Pr <= F | 0.1205 |
| Right-sided Pr >= F | 0.9522 |
| Table Probability (P) | 0.0727 |
| Two-sided Pr <= P | 0.2198 |

Sample Size $=70$

Table of Years_in_house by B9
Frequency, Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,

1-6 , $13, \quad 26$, 39
, $17.33,34.67,52.00$
, 33.33 , 66.67,
, 50.00 , 53.06 ,
fffffffff^ffffffff^ffffffff
>6 , 13 , 23 , 36
, $17.33,30.67$, 48.00
, 36.11 , 63.89 ,
, 50.00 , 46.94 , ffffffffff^ffffffff^ffffffff^ Total $26 \quad 49$
$34.67 \quad 65.33 \quad 100.00$
Statistics for Table of Years_in_house by B9

| Statistics for Table of <br> Statistic <br> DF |  | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0638 | 0.8006 |
| Likelihood Ratio Chi-Square | 1 | 0.0638 | 0.8007 |
| Continuity Adj. Chi-Square | 1 | 0.0001 | 0.9923 |
| Mantel-Haenszel Chi-Square | 1 | 0.0629 | 0.8019 |
| Phi Coefficient |  | -0.0292 |  |
| Contingency Coefficient |  | 0.0291 |  |
| Cramer's V |  | -0.0292 |  |

Fisher's Exact Test
fffffffffffffffffffffffffffffffffff Cell (1,1) Frequency (F) 13 Left-sided Pr <= F 0.4957 Right-sided Pr >= F $\quad 0.6899$ Table Probability (P) 0.1856 Two-sided $\mathrm{Pr}<=\mathrm{P} \quad 0.8133$

Effective Sample Size = 75
Frequency Missing = 2

Table of Years_in_house by B10 Frequency,


Statistics for Table of Years_in_house by B10

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.9146 | 0.3389 |
| Likelihood Ratio Chi-Square | 1 | 0.9173 | 0.3382 |
| Continuity Adj. Chi-Square | 1 | 0.4623 | 0.4966 |
| Mantel-Haenszel Chi-Square | 1 | 0.9023 | 0.3422 |
| Phi Coefficient |  | -0.1112 |  |
| Contingency Coefficient |  | 0.1105 |  |
| Cramer's V |  | -0.1112 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 7 Left-sided Pr <= F 0.2485 Right-sided Pr >= F 0.8913 Table Probability (P) 0.1398 Two-sided Pr <= P 0.4124

Effective Sample Size = 74
Frequency Missing = 1

Table of Years_in_house by B11
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree , ,gree
ffffffffff fffffffff ffffffff^
1-6 $\quad 3,38$
, $6.67,44.00,50.67$
, 13.16 , 86.84 ,
, 35.71 , 54.10 ,
ffffffffff ffffffff^ffffffff^
>6 , 9 , 28 , 37
, $12.00,37.33,49.33$
, 24.32 , 75.68 ,
, 64.29 , 45.90 , ffffffffff ffffffff^ffffffff^ Total $14 \quad 61 \quad 75$
$18.67 \quad 81.33 \quad 100.00$

Statistics for Table of Years_in_house by B11
Statistic DF Vrob ffffffffffffffffffffffffffffffffffffffffffffffffffffff
Chi-Square 1
Likelihood Ratio Chi-Square 1 1.5559 0.2123

| Continuity Adj. Chi-Square | 1 | 0.8920 | 0.3449 |
| :--- | :--- | :--- | :--- | :--- |


| Mantel-Haenszel Chi-Square | 1 | 1.5191 | 0.2178 |
| :--- | :--- | :--- | :--- | :--- |

Phi Coefficient
-0.1433
Contingency Coefficient $\quad 0.1418$
Cramer's V
-0.1433

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency (F) 5
Left-sided Pr <= F 0.1727

| Right-sided Pr >= F | 0.9387 |
| :--- | :--- |
| Table Probability (P) | 0.1114 |

Two-sided Pr <= P 0.2486

Sample Size $=75$

Table of Years_in_house by B12
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff ffffffff^ffffffff
1-6 , 12 , 39
, $15.79,35.53,51.32$
, 30.77 , 69.23 ,
, 54.55 , 50.00 ,
ffffffffff $f f f f f f f f$ ^ffffffff
$>6 \quad 10, \quad 27, \quad 37$
, $13.16,35.53,48.68$
, 27.03 , 72.97 ,
, 45.45 , 50.00 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
Total $\quad 22 \quad 54$

Statistics for Table of Years_in_house by B12

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.1293 | 0.7192 |
| Likelihood Ratio Chi-Square | 1 | 0.1294 | 0.7190 |
| Continuity Adj. Chi-Square | 1 | 0.0113 | 0.9152 |
| Mantel-Haenszel Chi-Square | 1 | 0.1276 | 0.7210 |
| Phi Coefficient |  | 0.0412 |  |
| Contingency Coefficient |  | 0.0412 |  |
| Cramer's V |  | 0.0412 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 12 Left-sided Pr <= F 0.7294 Right-sided Pr >= F 0.4581 Table Probability (P) 0.1875 Two-sided Pr <= P 0.8028

Sample Size = 76

Table of Years_in_house by B13 Frequency, Percent Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
,gree
ffffffffff ffffffff ffffffff^
1-6 , 16 , 42
, 21.33 , 34.67 , 56.00
, 38.10 , 61.90 ,
, 50.00 , 60.47 ,
fffffffff $f f f f f f f f$ ^ffffffff
>6 , 16 , 17 , 33
, $21.33,22.67,44.00$
, 48.48, 51.52,
, 50.00 , 39.53 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$

| Total | 32 | 43 | 75 |
| :--- | ---: | ---: | ---: |
|  | 42.67 | 57.33 | 100.00 |

Statistics for Table of Years_in_house by B13
Statistic DF Value Prob fffffffffffffffffffffffffffffffffffffffffffffffffffffffff

| Chi-Square | 1 | 0.8155 | 0.3665 |
| :--- | :--- | :--- | :--- | :--- |

Likelihood Ratio Chi-Square 1 0.8151 0.3666

| Continuity Adj. Chi-Square | 1 | 0.4460 | 0.5042 |
| :--- | :--- | :--- | :--- |


| Mantel-Haenszel Chi-Square 10.8046 | 0.3697 |
| :--- | :--- | :--- | :--- |

Phi Coefficient
-0. 1043
Contingency Coefficient 0.1037
Cramer's V -0.1043

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$

| Cell (1,1) Frequency (F) | 16 |
| :--- | ---: |
| Left-sided Pr <= F | 0.2520 |
| Right-sided Pr >= F | 0.8725 |
| Table Probability (P) | 0.1245 |
| Two-sided Pr <= P | 0.4811 |
| Sample Size = 75 |  |

Table of Years_in_house by C14
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ’ffffffff ffffffff^
1-6 , 16 , 26 , 42
, $20.25,32.91,53.16$
, 38.10 , 61.90 ,
, 50.00 , 55.32 ,
fffffffff^ffffffff^ffffffff
$>6 \quad, \quad 16, \quad 21$, 37
, $20.25,26.58,46.84$
, 43.24 , 56.76 ,
, 50.00 , 44.68 ,
fffffffff^ffffffff^ffffffff

| Total | 32 | 47 | 79 |
| :--- | ---: | ---: | ---: |
|  | 40.51 | 59.49 | 100.00 |

Statistics for Table of Years_in_house by C14
Statistic DF Value Prob $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Chi-Square $1 \quad 0.21630 .6419$
$\begin{array}{lllll}\text { Likelihood Ratio Chi-Square } & 1 & 0.2163 & 0.6419\end{array}$

| Continuity Adj. Chi-Square | 1 | 0.0554 | 0.8139 |
| :--- | :--- | :--- | :--- | :--- |

Mantel-Haenszel Chi-Square 10.21360 .6440
Phi Coefficient
$-0.0523$
Contingency Coefficient 0.0523
Cramer's V
$-0.0523$

Fisher's Exact Test
ffffffffffffffffffffffffffffffffffff Cell $(1,1)$ Frequency (F) 16
Left-sided Pr <= F 0.4067
Right-sided Pr >= F 0.7564

Table Probability (P) 0.1631
Two-sided Pr <= P 0.6543

Sample Size = 79

Table of Years_in_house by C15
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree

| fffffffff^ffffffff(ffffffff |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 1-6 | 5 | 35 | 40 |
|  | 6.58 | 46.05 | 52.63 |
|  | 12.50 | 87.50 |  |
|  | 55.56 | 52.24 |  |
| $f f f f f f f f f{ }^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$ |  |  |  |
| >6 | 4 | 32 | 36 |
|  | 5.26 | , 42.11 | 47.37 |
|  | 11.11 | , 88.89 |  |
|  | 44.44 | 47.76 |  |
| $f f f f f f f f f^{\wedge} \mathrm{fffffffff}$ ^ffffffff^ |  |  |  |
| Total | 9 | 67 | 76 |
|  | 11.84 | 88.16 | 100.0 |

Statistics for Table of Years_in_house by C15 Statistic DF Value Prob fffffffffffffffffffffffffffffffffffffffffffffffffffffff
Chi-Square $100.0350 \quad 0.8516$
Likelihood Ratio Chi-Square 1 0.0351 0.8514

| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| :--- | :--- | :--- | :--- | :--- |

Mantel-Haenszel Chi-Square 1 0.0345 0.8525 Phi Coefficient 0.0215 Contingency Coefficient 0.0215 Cramer's V 0.0215

WARNING: $50 \%$ of the cells have expected counts less than 5 . Chi-Square may not be a valid test.

Fisher's Exact Test
fffffffffffffffffffffffffffffffffff
Cell $(1,1)$ Frequency (F) 5
Left-sided Pr <= F 0.7038
Right-sided Pr >= F 0.5682
Table Probability (P) 0.2721
Two-sided Pr <= P 1.0000
Sample Size = 76

Table of Years_in_house by C16
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ${ }^{\prime} f f f f f f f f^{\wedge}$ fffffffff
1-6 , 38 , 41
, $3.90,49.35,53.25$
, 7.32 , 92.68 ,
, 60.00 , 52.78 ,
$f f f f f f f f f^{\wedge} f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
>6 , 34 , 36
, $2.60,44.16,46.75$
, 5.56 , 94.44 ,
, 40.00 , 47.22
$f f f f f f f f f^{\wedge} f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
Total $\quad 5 \quad 72$
Statistics for Table of Years_in_house by C16
Statistic DF Value Prob
ffffffffffffffffffffffffffffffffffffffffffffffffffffff
Chi-Square $1 \quad 0.0980 \quad 0.7543$
Likelihood Ratio Chi-Square 1 0.0988 0.7533

| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| :--- | :--- | :--- | :--- |

Mantel-Haenszel Chi-Square 1 0.0967 0.7558
Phi Coefficient
0.0357

Contingency Coefficient 0.0356
Cramer's V 0.0357
WARNING: $50 \%$ of the cells have expected counts less than 5. Chi-Square may not be a valid test.


Statistics for Table of Years_in_house by C17
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 0.2586 $\begin{array}{lllll}\text { Likelihood Ratio Chi-Square } & 1 & 0.2587 & 0.6110\end{array}$ $\begin{array}{lllll}\text { Continuity Adj. Chi-Square } & 1 & 0.0124 & 0.9114\end{array}$ $\begin{array}{lllll}\text { Mantel-Haenszel Chi-Square } 1 & 0.2551 & 0.6135\end{array}$ Phi Coefficient
-0.0587 Contingency Coefficient 0.0586
Cramer's V
-0.0587
WARNING: 50\% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 3 Left-sided Pr <= F 0.4544 Right-sided Pr >= F 0.8168 Table Probability (P) 0.2712 Two-sided $\mathrm{Pr}<=\mathrm{P}$

Sample Size = 75

Table of Years_in_house by C18 Frequency,
Percent
Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ’ffffffff ffffffff^
1-6 , 4 , 37
, $5.13,47.44$,
, 9.76 , 90.24 ,
, 50.00 , 52.86 ,
$f f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$ ^
$>6 \quad, \quad 4,33$
, $5.13,42.31,47.44$
, 10.81 , 89.19 ,
, 50.00 , 47.14 ,
ffffffffff ${ }^{\wedge} f f f f f f f \wedge f f f f f f f f$

| Total | 8 | 70 | 78 |
| :--- | ---: | ---: | ---: |

$10.26 \quad 89.74 \quad 100.00$

Statistics for Table of Years_in_house by C18

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0235 | 0.8782 |
| Likelihood Ratio Chi-Square | 1 | 0.0235 | 0.8782 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0232 | 0.8789 |
| Phi Coefficient |  | -0.0174 |  |
| Contingency Coefficient |  | 0.0174 |  |
| Cramer's V |  | -0.0174 |  |

WARNING: $50 \%$ of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
ffffffffffffffffffffffffffffffffff
Cell (1,1) Frequency (F) 4

Left-sided Pr <= F 0.5844
Right-sided Pr >= F 0.7009
Table Probability (P) 0.2853
Two-sided Pr <= P 1.0000
Sample Size = 78

Table of Years_in_house by D19
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron, Strongly,
,gly Disa, Agree ,
, gree
fffffffff ffffffff^ffffffff
1-6 , 18 , 19 , 37
, $25.71,27.14,52.86$
, 48.65 , 51.35 ,
, $60.00,47.50$
ffffffffff $f f f f f f f f^{\wedge} f f f f f f f f f^{\wedge}$
$>6 \quad 12, \quad 21$, 33
, $17.14,30.00,47.14$
, 36.36 , 63.64 ,
, 40.00 , 52.50 ,
$f f f f f f f f f f^{\wedge} f f f f f f f f f^{\wedge} f f f f f f f f$ ^
Total $30 \quad 40 \quad 70$
$42.86 \quad 57.14 \quad 100.00$

Statistics for Table of Years_in_house by D19

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.0749 | 0.2998 |
| Likelihood Ratio Chi-Square | 1 | 1.0795 | 0.2988 |
| Continuity Adj. Chi-Square | 1 | 0.6318 | 0.4267 |
| Mantel-Haenszel Chi-Square | 1 | 1.0596 | 0.3033 |
| Phi Coefficient |  | 0.1239 |  |
| Contingency Coefficient |  | 0.1230 |  |
| Cramer's V |  | 0.1239 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency ( $F$ ) 18
Left-sided Pr <= F 0.8997
Right-sided Pr >= F 0.2136
Table Probability (P) 0.1133
Two-sided Pr <= P 0.3406

Sample Size = 70

Table of Years_in_house by D20
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,


Fisher's Exact Test ffffffffffffffffffffffffffffffffff Cell (1,1) Frequency (F) 28
Left-sided Pr <= F 0.2821
Right-sided Pr >= F 0.8765
Table Probability (P) 0.1586
Two-sided Pr <= P 0.5642

Effective Sample Size = 74
Frequency Missing = 1

Table of Years_in_house by D22
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,

1-6 , $5, \quad 36$
, $8.20,50.82,59.02$
, 13.89 , 86.11 ,
, 50.00 , 60.78 ,
fffffffff^ffffffff^ffffffff^
$>6$, $5,20,25$
, $8.20,32.79,40.98$
, 20.00 , 80.00 ,
, 50.00 , 39.22 ,
fffffffff^ffffffff^ffffffff^
Total $10 \quad 51 \quad 61$

Statistics for Table of Years in house by D22

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.4020 | 0.5261 |
| Likelihood Ratio Chi-Square | 1 | 0.3968 | 0.5287 |
| Continuity Adj. Chi-Square | 1 | 0.0798 | 0.7776 |
| Mantel-Haenszel Chi-Square | 1 | 0.3954 | 0.5295 |
| Phi Coefficient |  | -0.0812 |  |
| Contingency Coefficient |  | 0.0809 |  |
| Cramer's V |  | -0.0812 |  |

WARNING: $25 \%$ of the cells have expected counts less
than 5. Chi-Square may not be a valid test.
Fisher's Exact Test
fffffffffffffffffffffffffffffffffff
Cell (1,1) Frequency (F) 5
Left-sided Pr <= F 0.3843
Right-sided Pr >= F 0.8378
Table Probability (P) 0.2221
Two-sided Pr <= P 0.7268
Effective Sample Size $=61$ Frequency Missing = 3

Table of Years_in_house by D23
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
,gree
fffffffff 'ffffffff^ffffffff
1-6 , 7 , 34
, $9.46,45.95,55.41$
, 17.07 , 82.93 ,
, 50.00 , 56.67 ,
ffffffffff fffffffff ffffffff^
$>6 \quad, \quad 7, \quad 26$, 33
, $9.46,35.14,44.59$
, 21.21 , 78.79 ,

| 50.00, |  |  | 43.33, |
| :--- | ---: | ---: | ---: |
| fffffffff ${ }^{\prime}$ ffffffff^fffffffff |  |  |  |
| Total | 14 | 60 | 74 |
|  | 18.92 | 81.08 | 100.00 |

Statistics for Table of Years_in_house by D23

| Statistic |  | Value | ob |
| :---: | :---: | :---: | :---: |
| $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |
| Chi-Square | 1 | 0.2042 | 0.6514 |
| Likelihood Ratio Chi-Square | 1 | 0.2033 | 0.6521 |
| Continuity Adj. Chi-Square | 1 | 0.0235 | 0.8782 |
| Mantel-Haenszel Chi-Square | 1 | 0.2014 | 0.6536 |
| Phi Coefficient |  | -0.0525 |  |
| Contingency Coefficient |  | 0.0525 |  |
| Cramer's V |  | -0.0525 |  |

## Fisher's Exact Test

ffffffffffffffffffffffffffffffffffff Cell ( 1,1 ) Frequency (F) 7 Left-sided Pr <= F 0.4367 Right-sided Pr >= F 0.7739

Table Probability (P) 0.2106
Two-sided Pr <= P 0.7679

Sample Size = 74

Table of Years_in_house by D24 Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff 'fffffffffffffffff^
1-6 , 5 , 32
, $6.94,44.44,51.39$
, 13.51 , 86.49 ,
, 26.32 , 60.38 ,
fffffffff^ffffffff^ffffffff
$>6 \quad 14, \quad 21$, 35
, 19.44 , 29.17 , 48.61
, 40.00 , 60.00 ,
, 73.68 , 39.62 ,
ffffffffff fffffffff ffffffff^

| Total | 19 | 53 | 72 |
| :--- | ---: | ---: | ---: |
|  | 26.39 | 73.61 | 100.00 |

Statistics for Table of Years_in_house by D24
Statistic DF - Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square $1 \quad 6.49560 .0108$

| Likelihood Ratio Chi-Square | 1 | 6.6830 | 0.0097 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 1 5.2037 0.0225

| Mantel-Haenszel Chi-Square | 1 | 6.4054 | 0.0114 |
| :--- | :--- | :--- | :--- | :--- |

Phi Coefficient
-0. 3004
Contingency Coefficient 0.2877
Cramer's V
$-0.3004$
Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell (1,1) Frequency (F) 5
Left-sided Pr <= F 0.0107

| Right-sided Pr >= F | 0.9979 |
| :--- | :--- |
| Table Probability (P) | 0.0086 |

Two-sided $\operatorname{Pr}<=P$ P 0.0157
Sample Size = 72

Table of Years_in_house by D25
Frequency,
Percent
Row Pct ,


Statistics for Table of Years_in_house by D25

| Statistic | DF | Value | Prob |
| :--- | :---: | ---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0071 | 0.9331 |
| Likelihood Ratio Chi-Square | 1 | 0.0071 | 0.9331 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0070 | 0.9335 |
| Phi Coefficient |  | -0.0094 |  |
| Contingency Coefficient |  | 0.0094 |  |
| Cramer's V |  | -0.0094 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency (F) 11
Left-sided $\operatorname{Pr}<=\mathrm{F} \quad 0.5668$
Right-sided Pr >= F 0.6333
Table Probability (P) 0.2002
Two-sided Pr <= P 1.0000
Sample Size = 79

## Annexure F:

## Factor analysis



Eigenvalues of the Reduced Correlation Matrix: Total = 11.7124533 Average $=0.46849813$

| Reduced Correlation Matrix: | Total $=11.7124533$ | Average $=0.46849813$ |  |
| :---: | :---: | :---: | :---: |
| Eigenvalue | Difference | Proportion | Cumulative |
| 2.68477551 | 0.35305562 | 0.2292 | 0.2292 |
| 2.33171990 | 0.75778073 | 0.1991 | 0.4283 |
| 1.57393917 | 0.25896160 | 0.1344 | 0.5627 |
| 1.31497757 | 0.13570194 | 0.1123 | 0.6750 |
| 1.17927563 | 0.11356886 | 0.1007 | 0.7756 |
| 1.06570677 | 0.25287569 | 0.0910 | 0.8666 |
| 0.81283108 | 0.09096322 | 0.0694 | 0.9360 |
| 0.72186786 | 0.17286947 | 0.0616 | 0.9977 |
| 0.54899839 | 0.18691838 | 0.0469 | 1.0445 |
| 0.36208001 | 0.05504629 | 0.0309 | 1.0755 |
| 0.30703372 | 0.00615752 | 0.0262 | 1.1017 |
| 0.30087620 | 0.12358155 | 0.0257 | 1.1274 |
| 0.17729464 | 0.04155525 | 0.0151 | 1.1425 |
| 0.13573939 | 0.08707426 | 0.0116 | 1.1541 |
| 0.04866513 | 0.01044927 | 0.0042 | 1.1582 |
| 0.03821586 | 0.08970316 | 0.0033 | 1.1615 |
| -.05148730 | 0.05588462 | -0.0044 | 1.1571 |
| -.10737192 | 0.01462281 | -0.0092 | 1.1479 |
| -.12199472 | 0.08717227 | -0.0104 | 1.1375 |
| -.20916700 | 0.01555924 | -0.0179 | 1.1197 |
| -.22472624 | 0.03849721 | -0.0192 | 1.1005 |
| -.26322344 | 0.01058111 | -0.0225 | 1.0780 |
| -.27380455 | 0.04056001 | -0.0234 | 1.0546 |
| -.31436456 | 0.01103928 | -0.0268 | 1.0278 |
| -.32540383 |  | -0.0278 | 1.0000 |

6 factors will be retained by the NFACTOR criterion.

Initial Factor Method: Principal Factors


| C15 | C15 | 61 * | 34 | -16 |  | -35 | 0 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B7 | B7 | 53 * | -16 | 50 | * | 20 | 23 | -20 |
| B6 | B6 | 51 * | -4 | 4 |  | 23 | 17 | -49* |
| C16 | C16 | 48 * | 29 | 5 |  | -29 | -23 | 4 |
| A2 | A2 | 47 * | -8 | -33 |  | 33 | -30 | 25 |
| B8 | B8 | 47 * | -32 | 29 |  | 5 | 18 | -11 |
| A3 | A3 | 37 | -6 | -30 |  | -19 | 15 | 35 |
| D22 | D22 | 36 | 26 | -13 |  | 13 | 30 | -10 |
| D24 | D24 | 9 | 58 * | -19 |  | 5 | 29 | 16 |
| D23 | D23 | -26 | 51 * | -13 |  | -8 | 14 | -5 |
| D25 | D25 | -37 | 48* | -5 |  | 17 | 30 | 7 |
| C14 | C14 | 1 | 41 * | 16 |  | 31 | 9 | 8 |
| C18 | C18 | 4 | 37 | 1 |  | -2 | 2 | -3 |
| D20 | D20 | -1 | -27 | -15 |  | 12 | -8 | 26 |
| B9 | B9 | 9 | -30 | -5 |  | 4 | -9 | 5 |
| A5 | A5 | -28 | 20 | 57 | * | -16 | 16 | 19 |
| B12 | B12 | 5 | 7 | 42 | * | 10 | -17 | 18 |
| A1 | A1 | 22 | 15 | 0 |  | 52 * | -3 | 20 |
| D19 | D19 | -7 | 29 | -5 |  | 33 | 3 | -11 |
| D21 | D21 | -16 | -17 | -16 |  | 24 | 21 | 14 |
| B11 | B11 | -13 | 27 | 36 |  | 5 | -42* | 2 |
| B10 | B10 | 0 | 43 * | 21 |  | 14 | -44* | -6 |
| A4 | A4 | 14 | -13 | 42 | * | -24 | 33 | 42 * |
| B13 | B13 | 15 | -17 | 12 |  | 35 | -1 | 37 |
| Variance Explained by Each Factor |  |  |  |  |  |  |  |  |
|  | r1 | Factor2 | Fa |  |  |  | Factor5 | Factor6 |
| 2.68 | 755 | 2.3317199 | 1.57 |  |  |  | 1.1792756 | 1.0657068 |




Final Communality Estimates: Total $=10.150395$
$\begin{array}{rrrrrrr}\text { A1 } & \text { A2 } & \text { A3 } & \text { A4 } & \text { A5 } & \text { B6 } & \text { B7 } \\ 0.38869685 & 0.59635284 & 0.40911224 & 0.55777806 & 0.52678754 & 0.58196032 & 0.68527977 \\ \text { B8 } & \text { B9 } & \text { B10 } & \text { B11 } & \text { B12 } & \text { B13 } & \text { C14 }\end{array}$


| Inter-Factor Correlations |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Factor1 |  | Factor2 |  | Factor3 |  | Factor4 |  | Factor5 |  | Factor6 |  |
| Factor1 |  | 100 | * | 4 |  | 22 |  | -13 |  | 22 |  | -12 |  |
| Factor2 |  | 4 |  | 100 * |  | -7 |  | 15 |  | -7 |  | -8 |  |
| Factor3 |  | 22 |  | -7 |  | 100 * |  | 2 |  | 21 |  | 3 |  |
| Factor4 |  | -13 |  | 15 |  | 2 |  | 100 | * | -13 |  | 6 |  |
| Factor5 |  | 22 |  | -7 |  | 21 |  | -13 |  | 100 * |  | -8 |  |
| Factor6 |  | -12 |  | -8 |  | 3 |  | 6 |  | -8 |  | 100 | * |
|  |  | Rotated Factor Pattern Factor1 Factor2 |  |  |  | (Standardized Factor3 |  | Regression Coefficients) |  |  |  | Factor6 |  |
| C15 | C15 | 78 | * | 9 |  | 4 |  | -10 |  | -11 |  | 1 |  |
| C17 | C17 | 73 | * | 9 |  | 8 |  | 15 |  | 4 |  | 5 |  |
| C16 | C16 | 68 | * | -5 |  | -1 |  | 20 |  | -7 |  | 4 |  |
| D21 | D21 | -34 |  | 9 |  | -4 |  | -26 |  | 23 |  | 0 |  |
| D25 | D25 | -21 |  | 66 | * | -14 |  | -6 |  | 0 |  | 8 |  |
| D24 | D24 | 23 |  | 64 | * | -9 |  | -16 |  | 8 |  | 7 |  |
| D23 | D23 | 6 |  | 50 | * | -20 |  | -1 |  | -21 |  | -3 |  |
| C14 | C14 | -4 |  | 46 | * | 10 |  | 20 |  | 20 |  | 8 |  |
| D22 | D22 | 18 |  | 38 |  | 31 |  | -23 |  | 4 |  | -8 |  |
| D19 | D19 | -15 |  | 35 |  | 9 |  | 11 |  | 11 |  | -20 |  |
| C18 | C18 | 19 |  | 29 |  | -1 |  | 10 |  | -7 |  | -1 |  |
| B9 | B9 | -6 |  | -28 |  | 1 |  | -6 |  | 13 |  | -5 |  |
| B7 | B7 | 0 |  | -6 |  | 78 | * | 5 |  | 4 |  | 20 |  |
| B6 | B6 | 4 |  | 4 |  | 71 | * | -10 |  | -10 |  | -30 |  |
| B8 | B8 | 4 |  | -23 |  | 56 | * | -10 |  | 3 |  | 17 |  |
| B11 | B11 | 9 |  | -2 |  | -13 |  | 63 |  | 3 |  | 5 |  |
| B10 | B10 | 19 |  | 12 |  | -8 |  | 62 |  | 7 |  | -13 |  |
| B12 | B12 | 4 |  | -4 |  | 4 |  | 40 |  | 19 |  | 27 |  |
| A3 | A3 | 38 |  | -3 |  | -15 |  | -38 |  | 20 |  | 14 |  |
| A2 | A2 | 23 |  | -15 |  | -8 |  | 2 |  | 60 | * | -29 |  |
| A1 | A1 | -7 |  | 24 |  | 12 |  | 13 |  | 56 | * | -6 |  |
| B13 | B13 | -14 |  | -4 |  | 3 |  | 5 |  | 55 | * | 19 |  |
| D20 | D20 | -11 |  | -20 |  | -18 |  | -10 |  | 32 |  | 0 |  |
| A4 | A4 | 13 |  | -3 |  | 6 |  | -14 |  | 6 |  | 73 |  |
| A5 | A5 | -6 |  | 19 |  | -2 |  | 25 |  | -15 |  | 59 |  |


| Reference Axis Correlations |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Factor1 | Factor2 | Factor3 | Factor4 | Factor5 | Factor6 |
| Factor1 | $100 *$ | -8 | -20 | 13 | -16 | 11 |
| Factor2 | -8 | $100 *$ | 8 | -16 | 5 | 8 |
| Factor3 | -20 | 8 | -8 | -18 | -6 |  |
| Factor4 | 13 | -16 | -8 | $100 *$ | 11 | -4 |
| Factor5 | -16 | 5 | -18 | 11 | $100 *$ | 6 |
| Factor6 | 11 | 8 | -6 | -4 | 6 | $100 *$ |




| Final Communality Estimates: Total $=10.150395$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A1 | A2 | A3 | A4 | A5 | B6 | B7 |
| 0.38869685 | 0.59635284 | 0.40911224 | 0.55777806 | 0.52678754 | 0.58196032 | 0.68527977 |
| B8 | B9 | B10 | B11 | B12 | B13 | C14 |
| 0.45191389 | 0.11426121 | 0.44565775 | 0.39751167 | 0.25960130 | 0.32488572 | 0.30309800 |
| C15 | C16 | C17 | C18 | D19 | D20 | D21 |
| 0.63445632 | 0.44738740 | 0.58956907 | 0.13825322 | 0.21240654 | 0.18371507 | 0.19818182 |
|  |  |  | D23 | D24 | D25 |  |
|  | 0.33524 | 0.379 | 22450.4 | 69678 | 0276277 |  |

Scoring Coefficients Estimated by Regression

| Factor1 |  | Squared | le Correla | 3 of the | ables with | Factor ctor5 | Factor6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.83928013 |  | 0.79130 | 0.805 |  | 84 | 45917 | 0.74557319 |
| Standardized Scoring Coefficients |  |  |  |  |  |  |  |
|  |  | Factor1 | Factor2 | Factor3 | Factor4 | Factor5 | Factor6 |
| C15 | C15 | 0.36952 | 0.03424 | 0.00070 | -0.13536 | -0.05770 | -0.04379 |
| C17 | C17 | 0.29165 | 0.05488 | 0.07686 | 0.08496 | 0.06453 | 0.02670 |
| C16 | C16 | 0.19795 | -0.04766 | -0.01564 | 0.08878 | -0.02571 | 0.00808 |
| D21 | D21 | -0.05860 | 0.02616 | -0.00939 | -0.08147 | 0.09045 | 0.01391 |
| D25 | D25 | -0.09626 | 0.28924 | -0.06312 | -0.01891 | 0.02271 | 0.03733 |
| D24 | D24 | 0.08094 | 0.26583 | -0.02536 | -0.08039 | 0.03473 | 0.01054 |
| D23 | D23 | 0.02829 | 0.18921 | -0.04723 | -0.00033 | -0.11566 | -0.01097 |
| C14 | C14 | -0.02444 | 0.17044 | 0.06490 | 0.08691 | 0.08790 | 0.01480 |
| D22 | D22 | 0.03139 | 0.15666 | 0.12286 | -0.09482 | 0.06476 | -0.03658 |
| D19 | D19 | -0.03362 | 0.10738 | 0.02589 | 0.04435 | 0.03860 | -0.07886 |
| C18 | C18 | 0.03703 | 0.09263 | -0.02080 | 0.03094 | -0.02795 | -0.02212 |
| B9 | B9 | 0.00145 | -0.06689 | 0.00941 | -0.01607 | 0.06026 | -0.00729 |
| B7 | B7 | -0.00998 | -0.01458 | 0.46541 | 0.09794 | 0.05587 | 0.15749 |
| B6 | B6 | 0.03263 | 0.05524 | 0.30786 | -0.03981 | -0.04471 | -0.21500 |
| B8 | B8 | 0.01607 | -0.10051 | 0.17702 | -0.04953 | 0.01524 | 0.08797 |
| B11 | B11 | -0.00515 | -0.01629 | -0.04727 | 0.28108 | -0.01179 | 0.02584 |
| B10 | B10 | 0.03019 | 0.04785 | 0.00086 | 0.32954 | 0.02850 | -0.07422 |
| B12 | B12 | 0.01769 | -0.00875 | 0.01959 | 0.14216 | 0.06582 | 0.09646 |
| A3 | A3 | 0.14529 | -0.03707 | -0.07595 | -0.24395 | 0.10837 | 0.07191 |
| A2 | A2 | 0.13637 | -0.04548 | -0.01692 | -0.00799 | 0.40300 | -0.17136 |
| A1 | A1 | -0.01324 | 0.08253 | 0.04609 | 0.02661 | 0.26728 | -0.02564 |
| B13 | B13 | -0.03588 | -0.01094 | 0.01510 | -0.00184 | 0.21130 | 0.07704 |
| D20 | D20 | -0.02416 | -0.05805 | -0.04525 | -0.03042 | 0.13553 | 0.01389 |
| A4 | A4 | 0.02220 | -0.05090 | -0.00318 | -0.09397 | 0.08891 | 0.41986 |
| A5 | A5 | -0.03085 | 0.10399 | 0.00614 | 0.15101 | -0.09834 | 0.3150 |

## Cronbach Alpha Coefficients for all the items in the Questionnaire

| Simple Statistics |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | N | Mean | Std Dev | Sum | Minimum | Maximum | Label |
| A1 | 71 | 3.43662 | 1.38081 | 244.00000 | 1.00000 | 5.00000 | A1 |
| A2 | 71 | 3.50704 | 1.47235 | 249.00000 | 1.00000 | 5.00000 | A2 |
| A3 | 71 | 3.22535 | 1.44615 | 229.00000 | 1.00000 | 5.00000 | A3 |
| A4 | 71 | 3.43662 | 1.32807 | 244.00000 | 1.00000 | 5.00000 | A4 |
| A5 | 71 | 3.94366 | 1.27489 | 280.00000 | 1.00000 | 5.00000 | A5 |
| B6 | 71 | 2.98592 | 1.33623 | 212.00000 | 1.00000 | 5.00000 | B6 |
| B7 | 71 | 3.18310 | 1.44726 | 226.00000 | 1.00000 | 5.00000 | B7 |
| B8 | 71 | 3.33803 | 1.40350 | 237.00000 | 1.00000 | 5.00000 | B8 |
| B9 | 71 | 3.40845 | 1.27142 | 242.00000 | 1.00000 | 5.00000 | B9 |
| B10 | 71 | 3.70423 | 1.17588 | 263.00000 | 1.00000 | 5.00000 | B10 |
| B11 | 71 | 3.94366 | 1.10696 | 280.00000 | 1.00000 | 5.00000 | B11 |
| B12 | 71 | 3.70423 | 1.50612 | 263.00000 | 1.00000 | 5.00000 | B12 |
| B13 | 71 | 3.21127 | 1.39300 | 228.00000 | 1.00000 | 5.00000 | B13 |
| C14 | 71 | 3.47887 | 1.39242 | 247.00000 | 1.00000 | 5.00000 | C14 |
| C15 | 71 | 4.22535 | 1.11095 | 300.00000 | 1.00000 | 5.00000 | C15 |
| C16 | 71 | 4.47887 | 0.82565 | 318.00000 | 2.00000 | 5.00000 | C16 |
| C17 | 71 | 4.43662 | 0.89014 | 315.00000 | 1.00000 | 5.00000 | C17 |
| C18 | 71 | 4.42254 | 0.93598 | 314.00000 | 2.00000 | 5.00000 | C18 |
| D19 | 71 | 3.23944 | 1.17674 | 230.00000 | 1.00000 | 5.00000 | D19 |
| D20 | 71 | 3.00000 | 1.32017 | 213.00000 | 1.00000 | 5.00000 | D20 |
| D21n | 71 | 3.88732 | 1.34748 | 276.00000 | 1.00000 | 5.00000 |  |
| D22 | 71 | 3.69014 | 1.02248 | 262.00000 | 1.00000 | 5.00000 | D22 |
| D23 | 71 | 3.92958 | 1.09966 | 279.00000 | 1.00000 | 5.00000 | D23 |
| D24 | 71 | 3.69014 | 1.19034 | 262.00000 | 1.00000 | 5.00000 | D24 |
| D25 | 71 | 3.85915 | 1.25693 | 274.00000 | 1.00000 | 5.00000 | D25 |


Variable
A2
A3
B6
B7
B8
C15
C16
C17
D22

Simple Statistics

| Std Dev | Sum | Minimum | Maximum | Label |
| :---: | :---: | :---: | :---: | :---: |
| 1.48333 | 271.00000 | 1.00000 | 5.00000 | A2 |
| 1.41288 | 253.00000 | 1.00000 | 5.00000 | A3 |
| 1.33950 | 238.00000 | 1.00000 | 5.00000 | B6 |
| 1.44966 | 253.00000 | 1.00000 | 5.00000 | B7 |
| 1.40949 | 265.00000 | 1.00000 | 5.00000 | B8 |
| 1.08381 | 329.00000 | 1.00000 | 5.00000 | C15 |
| 0.80497 | 347.00000 | 2.00000 | 5.00000 | C16 |
| 1.02481 | 336.00000 | 1.00000 | 5.00000 | C17 |
| 1.05456 | 284.00000 | 1.00000 | 5.00000 | D22 |

## ffffffffffffffffffffffffffff <br> Raw <br> 0.670054 <br> Standardized <br> 0.681661

Cronbach Coefficient Alpha with Deleted Variable Raw Variables Standardized Variables

| Deleted <br> Variable | Correlation <br> with Total | Alpha | Correlation <br> with Total | Alpha | Label |
| :--- | :---: | :---: | :---: | :---: | :---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |  |
| A2 | 0.280122 | 0.661494 | 0.279530 | 0.671019 | A2 |
| A3 | 0.273695 | 0.661343 | 0.272811 | 0.672372 | A3 |
| B6 | 0.444761 | 0.619892 | 0.422491 | 0.641336 | B6 |
| B7 | 0.401237 | 0.630218 | 0.375679 | 0.651248 | B7 |
| B8 | 0.410326 | 0.627884 | 0.365792 | 0.653318 | B8 |
| C15 | 0.464049 | 0.621531 | 0.524585 | 0.619054 | C15 |
| C16 | 0.358714 | 0.646954 | 0.389101 | 0.648426 | C16 |
| C17 | 0.274892 | 0.656979 | 0.311592 | 0.664514 | C17 |
| D22 | 0.260145 | 0.659585 | 0.265690 | 0.673801 | D22 |

## Descriptive statistics: Frequency tables

| Type_ <br> dwelling | Frequency | Percent | Cumulative <br> Frequency | Cumulative <br> Percent |
| :--- | :---: | :---: | :---: | :---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |

Chi-Square Test
for Equal Proportions
ffffffffffffffffffffff
Chi-Square 0.6250
DF 2
Pr > ChiSq 0.7316
Sample Size = 80

| Gender | Frequency | Percent | Cumulative <br> Frequency | Cumulative <br> Percent |
| :--- | :---: | :---: | :---: | :---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Male | 39 | 48.75 | 39 | 48.75 |
| Female | 41 | 51.25 | 80 | 100.00 |

Chi-Square Test
for Equal Proportions $f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 0.0500 DF 1 Pr > ChiSq 0.8231

Sample Size = 80


| Number_home | Frequency | Percent <br> ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff <br> Frequency | Cumulative <br> Percent |  |
| :---: | :---: | :---: | :---: | :---: |
| 0 | 10 | 12.50 | 10 | 12.50 |
| 1 | 16 | 20.00 | 26 | 32.50 |
| 2 | 13 | 16.25 | 39 | 48.75 |
| 3 | 9 | 11.25 | 48 | 60.00 |
| 4 | 10 | 12.50 | 58 | 72.50 |
| 5 | 3 | 3.75 | 61 | 76.25 |
| 6 | 7 | 8.75 | 68 | 85.00 |
| 7 | 3 | 3.75 | 71 | 88.75 |
| 8 | 2 | 2.50 | 73 | 91.25 |
| 9 | 1 | 1.25 | 74 | 92.50 |




Cumulative Cumulative

| B7 | Frequency | Percent | Frequency | Percent |
| :--- | :---: | :---: | :---: | :---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Strongly Disagree | 13 | 16.25 | 13 | 16.25 |
| Disagree | 13 | 16.25 | 26 | 32.50 |
| Undecided | 12 | 15.00 | 38 | 47.50 |
| Agree | 21 | 26.25 | 59 | 73.75 |
| Strongly Agree | 21 | 26.25 | 80 | 100.00 |

Chi-Square Test
for Equal Proportions $f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 5.2500 DF 2500 Pr > ChiSq 0.2626
Sample Size = 80


|  | B9 | Frequency | Percent | Cumulative <br> Frequency |
| :--- | ---: | ---: | ---: | ---: |
| Cffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |

Chi-Square Test
for Equal Proportions $f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 50.2000
DF 5

Pr > ChiSq <. 0001
Sample Size $=80$

|  |  |  | Cumulative | Cumulative |
| :--- | :---: | :---: | :---: | :---: |
| B10 | Frequency | Percent | Frequency | Percent |


| Strongly Disagree | 1 | 1.25 | 1 | 1.25 |
| :--- | ---: | ---: | ---: | ---: |
| Disagree | 13 | 16.25 | 14 | 17.50 |
| Undecided | 5 | 6.25 | 19 | 23.75 |
| Agree | 33 | 41.25 | 52 | 65.00 |
| Strongly Agree | 28 | 35.00 | 80 | 100.00 |


|  | B12 | Frequency | Percent | Cumulative <br> Frequency |
| :--- | :---: | :---: | :---: | :---: |
| Cumulative |  |  |  |  |
| Percent |  |  |  |  |

Chi-Square Test
for Equal Proportions $f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 33.5000 DF Pr > ChiSq <.0001

Sample Size $=80$

|  | B13 | Frequency | Percent | Cumulative <br> Frequency |
| :--- | :---: | :---: | :---: | :---: |
| Cumulative |  |  |  |  |




| $\begin{gathered} \text { Pr >ChiSq } \\ \text { Sample Size }=80 \end{gathered}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| D20 | Frequency | Percent | Cumulative Frequency | Cumulative Percent |
| $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| 0 | 1 | 1.25 | 1 | 1.25 |
| Strongly Disagree | 12 | 15.00 | 13 | 16.25 |
| Disagree | 18 | 22.50 | 31 | 38.75 |
| Undecided | 10 | 12.50 | 41 | 51.25 |
| Agree | 30 | 37.50 | 71 | 88.75 |
| Strongly Agree | 9 | 11.25 | 80 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 36.2500 |  |  |  |  |
| DF |  |  |  |  |
| Pr > ChiSq <.0001 |  |  |  |  |
| Sample Size $=80$ |  |  |  |  |
| D21 | Frequency | Percent | Cumulative Frequency | Cumulative Percent |
| $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| 0 | 1 | 1.25 | 1 | 1.25 |
| Strongly Disagree | 36 | 45.00 | 37 | 46.25 |
| Disagree | 23 | 28.75 | 60 | 75.00 |
| Undecided | 5 | 6.25 | 65 | 81.25 |
| Agree | 7 | 8.75 | 72 | 90.00 |
| Strongly Agree | 8 | 10.00 | 80 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| ffffffffffffffffffffff |  |  |  |  |
| Chi-Square 67.3000 |  |  |  |  |
| DF 5 |  |  |  |  |
| Pr > ChiSq <.0001 |  |  |  |  |
| Sample Size $=80$ |  |  |  |  |


|  | D22 | Frequency | Percent | Cumulative <br> Frequency |
| :--- | :---: | :---: | :---: | :---: |
| Cumulative |  |  |  |  |


|  |  |  | Cumulative | Cumulative |
| :--- | :---: | :---: | :---: | :---: |
| D23 | Frequency | Percent | Frequency | Percent |



Descriptive statistics: Uni-variate with means \& standard deviations where appropriate


|  | Quantiles ( | (Definition 5) |  |
| :---: | :---: | :---: | :---: |
|  | Quantile | Estimate |  |
|  | 100\% Max | 17.0 |  |
|  | 99\% | 17.0 |  |
|  | 95\% | 15.0 |  |
|  | 90\% | 13.0 |  |
|  | 75\% Q3 | 10.0 |  |
|  | 50\% Median | n 6.0 |  |
|  | 25\% Q1 | 4.0 |  |
|  | 10\% | 2.0 |  |
|  | 5\% | 1.5 |  |
|  | 1\% | 1.0 |  |
|  | 0\% Min | 1.0 |  |
|  | Variable: Number | r_home (Number_home) |  |
| N | 80 | Sum Weights | 80 |
| Mean | 3.5125 | Sum Observations | 281 |
| Std Deviation | 3.19807596 | Variance | 10.2276899 |
| Skewness | 1.24789384 | Kurtosis | 1.15882878 |
| Uncorrected SS | S 1795 | Corrected SS | 807.9875 |
| Coeff Variation | on 91.048426 | Std Error Mean | 0.35755576 |

Basic Statistical Measures

| Basic |  |  |  |
| :--- | ---: | :--- | ---: |
| Statistical Measures |  |  |  |
| Location | Variability |  |  |
| Mean | 3.512500 | Std Deviation | 3.19808 |
| Median | 3.000000 | Variance | 10.22769 |
| Mode | 1.000000 | Range | 13.00000 |
|  |  | Interquartile Range | 4.00000 |


| Quantiles | (Definition 5) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 13.0 |
| $99 \%$ | 13.0 |
| $95 \%$ | 10.5 |
| $90 \%$ | 8.0 |
| $75 \%$ Q3 | 5.0 |
| $50 \%$ Median | 3.0 |
| $25 \%$ Q1 | 1.0 |
| $10 \%$ | 0.0 |
| $5 \%$ | 0.0 |
| $1 \%$ | 0.0 |
| $0 \%$ Min | 0.0 |

Variable: Years_in_house (Years_in_house)

| N | 80 | Sum Weights | 80 |
| :--- | ---: | :--- | ---: |
| Mean | 7.3125 | Sum Observations | 585 |
| Std Deviation | 4.18131392 | Variance | 17.4833861 |
| Skewness | 0.75756483 | Kurtosis | -0.4972311 |
| Uncorrected SS | 5659 | Corrected SS | 1381.1875 |
| Coeff Variation | 57.1803613 | Std Error Mean | 0.46748511 |


| Basic Statistical Measures |  |  |  |
| :--- | :---: | :---: | :---: |
| Location | Variability |  |  |
| Mean $\quad 7.312500$ | Std Deviation | 4.18131 |  |




|  | Variable: A2 (A2) |  |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.5 | Sum Observations | 280 |
| Std Deviation | 1.48409287 | Variance | 2.20253165 |
| Skewness | -0.4646981 | Kurtosis | -1.3437698 |
| Uncorrected SS | 1154 | Corrected SS | 174 |
| Coeff Variation | 42.4026534 | Std Error Mean | 0.16592663 |

Coeff Variation
42.4026534 Std Error Mean
0.16592663




|  | Variable: | A5 (A5) |  |
| :---: | :---: | :---: | :---: |
| N | 79 | Sum Weights | 79 |
| Mean | 3.87341772 | Sum Observations | 306 |
| Std Deviation | n 1.26457745 | Variance | 1.59915612 |
| Skewness | -0.8096147 | Kurtosis | -0.6989694 |
| Uncorrected SS | SS 1310 | Corrected SS | 124.734177 |
| Coeff Variation 3 | ion 32.6475877 | Std Error Mean | 0.14227608 |
| Basic Statistical Measures |  |  |  |
| Location Variability |  |  |  |
| Mean | 3.873418 Std D | viation | 1.26458 |
| Median | 4.000000 Varia |  | 1.59916 |
| Mode | 5.000000 Range |  | 4.00000 |
|  | Inter | uartile Range | 2.00000 |
|  | Quantiles (D | finition 5) |  |
|  | Quantile | Estimate |  |
|  | 100\% Max | 5 |  |
|  | 99\% | 5 |  |
|  | 95\% | 5 |  |
|  | 90\% | 5 |  |
|  | 75\% Q3 | 5 |  |
|  | 50\% Median | 4 |  |
|  | 25\% Q1 | 3 |  |
|  | 10\% | 2 |  |
|  | 5\% | 2 |  |
|  | 1\% | 1 |  |
|  | 0\% Min | 1 |  |


|  | Variable: | B6 (B6) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.1 | Sum Observations | 248 |
| Std Deviation | 1.32741302 | Variance | 1.76202532 |
| Skewness | -0.2877498 | Kurtosis | -1.3385967 |
| Uncorrected SS | 908 | Corrected SS | 139.2 |
| Coeff Variation | 42.8197747 | Std Error Mean | 0.14840929 |




Note: The mode displayed is the smallest of 2 modes with a count of 21.

| Quantiles | (Definition 5 ) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5 |
| $99 \%$ | 5 |
| $95 \%$ | 5 |
| $90 \%$ | 5 |
| $75 \%$ Q3 | 5 |
| $50 \%$ Median | 4 |
| $25 \%$ Q1 | 2 |
| $10 \%$ | 1 |
| $5 \%$ | 1 |
| $1 \%$ | 1 |
| $0 \%$ Min | 1 |


|  | Variable: | B8 (B8) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.4125 | Sum Observations | 273 |
| Std Deviation | 1.42929344 | Variance | 2.04287975 |
| Skewness | -0.3127218 | Kurtosis | -1.3372671 |
| Uncorrected SS | 1093 | Corrected SS | 161.3875 |
| Coeff Variation | 41.8840569 | Std Error Mean | 0.15979986 |

Basic Statistical Measures

| Location |  | Variability |  |
| :--- | :--- | :--- | :--- |
| Mean | 3.412500 | Std Deviation | 1.42929 |
| Median | 4.000000 | Variance | 2.04288 |
| Mode | 5.000000 | Range | 4.00000 |
|  |  | Interquartile Range | 3.00000 |


| Quantiles | (Definition 5 ) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5 |
| $99 \%$ | 5 |
| $95 \%$ | 5 |
| $90 \%$ | 5 |
| $75 \%$ Q3 | 5 |
| $50 \%$ Median | 4 |
| $25 \%$ Q1 | 2 |
| $10 \%$ | 1 |
| $5 \%$ | 1 |
| $1 \%$ | 1 |
| $0 \%$ Min | 1 |


|  | Variable: | B9 (B9) |  |
| :---: | :---: | :---: | :---: |
| N | 78 | Sum Weights | 78 |
| Mean | 3.42307692 | Sum Observations | 267 |
| Std Deviation | n 1.3144475 | Variance | 1.72777223 |
| Skewness | -0.479865 | Kurtosis | -1.1076465 |
| Uncorrected | SS 1047 | Corrected SS | 133.038462 |
| Coeff Variation 38 | ion 38.3995899 | Std Error Mean | 0.14883187 |
| Location Basic Statistical Measures |  |  |  |
|  |  |  |  |
| Mean | 3.423077 Std D | viation | 1.31445 |
| Median | 4.000000 Varia |  | 1.72777 |
| Mode | 4.000000 Range |  | 4.00000 |
|  | Inter | uartile Range | 2.00000 |
|  | Quantiles (D | finition 5) |  |
|  | Quantile | Estimate |  |
|  | 100\% Max | 5 |  |
|  | 99\% | 5 |  |
|  | 95\% | 5 |  |
|  | 90\% | 5 |  |
|  | 75\% Q3 | 4 |  |
|  | 50\% Median | 4 |  |
|  | 25\% Q1 | 2 |  |
|  | 10\% | 2 |  |
|  | 5\% | 1 |  |
|  | 1\% | 1 |  |
|  | 0\% Min | 1 |  |


|  | Variable: | B10 (B10) |  |
| :--- | ---: | :--- | ---: |
| N | 79 | Sum Weights | 79 |
| Mean | 3.65822785 | Sum Observations | 289 |
| Std Deviation | 1.19706988 | Variance | 1.43297631 |
| Skewness | -0.9143681 | Kurtosis | -0.1347798 |
| Uncorrected SS | 1169 | Corrected SS | 111.772152 |

Basic Statistical Measures

| Basic Statistical Measures |  |  |  |
| :--- | :--- | :--- | :--- |
| Location |  | Variability |  |
| Mean | 3.658228 | Std Deviation | 1.19707 |
| Median | 4.000000 | Variance | 1.43298 |
| Mode | 4.000000 | Range | 4.00000 |
|  |  | Interquartile Range | 1.00000 |


| Quantiles | (Definition 5 ) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5 |
| $99 \%$ | 5 |
| $95 \%$ | 5 |
| $90 \%$ | 5 |
| $75 \%$ Q3 | 4 |
| $50 \%$ Median | 4 |
| $25 \%$ Q1 | 3 |
| $10 \%$ | 2 |
| $5 \%$ | 1 |
| $1 \%$ | 1 |
| $0 \%$ Min | 1 |


|  | Variable: | B11 (B11) |  |
| :---: | :---: | :---: | :---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.925 | Sum Observations | 314 |
| Std Deviatio | n 1.08819907 | Variance | 1.18417722 |
| Skewness | -0.8756902 | Kurtosis | -0.2660479 |
| Uncorrected | SS 1326 | Corrected SS | 93.55 |
| Coeff Variation | ion 27.7248171 | Std Error Mean | 0.12166435 |
| Location Basic Statistical Measures |  |  |  |
|  |  |  |  |
| Mean | 3.925000 Std D | eviation | 1.08820 |
| Median | 4.000000 Varia | nce | 1.18418 |
| Mode | 4.000000 Range |  | 4.00000 |
|  | Inter | quartile Range | 1.00000 |
|  | Quantiles (D | afinition 5) |  |
|  | Quantile | Estimate |  |
|  | 100\% Max | 5 |  |
|  | 99\% | 5 |  |
|  | 95\% | 5 |  |
|  | 90\% | 5 |  |
|  | 75\% Q3 | 5 |  |
|  | 50\% Median | 4 |  |
|  | 25\% Q1 | 4 |  |
|  | 10\% | 2 |  |
|  | 5\% | 2 |  |
|  | 1\% | 1 |  |
|  | 0\% Min | 1 |  |


|  | Variable: | B12 (B12) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.7 | Sum Observations | 296 |
| Std Deviation | 1.46174856 | Variance | 2.13670886 |
| Skewness | -0.7561896 | Kurtosis | -0.9339848 |
| Uncorrected SS | 1264 | Corrected SS | 168.8 |
| Coeff Variation | 39.5067179 | Std Error Mean | 0.16342846 |



|  | Variable: | B13 (B13) |  |
| :---: | :---: | :---: | :---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.3 | Sum Observations | 264 |
| Std Deviatio | n 1.37242279 | Variance | 1.8835443 |
| Skewness | -0.1711607 | Kurtosis | -1.4239773 |
| Uncorrected | SS 1020 | Corrected SS | 148.8 |
| Coeff Variation | 41.5885693 | Std Error Mean | 0.15344153 |
| Location Basic Statistical Measures |  |  |  |
|  |  |  |  |
| MeanMedian | 3.300000 Std D | viation | 1.37242 |
|  | 4.000000 Varia | nce | 1.88354 |
| Mode | 2.000000 Range |  | 4.00000 |
|  | Inter | quartile Range | 2.50000 |
| Quantiles (Definition 5) |  |  |  |
| Quantile Estimate |  |  |  |
| 100\% Max 5.0 |  |  |  |
| 99\% 5.0 |  |  |  |
| 95\% 5.0 |  |  |  |
| 90\% 5.0 |  |  |  |
| 75\% Q3 4.5 |  |  |  |
| 50\% Median 4.0 |  |  |  |
| 25\% Q1 2.0 |  |  |  |
| 10\% 2.0 |  |  |  |
| $5 \%$ 1.0 |  |  |  |
| 1\% 1.0 |  |  |  |
|  | 0\% Min | 1.0 |  |


|  | Variable: | C14 (C14) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.375 | Sum Observations | 270 |
| Std Deviation | 1.39959307 | Variance | 1.95886076 |
| Skewness | -0.276137 | Kurtosis | -1.4469799 |
| Uncorrected SS | 1066 | Corrected SS | 154.75 |
| Coeff Variation | 41.4694243 | Std Error Mean | 0.15647926 |


| Basic Statistical Measures |  |  |  |
| :--- | :--- | :--- | :--- |
| Variability |  |  |  |
| Location | Van |  |  |
| Mean | 3.375000 | Std Deviation | 1.39959 |
| Median | 4.000000 | Variance | 1.95886 |
| Mode | 2.000000 | Range | 4.00000 |
|  |  | Interquartile Range | 3.00000 |

Note: The mode displayed is the smallest of 2 modes with a count of 25 .

| Quantiles | (Definition 5 ) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5 |
| $99 \%$ | 5 |
| $95 \%$ | 5 |
| $90 \%$ | 5 |
| $75 \%$ Q3 | 5 |
| $50 \%$ Median | 4 |
| $25 \%$ Q1 | 2 |
| $10 \%$ | 2 |
| $5 \%$ | 1 |
| $1 \%$ | 1 |
| $0 \%$ Min | 1 |



|  | Variable: | C16 (C16) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 4.475 | Sum Observations | 358 |
| Std Deviation | 0.88553781 | Variance | 0.78417722 |
| Skewness | -1.9977064 | Kurtosis | 3.88036542 |
| Uncorrected SS | 1664 | Corrected SS | 61.95 |

19.7885544 Std Error Mean
0.09900614


|  | Variable: | C17 (C17) |  |
| :---: | :---: | :---: | :---: |
| N | 80 | Sum Weights | 80 |
| Mean | 4.325 | Sum Observations | 346 |
| Std Deviatio | n 1.05272401 | Variance | 1.10822785 |
| Skewness | -1.759451 | Kurtosis | 2.54449918 |
| Uncorrected | SS 1584 | Corrected SS | 87.55 |
| Coeff Variation 2 | ion 24.3404396 | Std Error Mean | 0.11769812 |
| Basic Statistical Measures |  |  |  |
| Location Variability |  |  |  |
| Mean | 4.325000 Std D | eviation | 1.05272 |
| Median | 5.000000 Varia | nce | 1.10823 |
| Mode | 5.000000 Range |  | 4.00000 |
|  | Inter | quartile Range | 1.00000 |
|  | Quantiles (D | efinition 5) |  |
|  | Quantile | Estimate |  |
|  | 100\% Max | 5 |  |
|  | 99\% | 5 |  |
|  | 95\% | 5 |  |
|  | 90\% | 5 |  |
|  | 75\% Q3 | 5 |  |
|  | 50\% Median | 5 |  |
|  | 25\% Q1 | 4 |  |
|  | 10\% | 3 |  |
|  | 5\% | 2 |  |
|  | 1\% | 1 |  |
|  | 0\% Min | 1 |  |


|  | Variable: | C18 (C18) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 4.4125 | Sum Observations | 353 |
| Std Deviation | 0.95059941 | Variance | 0.90363924 |
| Skewness | -1.6467647 | Kurtosis | 1.65902771 |
| Uncorrected SS | 1629 | Corrected SS | 71.3875 |
| Coeff Variation | 21.5433294 | Std Error Mean | 0.10628025 |


| Basic Statistical Measures |  |  |  |
| :--- | ---: | :--- | :---: |
| Location |  |  |  |
| Variability |  |  |  |
| Mean | 4.412500 | Std Deviation | 0.95060 |
| Median | 5.000000 | Variance | 0.90364 |
| Mode | 5.000000 | Range | 3.00000 |
|  |  | Interquartile Range | 1.00000 |


| Quantiles | (Definition 5) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5.0 |
| $99 \%$ | 5.0 |
| $95 \%$ | 5.0 |
| $90 \%$ | 5.0 |
| $75 \%$ Q3 | 5.0 |
| $50 \%$ Median | 5.0 |
| $25 \%$ Q1 | 4.0 |
| $10 \%$ | 2.5 |
| $5 \%$ | 2.0 |
| $1 \%$ | 2.0 |
| $0 \%$ Min | 2.0 |




| Quantiles | (Definition 5) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5 |
| $99 \%$ | 5 |
| $95 \%$ | 5 |
| $90 \%$ | 5 |
| $75 \%$ Q3 | 4 |
| $50 \%$ Median | 3 |
| $25 \%$ Q1 | 2 |
| $10 \%$ | 1 |
| $5 \%$ | 1 |
| $1 \%$ | 1 |
| $0 \%$ Min | 1 |


|  | Variable: | D21 (D21) |  |
| :---: | :---: | :---: | :---: |
| N | 79 | Sum Weights | 79 |
| Mean | 2.08860759 | Sum Observations | 165 |
| Std Deviatio | n 1.34154401 | Variance | 1.79974034 |
| Skewness | 1.10934444 | Kurtosis | -0.0317542 |
| Uncorrected | SS 485 | Corrected SS | 140.379747 |
| Coeff Variation | ion 64.2315013 | Std Error Mean | 0.15093549 |
| Location Basic Statistical Masiability |  |  |  |
|  |  |  |  |
| Mean | 2.088608 Std D | viation | 1.34154 |
| Median | 2.000000 Varia | nce | 1.79974 |
| Mode | 1.000000 Range |  | 4.00000 |
|  | Inter | quartile Range | 2.00000 |
|  | Quantiles (D | finition 5) |  |
|  | Quantile | Estimate |  |
|  | 100\% Max | 5 |  |
|  | 99\% | 5 |  |
|  | 95\% | 5 |  |
|  | 90\% | 5 |  |
|  | 75\% Q3 | 3 |  |
|  | 50\% Median | 2 |  |
|  | 25\% Q1 | 1 |  |
|  | 10\% | 1 |  |
|  | 5\% | 1 |  |
|  | 1\% | 1 |  |
|  | 0\% Min | 1 |  |


|  | Variable: | D22 (D22) |  |
| :--- | ---: | :--- | ---: |
| N | 77 | Sum Weights | 77 |
| Mean | 3.68831169 | Sum Observations | 284 |
| Std Deviation | 1.05456077 | Variance | 1.11209843 |
| Skewness | -0.8597188 | Kurtosis | 0.43484349 |
| Uncorrected SS | 1132 | Corrected SS | 84.5194805 |
| Coeff Variation | 28.5919647 | Std Error Mean | 0.12017835 |




|  | Variable: | D24 (D24) |  |
| :--- | ---: | :--- | ---: |
| N | 80 | Sum Weights | 80 |
| Mean | 3.7125 | Sum Observations | 297 |
| Std Deviation | 1.19273911 | Variance | 1.42262658 |
| Skewness | -0.5674519 | Kurtosis | -0.9213734 |
| Uncorrected SS | 1215 | Corrected SS | 112.3875 |
| Coeff Variation | 32.1276528 | Std Error Mean | 0.13335229 |


| Basic |  |  |  |
| :--- | :--- | :--- | :--- |
| Statistical Measures |  |  |  |
| Location | Variability |  |  |
| Mean | 3.712500 | Std Deviation | 1.19274 |
| Median | 4.000000 | Variance | 1.42263 |
| Mode | 4.000000 | Range | 4.00000 |
|  |  | Interquartile Range | 2.00000 |


| Quantiles | (Definition 5 ) |
| :--- | ---: |
| Quantile | Estimate |
| $100 \%$ Max | 5 |
| $99 \%$ | 5 |
| $95 \%$ | 5 |
| $90 \%$ | 5 |
| $75 \%$ Q3 | 5 |
| $50 \%$ Median | 4 |
| $25 \%$ Q1 | 3 |
| $10 \%$ | 2 |
| $5 \%$ | 2 |
| $1 \%$ | 1 |
| $0 \%$ Min | 1 |


|  | Variable: | D25 (D25) |  |
| :---: | :---: | :---: | :---: |
| $N$ | 80 | Sum Weights | 80 |
| Mean | 3.825 | Sum Observations | 306 |
| Std Deviation | n 1.28057542 | Variance | 1.63987342 |
| Skewness | -0.776239 | Kurtosis | -0.8206988 |
| Uncorrected | SS 1300 | Corrected SS | 129.55 |
| Coeff Variation | ion 33.4790961 | Std Error Mean | 0.14317268 |
| Location Basic Statistical Measures |  |  |  |
|  |  |  |  |
| Mean | 3.825000 Std D | eviation | 1.28058 |
| Median | 4.000000 Varia | nce | 1.63987 |
| Mode | 5.000000 Range |  | 4.00000 |
|  | Inter | quartile Range | 3.00000 |
| Quantiles (Definition 5) |  |  |  |
| Quantile Estimate |  |  |  |
| 100\% Max 5 |  |  |  |
| 99\% 5 |  |  |  |
| 95\% 5 |  |  |  |
| 90\% 5 |  |  |  |
| 75\% Q3 5 |  |  |  |
| 50\% Median 4 |  |  |  |
| 25\% Q1 2 |  |  |  |
| 10\% 2 |  |  |  |
| 5\% 2 |  |  |  |
| 1\% 1 |  |  |  |
|  | 0\% Min | 1 |  |

## Comparison of proportions



|  | Cumulative |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Cumulative |  |  |  |  |
|  | A3 Frequency | Percent | Frequency | Percent |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Disagree - Strongly Disagree | ee 32 | 43.24 | 32 | 43.24 |
| Agree - Strongly Agree | 42 | 56.76 | 74 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 1.3514 |  |  |  |  |
| DF 1 |  |  |  |  |
| Pr > ChiSq 0.2450 |  |  |  |  |
| Sample Size $=74$ |  |  |  |  |


|  | Cumulative |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Cumulative |  |  |  |  |
|  | A4 Frequency | Percent | Frequency | Percent |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Disagree - Strongly Disagree | 29 | 39.19 | 29 | 39.19 |
| Agree - Strongly Agree | 45 | 60.81 | 74 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| fffffffffffffffffffff |  |  |  |  |
| Chi-Square 3.4595 |  |  |  |  |
| DF 1 |  |  |  |  |
| Pr > ChiSq 0.0629 |  |  |  |  |
| Sample Size = 74 |  |  |  |  |


| Disagree - Strongly Disagree <br> Agree - Strongly Agree | ee 18 | 24.32 | 18 | 24.32 |
| :---: | :---: | :---: | :---: | :---: |
|  | 56 | 75.68 | 74 | 100.00 |
|  | Chi-Squar | Test |  |  |
|  | for Equal Pr | ortions |  |  |
|  | $f f f f f f f f f f f f$ | fffffff |  |  |
|  | Chi-Square | 19.5135 |  |  |
|  | DF | 1 |  |  |
|  | Pr > ChiSq | <. 0001 |  |  |
|  | Effective Samp | Size = 74 |  |  |
|  | Frequency Mi | ng = 1 |  |  |
|  |  | Cumulative |  |  |
| Cumulative |  |  |  |  |
|  | B6 Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff. |  |  |  |  |
| Disagree - Strongly Disagree | 33 | 42.86 | 33 | 42.86 |
| Agree - Strongly Agree | 44 | 57.14 | 77 | 100.00 |
|  | Chi-Squar | Test |  |  |
|  | for Equal Pr | rtions |  |  |
|  | $f f f f f f f f f f f f$ | fffffff |  |  |
|  | Chi-Square | 1.5714 |  |  |
|  | DF |  |  |  |
|  | Pr > ChiSq | 0.2100 |  |  |
|  | Sample Si | = 77 |  |  |
|  |  | Cumulative |  |  |
| Cumulative |  |  |  |  |
|  | 37 Frequency | Percent | Frequency | Percent |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Agree - Strongly Agree | 42 | 61.76 | 68 | 100.00 |
|  | Chi-Squar | Test |  |  |
|  | for Equal Pr | ortions |  |  |
|  | $f f f f f f f f f f f f$ | fffffff |  |  |
|  | Chi-Square | 3.7647 |  |  |
|  | DF | 1 |  |  |
|  | $\mathrm{Pr}>\mathrm{ChiSq}$ | 0.0523 |  |  |
|  | Sample Si | $=68$ |  |  |
|  |  | Cumulative |  |  |
| Cumulative |  |  |  |  |
|  | 38 Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff. |  |  |  |  |
| Disagree - Strongly Disagree | 27 | 38.57 | 27 | 38.57 |
| Agree - Strongly Agree | 43 | 61.43 | 70 | 100.00 |
|  | Chi-Squar | est |  |  |
|  | for Equal Pr | rtions |  |  |
|  | fffffffffffff | fffffff |  |  |
|  | Chi-Square | 3.6571 |  |  |
|  | DF | 1 |  |  |
|  | $\mathrm{Pr}>\mathrm{ChiSq}$ | 0.0558 |  |  |
|  | Sample Si | $=70$ |  |  |
|  |  | Cumulative |  |  |
| Cumulative |  |  |  |  |
|  | 39 Frequency | Percent | Frequency | Percent |
| $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Disagree - Strongly Disagree | 26 | 34.67 | 26 | 34.67 |
| Agree - Strongly Agree | 49 | 65.33 | 75 | 100.00 |
|  | Chi-Squar | Test |  |  |
|  | for Equal Pr | rtions |  |  |
|  | $f f f f f f f f f f f f$ | ffffff |  |  |
|  | Chi-Square | 7.0533 |  |  |
|  | DF | 1 |  |  |
|  | $\mathrm{Pr}>\mathrm{ChiSq}$ | 0.0079 |  |  |




|  |  |  | Cumulative |  |
| :---: | :---: | :---: | :---: | :---: |
| Cumulative |  |  |  |  |
| D19 | Frequency | Percent | Frequency | Percent |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Disagree - Strongly Disagree | 30 | 42.86 | 30 | 42.86 |
| Agree - Strongly Agree | 40 | 57.14 | 70 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 1.4286 |  |  |  |  |
| DF 1 |  |  |  |  |
| $\mathrm{Pr}>$ ChiSq 0.2320 |  |  |  |  |
| Sample Size $=70$ |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
| D20 | Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff. |  |  |  |  |
| Agree - Strongly Agree | 39 | 56.52 | 69 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 1.1739 |  |  |  |  |
| DF 1 |  |  |  |  |
| Pr > ChiSq 0.2786 |  |  |  |  |
| Effective Sample Size = 69 |  |  |  |  |
| Frequency Missing = 1 |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
| D21 | Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Disagree - Strongly Disagree | 59 | 79.73 | 59 | 79.73 |
| Agree - Strongly Agree | 15 | 20.27 | 74 | 100.00 |
| Chi-Square Test |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| ffffffffffffffffffffff |  |  |  |  |
| Chi-Square 26.1622 |  |  |  |  |
| DF 1 |  |  |  |  |
| Pr > ChiSq <.0001 |  |  |  |  |
| Effective Sample Size = 74 |  |  |  |  |
| Frequency Missing = 1 |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
| D22 | Frequency | Percent | Frequency | Percent |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |  |
| Disagree - Strongly Disagree | 10 | 16.39 | 10 | 16.39 |
| Agree - Strongly Agree | 51 | 83.61 | 61 | 100.00 |
|  |  |  |  |  |
| for Equal Proportions |  |  |  |  |
| $f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |  |
| Chi-Square 27.5574 |  |  |  |  |
| DF 1 |  |  |  |  |
| $\mathrm{Pr}>$ ChiSq <.0001 |  |  |  |  |
| Effective Sample Size = 61 |  |  |  |  |
| Frequency Missing = 3 |  |  |  |  |
| Cumulative |  |  |  |  |
| Cumulative |  |  |  |  |
| D23 | Frequency | Percent | Frequency | Percent |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff. |  |  |  |  |
| Disagree - Strongly Disagree | 14 | 18.92 | 14 | 18.92 |
| Agree - Strongly Agree | 60 | 81.08 | 74 | 100.00 |



## Chi-square test for comparisons

Table of Number_residing by A1
Frequency,
Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff fffffffff ffffffff^ 1-6 , $12, \quad 28$, 40
, $15.38,35.90$, 51.28
, 30.00 , 70.00 ,
, 40.00 , 58.33 ,
fffffffff $f f f f f f f f^{\wedge} f f f f f f f f$ $>6 \quad, \quad 18, \quad 20, \quad 38$
, $23.08,25.64,48.72$
, 47.37, 52.63,
, 60.00 , 41.67 ,
fffffffff^ffffffff^ffffffff^

| Total | 30 | 48 | 78 |
| :--- | ---: | ---: | ---: |
|  | 38.46 | 61.54 | 100.00 |

Statistics for Table of Number_residing by A1

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 2.4837 | 0.1150 |
| Likelihood Ratio Chi-Square | 1 | 2.4964 | 0.1141 |
| Continuity Adj. Chi-Square | 1 | 1.8041 | 0.1792 |
| Mantel-Haenszel Chi-Square | 1 | 2.4518 | 0.1174 |
| Phi Coefficient |  | -0.1784 |  |
| Contingency Coefficient |  | 0.1757 |  |
| Cramer's V |  | -0.1784 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 12
Left-sided Pr <= F 0.0895

Right-sided Pr >= F 0.9651
Table Probability (P) 0.0545
Two-sided Pr <= P 0.1626
Sample Size = 78
Table of Number_residing by A2
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
,gree
fffffffff^ffffffff^ffffffff^
1-6 , 14 , 26
, $18.18,33.77$, 51.95
, 35.00 , 65.00 ,
, 50.00 , 53.06 ,
fffffffff^ffffffff^ffffffff
$>6$, 14 , 37
, $18.18,29.87,48.05$
, 37.84 , 62.16 ,
, 50.00 , 46.94 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$

| Total | 28 | 49 | 77 |
| :--- | ---: | ---: | ---: |
|  | 36.36 | 63.64 | 100.00 |

Statistics for Table of Number_residing by A2
Statistic DF Value Prob $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Chi-Square $1 \quad 0.0669 \quad 0.7959$

Likelihood Ratio Chi-Square 1 0.0669 0.7959
$\begin{array}{lllll}\text { Continuity Adj. Chi-Square } & 1 & 0.0005 & 0.9828\end{array}$
Mantel-Haenszel Chi-Square 1 0.0660 0.7972

| Phi Coefficient | -0.0295 |
| :--- | ---: |
| Contingency Coefficient | 0.0295 |
| Cramer's V | -0.0295 |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency ( $F$ ) 14 Left-sided Pr <= F 0.4911 Right-sided Pr >= F 0.6900 Table Probability (P) 0.1810 Two-sided Pr <= P 0.8169

Sample Size = 77
Table of Number_residing by A3 Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff ,ffffffff^ffffffff*
$1-6$, 13,38
, $17.57,33.78,51.35$
, 34.21 , 65.79 ,
, 40.63 , 59.52
ffffffffff ffffffff^ffffffff
$>6 \quad, \quad 19,17, \quad 36$
, $25.68,22.97,48.65$
, 52.78 , 47.22 ,
, 59.38 , 40.48 ,
ffffffffff fffffffff ffffffff^

| Total | 32 | 42 | 74 |
| :--- | ---: | ---: | ---: |

Statistics for Table of Number_residing by A3
Statistic DF - Value Prob $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Chi-Square $1 \quad 2.5967 \quad 0.1071$

| Likelihood Ratio Chi-Square | 1 | 2.6108 | 0.1061 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 1 1.8952 0.1686

| Mantel-Haenszel Chi-Square | 1 | 2.5616 | 0.1095 |
| :--- | :--- | :--- | :--- | :--- |

Phi Coefficient
-0.1873
Contingency Coefficient 0.1841
Cramer's V
$-0.1873$
Fisher's Exact Test fffffffffffffffffffffffffffffffffff
Cell (1,1) Frequency (F) 13
Left-sided Pr <= F 0.0841

Right-sided Pr >= F 0.9679
Table Probability (P) 0.0520
Two-sided Pr <= P 0.1588
Sample Size = 74

Table of Number_residing by A4
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
fffffffff , ffffffff^ffffffff ’
1-6 , 15,24 , 39
, $20.27,32.43,52.70$
, 38.46 , 61.54 ,
, 51.72 , 53.33
fffffffff^ffffffff^ffffffff^
$>6$, 14 , 21 , 35
$18.92,28.38,47.30$
, 40.00 , 60.00 ,
, 48.28 , 46.67,

| fffffffff^ffffffff^ffffffff |  |  |  |
| :--- | :---: | :---: | ---: |
| Total | 29 | 45 | 74 |
|  | 39.19 | 60.81 | 100.00 |

Statistics for Table of Number_residing by A4

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0183 | 0.8923 |
| Likelihood Ratio Chi-Square | 1 | 0.0183 | 0.8923 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0181 | 0.8931 |
| Phi Coefficient |  | -0.0157 |  |
| Contingency Coefficient |  | 0.0157 |  |
| Cramer's V |  | -0.0157 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 15 Left-sided Pr <= F 0.5406 Right-sided Pr >= F 0.6459 Table Probability (P) 0.1865 Two-sided Pr <= P 1.0000

Sample Size = 74

Table of Number_residing by A5 Frequency, Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff^ffffffff^ffffffff
1-6 , 7 , 32 , 39
, $9.46,43.24,52.70$
, 17.95 , 82.05 ,
, 38.89 , 57.14 ,
fffffffff^ffffffff^ffffffff
$>6 \quad 11$, 24 , 35
, $14.86,32.43,47.30$
, 31.43 , 68.57 ,
, 61.11, 42.86 ,
fffffffff ${ }^{\prime}$ ffffffff^ffffffff
$24.32 \quad 75.68 \quad 100.00$
Statistics for Table of Number_residing by A5
Statistic DF Value Prob
ffffffffffffffffffffffffffffffffffffffffffffffffffffffff
Chi-Square 1
Likelihood Ratio Chi-Square 1 1.8268 0.1765

| Continuity Adj. Chi-Square | 1 | 1.1622 | 0.2810 |
| :--- | :--- | :--- | :--- |

Mantel-Haenszel Chi-Square 1 1.7962 0.1802

Fisher's Exact Test $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 7 Left-sided Pr <= F 0.1406 Right-sided Pr >= F 0.9478 Table Probability (P) 0.0883 Two-sided Pr <= P 0.2777

Effective Sample Size = 74
Frequency Missing = 1

Table of Number_residing by B6 Frequency,
Percent Row Pct ,


Statistics for Table of Number_residing by B6

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.1084 | 0.2924 |
| Likelihood Ratio Chi-Square | 1 | 1.1117 | 0.2917 |
| Continuity Adj. Chi-Square | 1 | 0.6765 | 0.4108 |
| Mantel-Haenszel Chi-Square | 1 | 1.0940 | 0.2956 |
| Phi Coefficient |  | 0.1200 |  |
| Contingency Coefficient |  | 0.1191 |  |
| Cramer's V |  | 0.1200 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 19 Left-sided Pr <= F 0.9004 Right-sided Pr >= F 0.2055 Table Probability (P) 0.1060
Two-sided Pr <= P 0.3594

Sample Size = 77

Table of Number_residing by B7 Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree

$1-6 \quad 16,19, \quad 35$
, 23.53 , $27.94,51.47$
, 45.71, 54.29,
, 61.54 , 45.24 ,
ffffffffff ${ }^{\prime} f f f f f f f^{\wedge} f f f f f f f f$
$>6$, 10,23 , 33
, $14.71,33.82,48.53$
, 30.30 , 69.70 ,
, 38.46 , 54.76 ,
ffffffffff'ffffffff^ffffffff

| Total | 26 | 42 | 68 |
| :--- | ---: | ---: | ---: |
|  | 38.24 | 61.76 | 100.00 |

Statistics for Table of Number_residing by B7
Statistic DF Value Prob fffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 1

| Likelihood Ratio Chi-Square | 1 | 1.7199 | 0.1897 |
| :--- | :--- | :--- | :--- |


| Continuity Adj. Chi-Square | 1 | 1.1180 | 0.2904 |
| :--- | :--- | :--- | :--- | :--- |

$\begin{array}{lllll}\text { Mantel-Haenszel Chi-Square } & 1 & 1.6831 & 0.1945\end{array}$
Phi Coefficient
0.1585

Contingency Coefficient 0.1565
Cramer's V 0.1585
Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$

| Cell (1,1) Frequency (F) | 16 |
| :--- | ---: |
| Left-sided Pr <= F | 0.9407 |
| Right-sided Pr >= F | 0.1452 |
| Table Probability (P) | 0.0859 |
| Two-sided Pr <= P | 0.2200 |
| Sample Size = 68 |  |

Table of Number_residing by B8
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ’ffffffff ffffffff^
1-6 , 14 , 21 , 35
, 20.00 , 30.00 , 50.00
, 40.00 , 60.00 ,
, 51.85 , 48.84 ,
fffffffff ${ }^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
$>6 \quad, \quad 13, \quad 22$, 35
, $18.57,31.43,50.00$
, 37.14 , 62.86 ,


| Total | 27 | 43 | 70 |
| :--- | ---: | ---: | ---: |
|  | 38.57 | 61.43 | 100.00 |

Statistics for Table of Number_residing by B8
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square $1 \quad 0.06030 .8060$ $\begin{array}{lllll}\text { Likelihood Ratio Chi-Square } & 1 & 0.0603 & 0.8060\end{array}$ Continuity Adj. Chi-Square $1 \quad 0.00001 .0000$ $\begin{array}{lllll}\text { Mantel-Haenszel Chi-Square } & 1 & 0.0594 & 0.8074\end{array}$ Phi Coefficient 0.0594 Contingency Coefficient 0.0293 Cramer's V

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency ( $F$ ) 14
Left-sided Pr <= F 0.6881

Right-sided Pr >= F 0.5000
Table Probability (P) 0.1881
Two-sided Pr <= P 1.0000
Sample Size = 70
Table of Number_residing by B9
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree
, gree
fffffffff ffffffff^ffffffff
1-6 , 11 , 28 , 39
, $14.67,37.33,52.00$
, 28.21 , 71.79 ,
, 42.31 , 57.14 ,
fffffffff^ffffffff^ffffffff^
$>6 \quad, \quad 15, \quad 21$, 36
, 20.00 , 28.00 , 48.00
, 41.67 , 58.33 ,
, 57.69 , 42.86 ,
fffffffff ffffffff^ffffffff^

| Total | 26 | 49 | 75 |
| :--- | ---: | ---: | ---: |
|  | 34.67 | 65.33 | 100.00 |

Statistics for Table of Number_residing by B9
Statistic DF Value Prob


Table of Number_residing by B10 Frequency, Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff ’ffffffff^ffffffff^
1-6 , $11, \quad 25$, 36
, 14.86 , 33.78 , 48.65
, 30.56 , 69.44 ,
, 64.71 , 43.86
fffffffff^ffffffff^ffffffff
$>6$, 62,38
, $8.11,43.24,51.35$
, 15.79 , 84.21 ,
, 35.29 , 56.14 ,
ffffffffff fffffffff ffffffff

| Total | 17 | 57 | 74 |
| :--- | ---: | ---: | ---: |
|  | 22.97 | 77.03 | 100.00 |

Statistics for Table of Number_residing by B10

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 2.2778 | 0.1312 |
| Likelihood Ratio Chi-Square | 1 | 2.3003 | 0.1293 |
| Continuity Adj. Chi-Square | 1 | 1.5198 | 0.2176 |
| Mantel-Haenszel Chi-Square | 1 | 2.2471 | 0.1339 |
| Phi Coefficient |  | 0.1754 |  |
| Contingency Coefficient |  | 0.1728 |  |
| Cramer's V |  | 0.1754 |  |

Fisher's Exact Test
fffffffffffffffffffffffffffffffffff
Cell (1,1) Frequency (F) 11
Left-sided Pr <= F 0.9636

Right-sided Pr >= F 0.1087
Table Probability (P) 0.0723
Two-sided Pr <= P 0.1705
Effective Sample Size $=74$
Frequency Missing = 1

Table of Number_residing by B11
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff ffffffff^ffffffff
1-6 , 9 , 36


Statistics for Table of Number_residing by B11

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.8291 | 0.1762 |
| Likelihood Ratio Chi-Square | 1 | 1.8440 | 0.1745 |
| Continuity Adj. Chi-Square | 1 | 1.1148 | 0.2910 |
| Mantel-Haenszel Chi-Square | 1 | 1.8047 | 0.1791 |
| Phi Coefficient |  | 0.1562 |  |
| Contingency Coefficient |  | 0.1543 |  |
| Cramer's V |  | 0.1562 |  |

Fisher's Exact Test

| fffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 9 |
| Left-sided Pr <= F | 0.9511 |
| Right-sided Pr >= F | 0.1456 |
| Table Probability (P) | 0.0967 |
| Two-sided Pr <= P | 0.2387 |
| Sample Size = 75 |  |

Table of Number_residing by B12
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ffffffff^ffffffff^
1-6 , $16, \quad 23$, 39
, $21.05,30.26$, 51.32
, 41.03 , 58.97 ,
, 72.73 , 42.59 ,
fffffffff^ffffffff^ffffffff^
$>6$, 61 , 37
, $7.89,40.79$,
48.68
, 16.22 , 83.78
, 27.27 , 57.41 ,
ffffffffff ffffffff^ffffffff^
Total $22 \quad 54$
$28.95 \quad 71.05 \quad 100.00$

| Statistics for Table of |  |  |  |
| :--- | :---: | :---: | ---: |
| Stamber_residing by | B12 |  |  |
| Stistic | DF | Value | Prob |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 5.6819 | 0.0171 |
| Likelihood Ratio Chi-Square | 1 | 5.8535 | 0.0155 |
| Continuity Adj. Chi-Square | 1 | 4.5397 | 0.0331 |
| Mantel-Haenszel Chi-Square | 1 | 5.6072 | 0.0179 |
| Phi Coefficient |  | 0.2734 |  |
| Contingency Coefficient |  | 0.2637 |  |
| Cramer's V |  | 0.2734 |  |

Fisher's Exact Test

| ffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 16 |
| Left-sided Pr <= F | 0.9963 |
| Right-sided Pr >= F | 0.0158 |
| Table Probability (P) | 0.0121 |
| Two-sided Pr <= P | 0.0230 |
| Sample Size = 76 |  |

Table of Number_residing by B13



Table of Number_residing by C14
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff^ffffffff^ffffffff
1-6 , 16 , 25 , 41
, 20.25 , 31.65 , 51.90
, 39.02 , 60.98 ,
, 50.00 , 53.19 ,
$f f f f f f f f f f^{\wedge} f f f f f f f^{\wedge} f f f f f f f f$
>6 , 16 , 22 , 38
, $20.25,27.85,48.10$
, 42.11 , 57.89 ,
, 50.00 , 46.81 ,
fffffffff^ffffffff^ffffffff
Total $32 \quad 47$
$40.51 \quad 59.49 \quad 100.00$
Statistics for Table of Number_residing by C14
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 100.07770 .7805 Likelihood Ratio Chi-Square 1 0.0777 0.7805 $\begin{array}{llll}\text { Continuity Adj. Chi-Square } & 1 & 0.0024 & 0.9606\end{array}$ Mantel-Haenszel Chi-Square 1 0.0767 0.7818

| Phi Coefficient | -0.0314 |
| :--- | ---: |
| Contingency Coefficient | 0.0313 |
| Cramer's V | -0.0314 |

Fisher's Exact Test

| ffffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 16 |
| Left-sided Pr <= F | 0.4801 |
| Right-sided Pr >= F | 0.6943 |
| Table Probability (P) | 0.1744 |
| Two-sided Pr <= P | 0.8216 |

Sample Size = 79

Table of Number_residing by C15
Frequency,
Percent
Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ffffffff^ffffffff
1-6 , 6 , 33
$7.89,43.42$,
, 15.38 , 84.62 ,
, 66.67 , 49.25 , fffffffff^ffffffff^ffffffff^
$>6$, 34 , 37
, $3.95,44.74,48.68$
, 8.11 , 91.89 ,
, 33.33 , 50.75 fffffffff^ffffffff^ffffffff^ Total 9676
$11.84 \quad 88.16 \quad 100.00$
Statistics for Table of Number_residing by C15
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff

| Chi-Square | 1 | 0.9630 | 0.3264 |
| :--- | :--- | :--- | :--- |

Likelihood Ratio Chi-Square 1 0.9817 0.3218

| Continuity Adj. Chi-Square | 1 | 0.3921 | 0.5312 |
| :--- | :--- | :--- | :--- | :--- |


| Mantel-Haenszel Chi-Square 1 | 0.9503 | 0.3296 |
| :--- | :--- | :--- | :--- | :--- |

Phi Coefficient
0.1126

Contingency Coefficient
0.1119

Cramer's V 0.1126
WARNING: $50 \%$ of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency (F) 6 Left-sided Pr <= F 0.9106
Right-sided Pr >= F 0.2673
Table Probability (P) 0.1779
Two-sided Pr <= P 0.4814
Sample Size = 76

Table of Number_residing by C16
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff^ffffffff^ffffffff
1-6 , 4 , 35
, $5.19,45.45$
50.65
, 10.26 , 89.74 ,
, 80.00 , 48.61
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
>6 , 1 , 37

$$
\begin{aligned}
& \text {, } 1.30,48.05 \text {, } 49.35 \\
& \text {, } 2.63,97.37, \\
& \text { ffffffffff^ffffffff^ffffffff^ } \\
& \begin{array}{lrrr}
\text { Total } & 5 & 72 & 77 \\
& 6.49 & 93.51 & 100.00
\end{array}
\end{aligned}
$$

Statistics for Table of Number_residing by C16

|  | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| Statistic | 1 | 1.8429 | 0.1746 |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.9700 | 0.1604 |
| Likelihood Ratio Chi-Square | 1 | 0.8010 | 0.3708 |
| Continuity Adj. Chi-Square | 1 | 1.8189 | 0.1774 |
| Mantel-Haenszel Chi-Square | 1 | 0.1547 |  |
| Phi Coefficient |  | 0.1529 |  |
| Contingency Coefficient |  | 0.1547 |  |
| Cramer's V |  |  |  |

WARNING: 50\% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 4 Left-sided Pr <= F 0.9709 Right-sided Pr >= F 0.1873 Table Probability (P) 0.1582 Two-sided Pr <= P 0.3584

Sample Size = 77

Table of Number_residing by C17 Frequency, Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree

1-6 , 4,34
, 5.33 , 45.33 , 50.67
, $10.53,89.47$,
, $57.14,50.00$,
ffffffffff ffffffff^fffffffff
$>6$, 3,37
, $4.00,45.33,49.33$
, 8.11, 91.89,
, 42.86 , 50.00 ,
fffffffff^ffffffff^ffffffff^

| Total | 7 | 68 | 75 |
| :--- | ---: | ---: | ---: |

Statistics for Table of Number_residing by C17
Statistic DF Value Prob $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Chi-Square 10.12950 .7189

| Likelihood Ratio Chi-Square | 1 | 0.1300 | 0.7184 |
| :--- | :--- | :--- | :--- | :--- |


| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| :--- | :--- | :--- | :--- | :--- |

$\begin{array}{lllll}\text { Mantel-Haenszel Chi-Square } & 1 & 0.1278 & 0.7207\end{array}$
Phi Coefficient 0.0416

Contingency Coefficient 0.0415
Cramer's V 0.0416
WARNING: $50 \%$ of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 4 Left-sided Pr <= F 0.7738 Right-sided Pr >= F 0.5152 Table Probability (P) 0.2890 Two-sided Pr <= P 1.0000

Table of Number_residing by C18 Frequency,
Percent
Row Pct
Col Pct ,Disagree, Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
fffffffff^ffffffff^ffffffff^
$1-6,41$
, $1.28,51.28,52.56$
, $2.44,97.56$,
, 12.50 , 57.14 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
$>6$, 7,37
, $8.97,38.46,47.44$
, 18.92 , 81.08 ,
, 87.50 , 42.86 ,
fffffffff^ffffffff^ffffffff^
Total $\quad 8 \quad 70$
$10.26 \quad 89.74 \quad 100.00$

Statistics for Table of Number residing by C18

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 5.7385 | 0.0166 |
| Likelihood Ratio Chi-Square | 1 | 6.2903 | 0.0121 |
| Continuity Adj. Chi-Square | 1 | 4.0878 | 0.0432 |
| Mantel-Haenszel Chi-Square | 1 | 5.6650 | 0.0173 |
| Phi Coefficient |  | -0.2712 |  |
| Contingency Coefficient |  | 0.2618 |  |
| Cramer's V |  | -0.2712 |  |

WARNING: 50\% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency (F) 1
Left-sided Pr <= F 0.0196

Right-sided Pr >= F 0.9984
Table Probability (P) 0.0180
Two-sided Pr <= P 0.0237

Sample Size $=78$

Table of Number_residing by D19
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,

$1-6$, 18,19 , 37
, $25.71,27.14,52.86$
, 48.65 , 51.35 ,
, 60.00 , 47.50 ,
fffffffff^ffffffff^ffffffff^


Statistics for Table of Number_residing by D19 Statistic DF Value Prob $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$

| Chi-Square | 1 | 1.0749 | 0.2998 |
| :--- | :--- | :--- | :--- |
| Likelihood Ratio Chi-Square | 1 | 1.0795 | 0.2988 |
| Continuity Adj. Chi-Square | 1 | 0.6318 | 0.4267 |
| Mantel-Haenszel Chi-Square | 1 | 1.0596 | 0.3033 |
| Phi Coefficient |  | 0.1239 |  |
| Contingency Coefficient |  | 0.1230 |  |
| Cramer's V |  | 0.1239 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell (1,1) Frequency (F) 18
Left-sided Pr <= F 0.8997

Right-sided Pr >= F 0.2136
Table Probability (P) 0.1133
Two-sided Pr <= P 0.3406
Sample Size $=70$

Table of Number_residing by D20 Frequency, Percent Row Pct , Col Pct ,Disagree,Agree - , Total , - Stron,Strongly, ,gly Disa, Agree , , gree
ffffffffff ffffffff^ffffffff
1-6 , 16,19 , 35
, $23.19,27.54,50.72$
, 45.71 , 54.29 ,
, 53.33 , 48.72
fffffffff^ffffffff^ffffffff


Statistics for Table of Number residing by D20

|  | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| Statistic | 1 | 0.1445 | 0.7038 |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.1446 | 0.7038 |
| Likelihood Ratio Chi-Square | 1 | 0.0188 | 0.8908 |
| Continuity Adj. Chi-Square | 1 | 0.1424 | 0.7059 |
| Mantel-Haenszel Chi-Square | 1 | 0.0458 |  |
| Phi Coefficient |  | 0.0457 |  |
| Contingency Coefficient |  | 0.0458 |  |
| Cramer's V |  |  |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell ( 1,1 ) Frequency ( $F$ ) 16 Left-sided Pr <= F 0.7331 Right-sided Pr >= F 0.4455 Table Probability (P) 0.1787 Two-sided $\operatorname{Pr}<=P \quad 0.8094$

Effective Sample Size $=69$ Frequency Missing = 1

Table of Number_residing by D21 Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
$\begin{array}{ll}\text { gree , gree } \\ \text { ffffffff } \\ 1-6 & 28,\end{array}$ $\begin{array}{rrrr}1-6 & 28, & 10, & 38 \\ & , & 37.84, & 13.51, \\ & & & \end{array}$
, 73.68 , 26.32 ,


Table of Number_residing by D23

## Frequency,

Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff 'ffffffff^fffffffff
1-6 , $6, \quad 30,36$
, $8.11,40.54,48.65$
, 16.67 , 83.33
, 42.86 , 50.00 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
$>6$, 80 , 38
, $10.81,40.54,51.35$
, 21.05 , 78.95 ,
, 57.14 , 50.00
fffffffff ${ }^{\wedge} f f f f f f f^{\wedge} f f f f f f f f$

| Total | 14 | 60 | 74 |
| :--- | ---: | ---: | ---: |
|  | 18.92 | 81.08 | 100.00 |

Statistics for Table of Number_residing by D23
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff

| Chi-Square | 1 | 0.2318 | 0.6302 |
| :--- | ---: | ---: | ---: |
| Likelihood Ratio Chi-Square | 1 | 0.2326 | 0.6296 |
| Continuity Adj. Chi-Square | 1 | 0.0341 | 0.8536 |
| Mantel-Haenszel Chi-Square | 1 | 0.2287 | 0.6325 |
| Phi Coefficient |  | -0.0560 |  |
| Contingency Coefficient |  | 0.0559 |  |
| Cramer's V |  | -0.0560 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 6 Left-sided $\mathrm{Pr}<=\mathrm{F}$ 0.4278 Right-sided Pr >= F 0.7811 Table Probability (P) 0.2089 Two-sided Pr <= P 0.7690

Sample Size = 74

Table of Number_residing by D24 Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff „ffffffff^ffffffff^
1-6 , 10,28 , 38
, $13.89,38.89,52.78$
, 26.32 , 73.68 ,
, 52.63 , 52.83 ,
ffffffffff $f f f f f f f f{ }^{\wedge} f f f f f f f f$
$>6$, $9, \quad 25, \quad 34$
, $12.50,34.72,47.22$
, 26.47 , 73.53,
, 47.37 , 47.17 ,
ffffffffff^ffffffffeffffffff

| Total | 19 | 53 | 72 |
| :--- | ---: | ---: | ---: |

Statistics for Table of Number_residing by D24
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 10.00020 .9881

| Likelihood Ratio Chi-Square | 1 | 0.0002 | 0.9881 |
| :--- | :--- | :--- | :--- | :--- |


| Continuity Adj. Chi-Square 10.0000 | 1.0000 |
| :--- | :--- | :--- | :--- |


| Mantel-Haenszel Chi-Square | 1 | 0.0002 | 0.9882 |
| :--- | ---: | ---: | ---: |
| Phi Coefficient |  | -0.0018 |  |
| Contingency Coefficient |  | 0.0018 |  |
| Cramer's V |  | -0.0018 |  |

Fisher's Exact Test $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 10 Left-sided Pr <= F 0.5987 Right-sided Pr >= F 0.6119 Table Probability (P) 0.2106 Two-sided Pr <= P 1.0000

Sample Size = 72

Table of Number_residing by D25
Frequency,
Percent Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ’ffffffff^ffffffff^
1-6 , $10, \quad 30$, 40
, 12.66 , 37.97 , 50.63
, 25.00 , 75.00
, 47.62, 51.72,
fffffffff^ffffffff^ffffffff
>6 , 11 , 28 , 39
, $13.92,35.44$, 49.37
, 28.21 , 71.79 ,
, 52.38 , 48.28 ,
ffffffffff ffffffff^ffffffff

| Total | 21 | 58 | 79 |
| :--- | ---: | ---: | ---: |
|  | 26.58 | 73.42 | 100.00 |

Statistics for Table of Number_residing by D25
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffffff
Chi-Square 10.10390 .7471

| Likelihood Ratio Chi-Square | 1 | 0.1040 | 0.7471 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 100.00460 .9460

| Mantel-Haenszel Chi-Square 10.1026 | 0.7487 |
| :--- | :--- | :--- | :--- | Phi Coefficient

-0.0363
Contingency Coefficient 0.0362
Cramer's V
$-0.0363$
Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell (1,1) Frequency (F) 10
Left-sided Pr <= F 0.4729

Right-sided Pr >= F 0.7178
Table Probability (P) 0.1907
Two-sided Pr <= P 0.8027
Sample Size = 79

Table of Number_home by A1
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ’ffffffff^ffffffff^
0-2 , 10,18 , 28
, $14.71,26.47$, 41.18
, 35.71 , 64.29,
, 40.00 , 41.86 ,
fffffffff $f f f f f f f f^{\wedge} f f f f f f f f$
$>2 \quad, \quad 15, \quad 25,40$
, $22.06,36.76$, 58.82


Statistics for Table of Number_home by A1

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0226 | 0.8805 |
| Likelihood Ratio Chi-Square | 1 | 0.0226 | 0.8804 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0223 | 0.8814 |
| Phi Coefficient |  | -0.0182 |  |
| Contingency Coefficient |  | 0.0182 |  |
| Cramer's V |  | -0.0182 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 10 Left-sided Pr <= F 0.5434 Right-sided Pr >= F 0.6560 Table Probability (P) 0.1995 Two-sided Pr <= P 1.0000

Sample Size = 68

> Table of Number_home by A2 Frequency, Percent Row Pct , Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ffffffff^ffffffff 0-2 , 10 , 19 , 29
, $14.93,28.36,43.28$
, 34.48 , 65.52 ,
, 43.48 , 43.18 ,
fffffffff^ffffffff^ffffffff
$>2 \quad, \quad 13, \quad 25, \quad 38$
, 19.40 , 37.31 , 56.72
, 34.21 , 65.79 ,
, 56.52 , 56.82
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$ ^

| Total | 23 | 44 | 67 |
| :--- | ---: | ---: | ---: |
|  | 34.33 | 65.67 | 100.00 |

Statistics for Table of Number home by A2
Statistic DF Value Prob fffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 100.000500 .9814

| Likelihood Ratio Chi-Square | 1 | 0.0005 | 0.9815 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square $1 \quad 0.00001 .0000$

| Mantel-Haenszel Chi-Square 1 | 0.0005 | 0.9816 |
| :--- | :--- | :--- | :--- | :--- |

Phi Coefficient
0.0028

Contingency Coefficient 0.0028
Cramer's V
0.0028

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency (F) 10
Left-sided Pr <= F 0.6125

Right-sided Pr >= F 0.5919
Table Probability (P) 0.2044
Two-sided Pr <= P 1.0000
Sample Size $=67$

Table of Number_home by A3
Frequency,
Percent
Row Pct ,


| Cell (1,1) Frequency (F) | 11 |
| :--- | ---: |
| Left-sided Pr <= F | 0.6086 |
| Right-sided Pr >= F | 0.5943 |
| Table Probability (P) | 0.2030 |
| Two-sided Pr <= P | 1.0000 |
| Sample Size = 64 |  |

Table of Number_home by A5
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ’ffffffff ffffffff^
0-2 , 9 , 28
, $14.06,29.69,43.75$
, 32.14 , 67.86 ,
, 50.00 , 41.30 ,
fffffffff^ffffffff^ffffffff
$>2 \quad, \quad 97$
, 14.06 , $42.19,56.25$
, 25.00 , 75.00 ,
fffffffff^ffffffff^fffffffff

| Total | 18 | 46 | 64 |
| :--- | ---: | ---: | ---: |
|  | 28.13 | 71.88 | 100.00 |

Statistics for Table of Number_home by A5 Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 100.39750 .5284

| Likelihood Ratio Chi-Square | 1 | 0.3958 | 0.5293 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 1 0.1227 0.7261

| Mantel-Haenszel Chi-Square | 1 | 0.3913 | 0.5316 |
| :--- | :--- | :--- | :--- | :--- | Phi Coefficient

$0.3913-0.5316$
0.0788

Cramer's V
0.0786
0.0788

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell (1,1) Frequency (F) 9
Left-sided $\operatorname{Pr}<=\mathrm{F} \quad 0.8189$

Right-sided Pr >= F 0.3617
Table Probability (P) 0.1805
Two-sided Pr <= P 0.5831
Effective Sample Size $=64$
Frequency Missing = 1

Table of Number_home by B6
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff^ffffffff^ffffffff^
0-2 , 10 , 19 , 29
, 14.71 , 27.94 , 42.65
, 34.48 , 65.52 ,
, 40.00 , 44.19 ,
ffffffffff ffffffff^ffffffff
>2 , 15 , 24 , 39
, 22.06 , $35.29,57.35$
, 38.46 , 61.54 ,
, 60.00 , 55.81 ,
ffffffffff $f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
$\begin{array}{lrrr}\text { Total } & 25 & 43 & 68 \\ & 36.76 & 63.24 & 100.00\end{array}$


Table of Number_home by B8 Frequency, Percent Row Pct , Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff ${ }^{\prime}$ ffffffff^ffffffff
0-2 $\quad 5,22,27$


Frequency Missing = 2

Table of Number_home by B10 Frequency, Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron, Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ffffffff^ffffffff^
0-2 , 8 , 18 , 26
, $12.50,28.13,40.63$
, 30.77 , 69.23 ,
, 50.00 , 37.50
$f f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
$>2 \quad$, $\quad 30$, 38
, $12.50,46.88$, 59.38
, 21.05 , 78.95 ,
, 50.00 , 62.50 ,
$f f f f f f f f f f^{\wedge} f f f f f f f f f^{\wedge} f f f f f f f f$

| Total | 16 | 48 | 64 |
| :--- | ---: | ---: | ---: |
|  | 25.00 | 75.00 | 100.00 |

Statistics for Table of Number_home by B10
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff

| Chi-Square | 1 | 0.7773 | 0.3780 |
| :--- | :--- | :--- | :--- |
| Likelihood Ratio Chi-Square | 1 | 0.7687 | 0.3806 |
| Continuity Adj. Chi-Square | 1 | 0.3455 | 0.5567 |
| Mantel-Haenszel Chi-Square | 1 | 0.7652 | 0.3817 |
| Phi Coefficient |  | 0.1102 |  |
| Contingency Coefficient |  | 0.1095 |  |
| Cramer's V |  | 0.1102 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 8 Left-sided Pr <= F 0.8797 Right-sided Pr >= F 0.2767 Table Probability (P) 0.1564 Two-sided Pr <= P 0.3957

Effective Sample Size = 64
Frequency Missing = 1

Table of Number_home by B11
Frequency,
Percent
Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree , , gree
ffffffffff ’ffffffff^ffffffff^
0-2 , 8 , 17 , 25
, 12.31 , 26.15 , 38.46
, 32.00 , 68.00 ,
, 61.54 , 32.69 ,
fffffffff $f f f f f f f f^{\wedge} f f f f f f f f$
$>2$, 5 , 35
, 7.69 , 53.85
, 12.50 , 87.50
, 38.46 , 67.31 ffffffffff fffffffffffffffff^
Total $13 \quad 52 \quad 65$
$20.00 \quad 80.00 \quad 100.00$
Statistics for Table of Number_home by B11
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffffff

| Chi-Square | 1 | 3.6563 | 0.0559 |
| :--- | :--- | :--- | :--- |

Likelihood Ratio Chi-Square 1 3.5672 0.0589

| Continuity Adj. Chi-Square | 1 | 2.5391 | 0.1111 |
| :--- | :--- | :--- | :--- |
| Mantel-Haenszel Chi-Square | 1 | 3.6000 | 0.0578 |
| Phi Coefficient |  | 0.2372 |  |
| Contingency Coefficient |  | 0.2308 |  |
| Cramer's V |  | 0.2372 |  |

Fisher's Exact Test ffffffffffffffffffffffffffffffffff Cell (1,1) Frequency (F) 8 Left-sided Pr <= F 0.9864 Right-sided Pr >= F 0.0569 Table Probability (P) 0.0433 Two-sided Pr <= P 0.1084

Sample Size $=65$

Table of Number_home by B12
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
,gree
ffffffffff ’ffffffff^ffffffff^
$0-2$, 10,18 , 28
, $15.15,27.27,42.42$
, 35.71 , 64.29,
, 55.56 , 37.50
fffffffff^ffffffff^ffffffff^
>2 , 8 , 38
, $12.12,45.45,57.58$
, 21.05 , 78.95 ,
, 44.44 , 62.50 , fffffffff ffffffff^ffffffff^ Total $\quad 18 \quad 48 \quad 66$
$27.27 \quad 72.73 \quad 100.00$

Statistics for Table of Number_home by B12

|  | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| Statistic | 1 | 1.7472 | 0.1862 |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.7337 | 0.1879 |
| Likelihood Ratio Chi-Square | 1 | 1.0862 | 0.2973 |
| Continuity Adj. Chi-Square | 1 | 1.7207 | 0.1896 |
| Mantel-Haenszel Chi-Square | 1 | 0.1627 |  |
| Phi Coefficient |  | 0.1606 |  |
| Contingency Coefficient |  | 0.1627 |  |
| Cramer's V |  |  |  |

## Fisher's Exact Test

| fffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 10 |
| Left-sided Pr <= F | 0.9449 |
| Right-sided Pr >= F | 0.1488 |
| Table Probability (P) | 0.0937 |
| Two-sided Pr <= P | 0.2641 |
| Sample Size = 66 |  |

Table of Number_home by B13



Statistics for Table of Number_home by B13

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.5460 | 0.2137 |
| Likelihood Ratio Chi-Square | 1 | 1.5628 | 0.2113 |
| Continuity Adj. Chi-Square | 1 | 0.9803 | 0.3221 |
| Mantel-Haenszel Chi-Square | 1 | 1.5226 | 0.2172 |
| Phi Coefficient |  | -0.1530 |  |
| Contingency Coefficient |  | 0.1513 |  |
| Cramer's V |  | -0.1530 |  |

Fisher's Exact Test $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency ( $F$ ) 9 Left-sided Pr <= F 0.1611 Right-sided Pr >= F 0.9335 Table Probability (P) 0.0946 Two-sided Pr <= P 0.3112

Sample Size = 66
Table of Number_home by C14 Frequency, Percent Row Pct , Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff fffffffff ffffffff^ 0-2 , 17 , 29
, $24.64,17.39,42.03$
, 58.62 , 41.38 ,
, 58.62 , 30.00 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
$>2 \quad, \quad 12, \quad 28$, 40
, $17.39,40.58,57.97$
, 30.00 , 70.00 ,
, 41.38 , 70.00 , ffffffffff fffffffff ffffffff^

| Total | 29 | 40 | 69 |
| :--- | ---: | ---: | ---: |
|  | 42.03 | 57.97 | 100.00 |

Statistics for Table of Number_home by C14
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square $1 \quad 5.652100 .0174$

| Likelihood Ratio Chi-Square | 1 | 5.6879 | 0.0171 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 1 4.5384 0.0331

| Mantel-Haenszel Chi-Square | 1 | 5.5702 | 0.0183 |
| :--- | :--- | :--- | :--- |

Phi Coefficient
0.2862

Contingency Coefficient 0.2752
Cramer's V
0.2862

Fisher's Exact Test
fffffffffffffffffffffffffffffffffff
Cell $(1,1)$ Frequency ( $F$ ) 17
Left-sided Pr <= F 0.9958
Right-sided Pr >= F 0.0164

Table Probability (P) 0.0122
Two-sided Pr <= P 0.0260
Sample Size $=69$

Table of Number_home by C15
Frequency,
Percent
Row Pct ,

than 5. Chi-Square may not be a valid test.
Fisher's Exact Test
fffffffffffffffffffffffffffffffffff
Cell (1,1) Frequency (F)
Left-sided Pr <= F 0.4412
Right-sided Pr >= F 0.8927
Table Probability (P) 0.3339
Two-sided Pr <= P 0.6346
Sample Size = 67

Table of Number_home by C17
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ffffffff^ffffffff
0-2 , 3 , 24
, 4.55 , 36.36 ,
, 11.11 , 88.89
, $50.00,40.00$
$f f f f f f f f f f^{\wedge} f f f f f f f^{\wedge} f f f f f f f f$
>2 , 3 , 36 , 39
, $4.55,54.55,59.09$
, 7.69 , 92.31 ,
, 50.00 , 60.00 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
$\begin{array}{lrrr}\text { Total } & 6 & 60 & 66 \\ & 9.09 & 90.91 & 100.00\end{array}$
Statistics for Table of Number_home by C17

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.2256 | 0.6348 |
| Likelihood Ratio Chi-Square | 1 | 0.2223 | 0.6373 |
| Continuity Adj. Chi-Square | 1 | 0.0016 | 0.9684 |
| Mantel-Haenszel Chi-Square | 1 | 0.2222 | 0.6374 |
| Phi Coefficient |  | 0.0585 |  |
| Contingency Coefficient |  | 0.0584 |  |
| Cramer's V |  | 0.0585 |  |
| WARNING: 50\% of the cells have expected counts less |  |  |  |
|  | than 5. Chi-Square may not be a valid test. |  |  |


| Fisher's Exact Test |  |
| :--- | ---: |
| fffffffffffffffffffffffffffffffffff |  |
| Cell (1,1) Frequency (F) | 3 |
| Left-sided Pr <= F | 0.8190 |
| Right-sided Pr >= F | 0.4752 |
| Table Probability (P) | 0.2942 |
| Two-sided Pr <= P | 0.6823 |
| Sample Size = 66 |  |

Table of Number_home by C18
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff 'ffffffff^ffffffff
0-2 , 4 , 24
, 5.88 , 35.29 ,
41.18
, 14.29 , 85.71 ,
, $50.00,40.00$
fffffffff ${ }^{\prime} f f f f f f f f$ ^ffffffff
>2 , 4 , 40


Statistics for Table of Number_home by C18

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.2914 | 0.5893 |
| Likelihood Ratio Chi-Square | 1 | 0.2875 | 0.5918 |
| Continuity Adj. Chi-Square | 1 | 0.0248 | 0.8749 |
| Mantel-Haenszel Chi-Square | 1 | 0.2871 | 0.5921 |
| Phi Coefficient |  | 0.0655 |  |
| Contingency Coefficient |  | 0.0653 |  |
| Cramer's V |  | 0.0655 |  |

WARNING: $50 \%$ of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 4 Left-sided Pr <= F 0.8221 Right-sided Pr >= F 0.4311 Table Probability (P) 0.2531 Two-sided Pr <= P 0.7084

Sample Size $=68$

Table of Number_home by D19 Frequency Percent , Row Pct , Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ffffffff^ffffffff
0-2 , 19 , 27
, $30.16,12.70,42.86$
, 70.37 , 29.63 ,
, 70.37 , 22.22
ffffffffff $f f f f f f f f^{\wedge} f f f f f f f f$


Statistics for Table of Number_home by D19

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 14.6049 | 0.0001 |
| Likelihood Ratio Chi-Square | 1 | 15.0921 | 0.0001 |
| Continuity Adj. Chi-Square | 1 | 12.7051 | 0.0004 |
| Mantel-Haenszel Chi-Square | 1 | 14.3731 | 0.0001 |
| Phi Coefficient |  | 0.4815 |  |
| Contingency Coefficient |  | 0.4338 |  |
| Cramer's V |  | 0.4815 |  |

Fisher's Exact Test $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell (1,1) Frequency (F) 19
Left-sided Pr <= F 1.0000 Right-sided Pr >= F $\quad 1.536 \mathrm{E}-04$ Table Probability (P) $1.373 \mathrm{E}-04$ Two-sided Pr <= P 2.444E-04

Sample Size $=63$

Statistics for Table of Number_home by D20 Statistic DF Value Prob fffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square $1 \quad 1.1429 \quad 0.2850$

| Likelihood Ratio Chi-Square | 1 | 1.1551 | 0.2825 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 1 0.6429 0.4227

| Mantel-Haenszel Chi-Square 1.1238 | 0.2891 |
| :--- | :--- | :--- | :--- | :--- |

Phi Coefficient -0.1380
Contingency Coefficient 0.1367
Cramer's V -0.1380
Fisher's Exact Test

| fffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 8 |
| Left-sided Pr <= F | 0.2119 |
| Right-sided Pr >= F | 0.9099 |
| Table Probability (P) | 0.1218 |
| Two-sided Pr <= P | 0.4231 |

Effective Sample Size $=60$ Frequency Missing = 1
Table of Number_home by D21

Statistics for Table of Number_home by D21
Statistic DF Value Prob fffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square $1 \quad 0.47470 .4908$ Likelihood Ratio Chi-Square 1 0.4841 0.4866 $\begin{array}{llll}\text { Continuity Adj. Chi-Square } & 1 & 0.1331 & 0.7153\end{array}$ Mantel-Haenszel Chi-Square 1 0.4673 0.4942

| Phi Coefficient | 0.0861 |
| :--- | ---: |
| Contingency Coefficient | 0.0858 |
| Cramer's V | 0.0861 |
| Fisher's Exact Test |  |
| ffffffffffffffffffffffffffffffffffff |  |
| Cell (1,1) Frequency (F) | 23 |
| Left-sided Pr <= F | 0.8444 |
| Right-sided Pr >= F | 0.3619 |
| Table Probability (P) | 0.2063 |
| Two-sided Pr <= P | 0.5374 |

Effective Sample Size $=64$
Frequency Missing = 1

Table of Number_home by D22
Frequency,
Percent Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ’ffffffff^ffffffff^
0-2 , 4 , 17
, 7.55 , 32.08 , 39.62
, 19.05 , 80.95 ,
, 50.00 , 37.78 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
$>2, \quad 4, \quad 28, \quad 32$
, $7.55,52.83,60.38$
, 12.50 , 87.50 ,
, 50.00, 62.22,
fffffffff $f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$

| Total | 8 | 45 | 53 |
| :--- | ---: | ---: | ---: |
|  | 15.09 | 84.91 | 100.00 |

Statistics for Table of Number_home by D22

| Statistic | DF | Value | Prob |
| :---: | :---: | :---: | :---: |
| $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |
| Chi-Square | 1 | 0.4241 | 0.5149 |
| Likelihood Ratio Chi-Square | 1 | 0.4166 | 0.5186 |
| Continuity Adj. Chi-Square | 1 | 0.0671 | 0.795 |
| Mantel-Haenszel Chi-Square | 1 | 0.4161 | 0.5189 |
| Phi Coefficient |  | 0.0895 |  |
| Contingency Coefficient |  | 0.0891 |  |
| Cramer's V 0.0895 |  |  |  |
| ARNING: $50 \%$ of the cells than 5. Chi-Squar |  | ted coun be a val | $\begin{aligned} & \text { less } \\ & \text { test. } \end{aligned}$ |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 4 Left-sided Pr <= F 0.8513 Right-sided Pr >= F 0.3915 Table Probability (P) 0.2428 Two-sided Pr <= P 0.6978

Effective Sample Size $=53$
Frequency Missing = 3

## Table of Number home by D23

Frequency,
Percent
Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff^ffffffff^ffffffff 0-2 , 7 , 19 , 26
, 10.94 , 29.69 , 40.63
, 26.92 , 73.08 ,
, 53.85 , 37.25 ,

| ffffffffff^ffffffff^ffffffff^ |  |  |  |
| :---: | :---: | :---: | :---: |
| >2 , | 6 | 32 | 38 |
|  | 9.38 | , 50.00 | 59.38 |
|  | 15.79 | , 84.21 |  |
|  | 46.15 | 62.75 |  |
| $f f f f f f f f f^{\wedge} f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$ |  |  |  |
| Total | 13 | 51 | 64 |
|  | 20.31 | 79.69 | 100.00 |

Statistics for Table of Number_home by D23


Table of Number_home by D24
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff fffffffff ffffffff^
0-2 , 10,17 , 27
, $16.13,27.42,43.55$
, 37.04 , 62.96 ,
, 62.50 , 36.96 ,
fffffffff ffffffff^ffffffff^
$>2$, $6, \quad 35$
, $9.68,46.77,56.45$
, 17.14 , 82.86 ,
, 37.50 , 63.04 ,
fffffffff $f f f f f f f f^{\wedge} f f f f f f f f$ ^
Total $16 \quad 46$

Statistics for Table of Number home by D24

| Statistics for Table of |  | Number_home by D24 |  |
| :--- | :---: | :---: | ---: |
| Statistic | DF | Value | Prob |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 3.1506 | 0.0759 |
| Likelihood Ratio Chi-Square | 1 | 3.1425 | 0.0763 |
| Continuity Adj. Chi-Square | 1 | 2.1973 | 0.1383 |
| Mantel-Haenszel Chi-Square | 1 | 3.0998 | 0.0783 |
| Phi Coefficient |  | 0.2254 |  |
| Contingency Coefficient |  | 0.2199 |  |
| Cramer's V |  | 0.2254 |  |

Fisher's Exact Test

| ffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 10 |
| Left-sided Pr <= F | 0.9807 |
| Right-sided Pr >= F | 0.0694 |
| Table Probability (P) | 0.0501 |
| Two-sided Pr <= P | 0.0885 |
| Sample Size = 62 |  |



Statistics for Table of Number_home by D25

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 2.7089 | 0.0998 |
| Likelihood Ratio Chi-Square | 1 | 2.6874 | 0.1011 |
| Continuity Adj. Chi-Square | 1 | 1.8848 | 0.1698 |
| Mantel-Haenszel Chi-Square | 1 | 2.6696 | 0.1023 |
| Phi Coefficient |  | 0.1981 |  |
| Contingency Coefficient |  | 0.1944 |  |
| Cramer's V |  | 0.1981 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency ( $F$ ) 11
Left-sided Pr <= F 0.9722

Right-sided Pr >= F 0.0853
Table Probability (P) 0.0575
Two-sided Pr <= P 0.1118
Sample Size = 69

Table of Years_in_house by A1
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
,gree
fffffffff^ffffffff^ffffffff^
1-6 , $15, \quad 25$, 40
, 19.23 , 32.05 , 51.28
, 37.50 , 62.50 ,
, 50.00 , 52.08 ,
fffffffff^ffffffff^ffffffff^
>6 , 15 , 23 , 38
, 19.23 , 29.49 , 48.72
, 39.47 , 60.53,
, 50.00 , 47.92 ,
fffffffff^ffffffff^ffffffff^
$\begin{array}{llll}\text { Total } & 30 & 48 & 78\end{array}$
$38.46 \quad 61.54 \quad 100.00$

Statistics for Table of Years_in_house by A1

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0321 | 0.8579 |
| Likelihood Ratio Chi-Square | 1 | 0.0321 | 0.8579 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0317 | 0.8588 |
| Phi Coefficient |  | -0.0203 |  |
| Contingency Coefficient |  | 0.0203 |  |
| Cramer's V |  | -0.0203 |  |

isher's Exact Test

| ffffffffffffffffffffffffffffffffffff |  |
| :--- | ---: |
| Cell (1,1) Frequency (F) | 15 |
| Left-sided Pr <= F | 0.5212 |
| Right-sided Pr >= F | 0.6598 |
| Table Probability (P) | 0.1810 |
| Two-sided Pr <= P | 1.0000 |

Sample Size = 78

Table of Years_in_house by A2
Frequency, Percent , Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff^ffffffff^ffffffff^
$1-6$, $12, \quad 28$,
, 15.58 , 36.36 , 51.95
, 30.00 , 70.00 ,
, 42.86 , 57.14 ,
fffffffff ${ }^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f$
$>6 \quad, \quad 16, \quad 21$, 37
, 20.78 , $27.27,48.05$
, 43.24, 56.76,
, 57.14 , 42.86 , ffffffffff^ffffffff^ffffffff^ Total $28 \quad 49$
$36.36 \quad 63.64 \quad 100.00$
Statistics for Table of Years_in_house by A2

|  | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| Statistic | 1 | 1.4568 | 0.2274 |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.4599 | 0.2269 |
| Likelihood Ratio Chi-Square | 1 | 0.9407 | 0.3321 |
| Continuity Adj. Chi-Square | 1 | 1.4378 | 0.2305 |
| Mantel-Haenszel Chi-Square | 1 | -0.1375 |  |
| Phi Coefficient |  | 0.1363 |  |
| Contingency Coefficient |  | -0.1375 |  |
| Cramer's V |  |  |  |

Fisher's Exact Test
ffffffffffffffffffffffffffffffffff
Cell (1,1) Frequency (F) 12

Left-sided $\operatorname{Pr}<=\mathrm{F} \quad 0.1661$
Right-sided Pr >= F 0.9258
Table Probability (P) 0.0919
Two-sided Pr <= P 0.2463
Sample Size = 77

Table of Years_in_house by A3
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff ffffffff^ffffffff
1-6 , 19 , 39



Statistics for Table of Years in house by A5

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0216 | 0.8832 |
| Likelihood Ratio Chi-Square | 1 | 0.0216 | 0.8831 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0213 | 0.8840 |
| Phi Coefficient |  | 0.0171 |  |
| Contingency Coefficient |  | 0.0171 |  |
| Cramer's V |  | 0.0171 |  |

Fisher's Exact Test
fffffffffffffffffffffffffffffffffff Cell (1,1) Frequency (F) 10 Left-sided Pr <= F 0.6607 Right-sided Pr >= F $\quad 0.5511$ Table Probability (P) 0.2118 Two-sided Pr <= P 1.0000

Effective Sample Size = 74
Frequency Missing = 1

Table of Years_in_house by B6 Frequency, Percent Row Pct Col Pct ,Disagree,Agree - , Total , - Stron,Strongly, ,gly Disa, Agree , , gree
ffffffffff „ffffffff ${ }^{\prime}$ ffffffff^
1-6 , $16, \quad 25$, 41
, $20.78,32.47,53.25$
, 39.02 , 60.98 ,
, 48.48 , 56.82
ffffffffff $f f f f f f f f^{\wedge} f f f f f f f f$
$>6 \quad 17,19$, 36
, $22.08,24.68,46.75$
, 47.22, 52.78,
, 51.52 , 43.18
ffffffffff' ffffffff^ffffffff

| Total | 33 | 44 | 77 |
| :--- | ---: | ---: | ---: |
|  | 42.86 | 57.14 | 100.00 |

Statistics for Table of Years_in_house by B6
Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 10.52600 .4683

| Likelihood Ratio Chi-Square | 1 | 0.5261 | 0.4682 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 10.24450 .6209

| Mantel-Haenszel Chi-Square | 1 |
| :--- | ---: |
| Phi Coefficient | 0.5192 |
| Contingency Coefficient | -0.0827 |
| Cramer's V | 0.0824 |
|  | -0.0827 |
| Fisher's Exact Test |  |
| fffffffffffffffffffffffffffffffff |  |
| Cell (1,1) Frequency (F) | 16 |
| Left-sided Pr <= F | 0.3105 |
| Right-sided Pr >= F | 0.8304 |
| Table Probability (P) | 0.1409 |
| Two-sided Pr <= P | 0.4973 |

Sample Size = 77


Statistics for Table of Years_in_house by B7

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0559 | 0.8130 |
| Likelihood Ratio Chi-Square | 1 | 0.0560 | 0.8129 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0551 | 0.8144 |
| Phi Coefficient |  | 0.0287 |  |
| Contingency Coefficient |  | 0.0287 |  |
| Cramer's V |  | 0.0287 |  |

Fisher's Exact Test
ffffffffffffffffffffffffffffffffffff Cell $(1,1)$ Frequency ( $F$ ) 15 Left-sided Pr <= F 0.6863 Right-sided Pr >= F 0.5068 Table Probability (P) 0.1931 Two-sided Pr <= P 1.0000

Sample Size = 68

Table of Years_in_house by B8
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree , , gree
fffffffff^ffffffff^ffffffff^
1-6 , 11 , 25 , 36
, $15.71,35.71,51.43$
, 30.56 , 69.44 ,
, 40.74 , 58.14 ,
ffffffffff fffffffff ffffffff^
>6 , 16 , 18 , 34


Statistics for Table of Years_in_house by B8

|  | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| Statistic | 1 | 2.0100 | 0.1563 |
| ffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 2.0188 | 0.1554 |
| Likelihood Ratio Chi-Square | 1 | 1.3738 | 0.2412 |
| Continuity Adj. Chi-Square | 1 | 1.9812 | 0.1593 |
| Mantel-Haenszel Chi-Square | 1 | -0.1695 |  |
| Phi Coefficient |  | 0.1671 |  |
| Contingency Coefficient |  | -0.1695 |  |
| Cramer's V |  |  |  |


| Fisher's Exact Test |  |
| :--- | ---: |
| fffffffffffffffffffffffffffffffffff |  |
| Cell (1,1) Frequency (F) | 11 |
| Left-sided Pr <= F | 0.1205 |
| Right-sided Pr >= F | 0.9522 |
| Table Probability (P) | 0.0727 |
| Two-sided Pr <= P | 0.2198 |
| Sample Size = 70 |  |

Table of Years_in_house by B9
Frequency, Percent Row Pct , Col Pct ,'Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
ffffffffff ffffffff^ffffffff
$1-6 \quad 13, \quad 26$, 39
, $17.33,34.67$, 52.00
, 33.33 , 66.67 ,
, 50.00 , 53.06 ,
fffffffff^ffffffff^ffffffff
$>6 \quad, \quad 13, \quad 23, \quad 36$
, $17.33,30.67,48.00$
, 36.11 , 63.89 ,
, 50.00 , 46.94 , ffffffffff^ffffffff^ffffffff Total $26 \quad 49$
$34.67 \quad 65.33 \quad 100.00$
Statistics for Table of Years_in_house by B9

| Statistics for Table of Years_in_house by B9 |  |  |  |
| :--- | :---: | :---: | ---: |
| Statistic | DF | Value | Prob |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0638 | 0.8006 |
| Likelihood Ratio Chi-Square | 1 | 0.0638 | 0.8007 |
| Continuity Adj. Chi-Square | 1 | 0.0001 | 0.9923 |
| Mantel-Haenszel Chi-Square | 1 | 0.0629 | 0.8019 |
| Phi Coefficient |  | -0.0292 |  |
| Contingency Coefficient |  | 0.0291 |  |
| Cramer's V |  | -0.0292 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 13 Left-sided Pr <= F 0.4957 Right-sided Pr >= F $\quad 0.6899$ Table Probability (P) 0.1856 Two-sided Pr <= P 0.8133

Effective Sample Size $=75$
Frequency Missing = 2

Table of Years_in_house by B10 Frequency,


Statistics for Table of Years_in_house by B10

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.9146 | 0.3389 |
| Likelihood Ratio Chi-Square | 1 | 0.9173 | 0.3382 |
| Continuity Adj. Chi-Square | 1 | 0.4623 | 0.4966 |
| Mantel-Haenszel Chi-Square | 1 | 0.9023 | 0.3422 |
| Phi Coefficient |  | -0.1112 |  |
| Contingency Coefficient |  | 0.1105 |  |
| Cramer's V |  | -0.1112 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 7 Left-sided Pr <= F 0.2485 Right-sided Pr >= F 0.8913 Table Probability (P) 0.1398 Two-sided Pr <= P 0.4124

Effective Sample Size = 74
Frequency Missing = 1

Table of Years_in_house by B11
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree , ,gree
ffffffffff fffffffff ffffffff^
1-6 $\quad 3,38$
, $6.67,44.00,50.67$
, 13.16 , 86.84 ,
, 35.71 , 54.10 ,
fffffffff^ffffffff^ffffffff^
>6 , 9 , 28 , 37
, $12.00,37.33,49.33$
, 24.32 , 75.68 ,
, 64.29 , 45.90 , ffffffffff ffffffff^ffffffff^ Total $14 \quad 61 \quad 75$
$18.67 \quad 81.33 \quad 100.00$

Statistics for Table of Years_in_house by B11
Statistic DF Vrob ffffffffffffffffffffffffffffffffffffffffffffffffffffff
Chi-Square 1
Likelihood Ratio Chi-Square 1 1.5559 0.2123

| Continuity Adj. Chi-Square | 1 | 0.8920 | 0.3449 |
| :--- | :--- | :--- | :--- | :--- |


| Mantel-Haenszel Chi-Square | 1 | 1.5191 | 0.2178 |
| :--- | :--- | :--- | :--- | :--- |

Phi Coefficient
-0.1433
Contingency Coefficient $\quad 0.1418$
Cramer's V
-0.1433

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency (F) 5

| Left-sided Pr <= F | 0.1727 |
| :--- | :--- |
| Right-sided Pr >= F | 0.9387 |
| Table Probability (P) | 0.1114 |

Table Probability (P) 0.1114
Two-sided Pr <= P 0.2486

Sample Size = 75

Table of Years_in_house by B12
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
fffffffff ffffffff^ffffffff
1-6 , 12 , 39
, $15.79,35.53,51.32$
, 30.77 , 69.23 ,
, 54.55 , 50.00 ,
ffffffffff $f f f f f f f f$ ^ffffffff
$>6 \quad 10, \quad 27, \quad 37$
, $13.16,35.53,48.68$
, 27.03 , 72.97 ,
, 45.45 , 50.00 ,
$f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
Total $22 \quad 54$

Statistics for Table of Years_in_house by B12

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.1293 | 0.7192 |
| Likelihood Ratio Chi-Square | 1 | 0.1294 | 0.7190 |
| Continuity Adj. Chi-Square | 1 | 0.0113 | 0.9152 |
| Mantel-Haenszel Chi-Square | 1 | 0.1276 | 0.7210 |
| Phi Coefficient |  | 0.0412 |  |
| Contingency Coefficient |  | 0.0412 |  |
| Cramer's V |  | 0.0412 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell (1,1) Frequency (F) 12 Left-sided Pr <= F 0.7294 Right-sided Pr >= F 0.4581 Table Probability (P) 0.1875 Two-sided Pr <= P 0.8028

Sample Size = 76

Table of Years_in_house by B13 Frequency, Percent Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
,gree
ffffffffff ffffffff ffffffff^
1-6 , 16 , 42
, 21.33 , 34.67 , 56.00
, 38.10 , 61.90 ,
, 50.00 , 60.47 ,
fffffffff $f f f f f f f f$ ^ffffffff
>6 , 16 , 17 , 33
, $21.33,22.67,44.00$
, 48.48, 51.52,
, 50.00 , 39.53 ,
$f f f f f f f f f^{\wedge} f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$

| Total | 32 | 43 | 75 |
| :--- | ---: | ---: | ---: |
|  | 42.67 | 57.33 | 100.00 |

Statistics for Table of Years_in_house by B13
Statistic DF Value Prob fffffffffffffffffffffffffffffffffffffffffffffffffffffffff

| Chi-Square | 1 | 0.8155 | 0.3665 |
| :--- | :--- | :--- | :--- |

Likelihood Ratio Chi-Square 1 0.8151 0.3666

| Continuity Adj. Chi-Square | 1 | 0.4460 | 0.5042 |
| :--- | :--- | :--- | :--- |


| Mantel-Haenszel Chi-Square 10.8046 | 0.3697 |
| :--- | :--- | :--- | :--- |

Phi Coefficient
-0. 1043
Contingency Coefficient 0.1037
Cramer's V -0.1043

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$

| Cell (1,1) Frequency (F) | 16 |
| :--- | ---: |
| Left-sided Pr <= F | 0.2520 |
| Right-sided Pr >= F | 0.8725 |
| Table Probability (P) | 0.1245 |
| Two-sided Pr <= P | 0.4811 |
| Sample Size = 75 |  |

Table of Years_in_house by C14
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ’ffffffff ffffffff^
1-6 , 16 , 26 , 42
, $20.25,32.91,53.16$
, 38.10 , 61.90 ,
, 50.00 , 55.32 ,
fffffffff^ffffffff^ffffffff
$>6 \quad, \quad 16, \quad 21$, 37
, $20.25,26.58,46.84$
, 43.24 , 56.76 ,
, 50.00 , 44.68 ,
fffffffff^ffffffff^ffffffff

| Total | 32 | 47 | 79 |
| :--- | ---: | ---: | ---: |
|  | 40.51 | 59.49 | 100.00 |

Statistics for Table of Years_in_house by C14
Statistic DF Value Prob $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Chi-Square $1 \quad 0.21630 .6419$
$\begin{array}{lllll}\text { Likelihood Ratio Chi-Square } & 1 & 0.2163 & 0.6419\end{array}$

| Continuity Adj. Chi-Square | 1 | 0.0554 | 0.8139 |
| :--- | :--- | :--- | :--- | :--- |

Mantel-Haenszel Chi-Square 10.21360 .6440
Phi Coefficient
$-0.0523$
Contingency Coefficient 0.0523
Cramer's V
$-0.0523$

Fisher's Exact Test
fffffffffffffffffffffffffffffffffff Cell $(1,1)$ Frequency (F) 16
Left-sided Pr <= F 0.4067
Right-sided Pr >= F 0.7564

Table Probability (P) 0.1631
Two-sided Pr <= P 0.6543

Sample Size = 79

Table of Years_in_house by C15
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree

| fffffffff^ffffffff(ffffffff |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 1-6 | 5 | 35 | 40 |
|  | 6.58 | 46.05 | 52.63 |
|  | 12.50 | 87.50 |  |
|  | 55.56 | 52.24 |  |
| $f f f f f f f f f{ }^{\wedge} f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$ |  |  |  |
| >6 | 4 | 32 | 36 |
|  | 5.26 | , 42.11 | 47.37 |
|  | 11.11 | , 88.89 |  |
|  | 44.44 | 47.76 |  |
| $f f f f f f f f f^{\wedge} \mathrm{fffffffff}$ ^ffffffff^ |  |  |  |
| Total | 9 | 67 | 76 |
|  | 11.84 | 88.16 | 100.0 |

Statistics for Table of Years_in_house by C15 Statistic DF Value Prob $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Chi-Square $100.0350 \quad 0.8516$
Likelihood Ratio Chi-Square 1 0.0351 0.8514

| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| :--- | :--- | :--- | :--- | :--- |

Mantel-Haenszel Chi-Square 1 0.0345 0.8525 Phi Coefficient 0.0215 Contingency Coefficient 0.0215 Cramer's V 0.0215

WARNING: $50 \%$ of the cells have expected counts less than 5 . Chi-Square may not be a valid test.

Fisher's Exact Test
ffffffffffffffffffffffffffffffffff
Cell $(1,1)$ Frequency (F) 5
Left-sided Pr <= F 0.7038
Right-sided Pr >= F 0.5682
Table Probability (P) 0.2721
Two-sided Pr <= P 1.0000
Sample Size = 76

Table of Years_in_house by C16
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ${ }^{\prime} f f f f f f f f^{\wedge}$ fffffffff
1-6 , 38 , 41
, $3.90,49.35,53.25$
, 7.32 , 92.68 ,
, 60.00 , 52.78 ,
$f f f f f f f f f^{\wedge} f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
>6 , 34 , 36
, $2.60,44.16,46.75$
, 5.56 , 94.44 ,
, 40.00 , 47.22
$f f f f f f f f f^{\wedge} f f f f f f f f f^{\wedge} f f f f f f f f^{\wedge}$
Total $\quad 5 \quad 72$
Statistics for Table of Years_in_house by C16
Statistic DF Value Prob
ffffffffffffffffffffffffffffffffffffffffffffffffffffff
Chi-Square $\quad 1 \quad 0.0980 \quad 0.7543$
Likelihood Ratio Chi-Square 10.09880 .7533

| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| :--- | :--- | :--- | :--- |

Mantel-Haenszel Chi-Square 1 0.0967 0.7558
Phi Coefficient
0.0357

Contingency Coefficient 0.0356
Cramer's V 0.0357
WARNING: $50 \%$ of the cells have expected counts less than 5. Chi-Square may not be a valid test.


Statistics for Table of Years_in_house by C17 Statistic DF Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square 0.2586 $\begin{array}{lllll}\text { Likelihood Ratio Chi-Square } & 1 & 0.2587 & 0.6110\end{array}$ $\begin{array}{lllll}\text { Continuity Adj. Chi-Square } & 1 & 0.0124 & 0.9114\end{array}$ $\begin{array}{llll}\text { Mantel-Haenszel Chi-Square } 1 & 0.2551 & 0.6135\end{array}$ Phi Coefficient
-0.0587 Contingency Coefficient 0.0586
Cramer's V
-0.0587
WARNING: 50\% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ Cell $(1,1)$ Frequency (F) 3 Left-sided Pr <= F 0.4544 Right-sided Pr >= F 0.8168 Table Probability (P) 0.2712 Two-sided Pr <= P

Sample Size = 75

Table of Years_in_house by C18 Frequency,
Percent
Row Pct Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff ’ffffffff^ffffffff*
1-6 , 4 , 37
, $5.13,47.44$,
, 9.76 , 90.24 ,
, 50.00 , 52.86 ,
fffffffff^ffffffff^ffffffff
$>6 \quad, \quad 4,33,37$
, $5.13,42.31,47.44$
, 10.81 , 89.19 ,
, $50.00,47.14$,
ffffffffff ${ }^{\prime} f f f f f f f f^{\wedge} f f f f f f f f{ }^{\prime}$
Total $\quad 8 \quad 8 \quad 70 \quad 78$

Statistics for Table of Years_in_house by C18

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0235 | 0.8782 |
| Likelihood Ratio Chi-Square | 1 | 0.0235 | 0.8782 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0232 | 0.8789 |
| Phi Coefficient |  | -0.0174 |  |
| Contingency Coefficient |  | 0.0174 |  |
| Cramer's V |  | -0.0174 |  |

WARNING: $50 \%$ of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Fisher's Exact Test
ffffffffffffffffffffffffffffffffff
Cell (1,1) Frequency (F) 4

Left-sided Pr <= F 0.5844
Right-sided Pr >= F 0.7009
Table Probability (P) 0.2853
Two-sided Pr <= P 1.0000
Sample Size = 78

Table of Years_in_house by D19
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron, Strongly,
,gly Disa, Agree ,
, gree
fffffffff ffffffff^ffffffff
1-6 , 18 , 19 , 37
, $25.71,27.14,52.86$
, 48.65 , 51.35 ,
, $60.00,47.50$
ffffffffff ffffffff^ffffffff^
$>6 \quad 12, \quad 21$, 33
, $17.14,30.00,47.14$
, 36.36 , 63.64 ,
, 40.00 , 52.50 ,
$f f f f f f f f f f^{\wedge} f f f f f f f f f^{\wedge} f f f f f f f f$ ^

| Total | 30 | 40 | 70 |
| :--- | ---: | ---: | ---: |
|  | 42.86 | 57.14 | 100.00 |

Statistics for Table of Years_in_house by D19

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| ffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 1.0749 | 0.2998 |
| Likelihood Ratio Chi-Square | 1 | 1.0795 | 0.2988 |
| Continuity Adj. Chi-Square | 1 | 0.6318 | 0.4267 |
| Mantel-Haenszel Chi-Square | 1 | 1.0596 | 0.3033 |
| Phi Coefficient |  | 0.1239 |  |
| Contingency Coefficient |  | 0.1230 |  |
| Cramer's V |  | 0.1239 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency ( $F$ ) 18
Left-sided Pr <= F 0.8997
Right-sided Pr >= F 0.2136
Table Probability (P) 0.1133
Two-sided Pr <= P 0.3406

Sample Size = 70

Table of Years_in_house by D20
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,


Fisher's Exact Test ffffffffffffffffffffffffffffffffff Cell (1,1) Frequency (F) 28
Left-sided Pr <= F 0.2821
Right-sided Pr >= F 0.8765
Table Probability (P) 0.1586
Two-sided Pr <= P 0.5642

Effective Sample Size = 74
Frequency Missing = 1

Table of Years_in_house by D22
Frequency,
Percent
Row Pct
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,

$1-6$, 50,36
, 8.20 , 50.82
59.02
, 13.89 , 86.11 ,
, 50.00 , 60.78 ,
fffffffff^ffffffff^ffffffff^
$>6$, $5,20,25$
, $8.20,32.79,40.98$
, 20.00 , 80.00 ,
, 50.00 , 39.22 ,
fffffffff ffffffff^ffffffff
Total $10 \quad 51$

Statistics for Table of Years_in_house by D22

| Statistic | DF | Value | Prob |
| :--- | :---: | :---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.4020 | 0.5261 |
| Likelihood Ratio Chi-Square | 1 | 0.3968 | 0.5287 |
| Continuity Adj. Chi-Square | 1 | 0.0798 | 0.7776 |
| Mantel-Haenszel Chi-Square | 1 | 0.3954 | 0.5295 |
| Phi Coefficient |  | -0.0812 |  |
| Contingency Coefficient |  | 0.0809 |  |
| Cramer's V |  | -0.0812 |  |

WARNING: $25 \%$ of the cells have expected counts less
than 5. Chi-Square may not be a valid test.
Fisher's Exact Test
fffffffffffffffffffffffffffffffffff
Cell (1,1) Frequency (F) 5
Left-sided Pr <= F 0.3843
Right-sided Pr >= F 0.8378
Table Probability (P) 0.2221
Two-sided Pr <= P 0.7268
Effective Sample Size $=61$ Frequency Missing = 3

Table of Years_in_house by D23
Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
,gree
fffffffff 'ffffffff^ffffffff
1-6 , 7 , 34
, $9.46,45.95,55.41$
, 17.07 , 82.93 ,
, 50.00 , 56.67 ,
ffffffffff fffffffff ffffffff^
$>6 \quad, \quad 7, \quad 26$, 33
, $9.46,35.14,44.59$
, 21.21 , 78.79 ,

| 50.00, |  |  | 43.33, |
| :--- | ---: | ---: | ---: |
| fffffffff ${ }^{\prime}$ ffffffff^fffffffff |  |  |  |
| Total | 14 | 60 | 74 |
|  | 18.92 | 81.08 | 100.00 |

Statistics for Table of Years_in_house by D23

| Statistic |  | Value | ob |
| :---: | :---: | :---: | :---: |
| $f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$ |  |  |  |
| Chi-Square | 1 | 0.2042 | 0.6514 |
| Likelihood Ratio Chi-Square | 1 | 0.2033 | 0.6521 |
| Continuity Adj. Chi-Square | 1 | 0.0235 | 0.8782 |
| Mantel-Haenszel Chi-Square | 1 | 0.2014 | 0.6536 |
| Phi Coefficient |  | -0.0525 |  |
| Contingency Coefficient |  | 0.0525 |  |
| Cramer's V |  | -0.0525 |  |

## Fisher's Exact Test

ffffffffffffffffffffffffffffffffffff Cell (1,1) Frequency (F) 7 Left-sided Pr <= F 0.4367 Right-sided Pr >= F 0.7739

Table Probability (P) 0.2106
Two-sided Pr <= P 0.7679

Sample Size = 74

Table of Years_in_house by D24 Frequency,
Percent
Row Pct ,
Col Pct ,Disagree,Agree - , Total
, - Stron,Strongly,
,gly Disa, Agree ,
, gree
ffffffffff 'fffffffffffffffff^
1-6 , 5 , 32
, $6.94,44.44,51.39$
, 13.51 , 86.49 ,
, 26.32 , 60.38 ,
fffffffff^ffffffff^ffffffff
$>6 \quad 14$, 21 , 35
, 19.44 , 29.17 , 48.61
, 40.00 , 60.00 ,
, 73.68 , 39.62 ,
ffffffffff fffffffff ffffffff^

| Total | 19 | 53 | 72 |
| :--- | ---: | ---: | ---: |
|  | 26.39 | 73.61 | 100.00 |

Statistics for Table of Years_in_house by D24
Statistic DF - Value Prob ffffffffffffffffffffffffffffffffffffffffffffffffffffffff Chi-Square $1 \quad 6.49560 .0108$

| Likelihood Ratio Chi-Square | 1 | 6.6830 | 0.0097 |
| :--- | :--- | :--- | :--- | :--- |

Continuity Adj. Chi-Square 1 5.2037 0.0225

| Mantel-Haenszel Chi-Square | 1 | 6.4054 | 0.0114 |
| :--- | :--- | :--- | :--- | :--- |

Phi Coefficient
-0. 3004
Contingency Coefficient 0.2877
Cramer's V
$-0.3004$
Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell (1,1) Frequency (F) 5

| Left-sided $\mathrm{Pr}<=\mathrm{F}$ | 0.0107 |
| :--- | :--- |
| Right-sided Pr >= F | 0.9979 |
| Table Probability (P) | 0.0086 |

Table Probability (P) 0.0086
Two-sided Pr <= P 0.0157
Sample Size = 72

Table of Years_in_house by D25
Frequency,
Percent
Row Pct ,


Statistics for Table of Years_in_house by D25

| Statistic | DF | Value | Prob |
| :--- | :---: | ---: | ---: |
| fffffffffffffffffffffffffffffffffffffffffffffffffffffffff |  |  |  |
| Chi-Square | 1 | 0.0071 | 0.9331 |
| Likelihood Ratio Chi-Square | 1 | 0.0071 | 0.9331 |
| Continuity Adj. Chi-Square | 1 | 0.0000 | 1.0000 |
| Mantel-Haenszel Chi-Square | 1 | 0.0070 | 0.9335 |
| Phi Coefficient |  | -0.0094 |  |
| Contingency Coefficient |  | 0.0094 |  |
| Cramer's V |  | -0.0094 |  |

Fisher's Exact Test
$f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f f$
Cell $(1,1)$ Frequency (F) 11
Left-sided $\operatorname{Pr}<=\mathrm{F} \quad 0.5668$
Right-sided Pr >= F 0.6333
Table Probability (P) 0.2002
Two-sided Pr <= P 1.0000
Sample Size = 79

## Factor analysis






Final Communality Estimates: Total $=10.150395$
$\begin{array}{rrrrrrr}\text { A1 } & \text { A2 } & \text { A3 } & \text { A4 } & \text { A5 } & \text { B6 } & \text { B7 } \\ 0.38869685 & 0.59635284 & 0.40911224 & 0.55777806 & 0.52678754 & 0.58196032 & 0.68527977 \\ \text { B8 } & \text { B9 } & \text { B10 } & \text { B11 } & \text { B12 } & \text { B13 } & \text { C14 }\end{array}$

| 0.4519 | 91389 | 0.11426121 | 0.44565775 | 0.39751167 | 0.25960130 | 0.32488572 | 0.30309800 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C15 | C16 | C17 | C18 | D19 | D20 | D21 |
| 0.6344 | 45632 | 0.44738740 | 0.58956907 | 0.13825322 | 0.21240654 | 0.18371507 | 0.19818182 |
|  |  |  | 22 | D23 | D24 | D25 |  |
|  |  | 0.33524 | 97 0.3798 | 22450.4 | 8569678 0 | 0.50276277 |  |
|  |  |  | Scoring Coeffic | ients Estimat | d by Regressi | ion |  |
|  | Factor1 | Squared Fact | ltiple Correla | tions of the tor 3 | Variables with Factor4 | h Each Factor Factor5 | Factor6 |
| 0.82 | 2376704 | 0.78471 | $019 \quad 0.7878$ | 32910.7 | 27803790 | 0.70719196 | 0.73933763 |
|  |  |  | Standardiz | ed Scoring Co | fficients |  |  |
|  |  | Factor1 | Factor2 | Factor3 | Factor4 | Factor5 | Factor6 |
| C15 | C15 | 0.37561 | 0.02955 | -0.02809 | -0.12216 | -0.11141 | -0.01479 |
| C17 | C17 | 0.29635 | 0.04835 | 0.03787 | 0.10128 | 0.03187 | 0.04606 |
| C16 | C16 | 0.21855 | -0.05858 | -0.04393 | 0.10746 | -0.04599 | 0.01649 |
| D21 | D21 | -0.07196 | 0.03301 | -0.00531 | -0.08449 | 0.10019 | 0.01617 |
| D25 | D25 | -0.10776 | 0.29501 | -0.04381 | -0.05641 | 0.05672 | 0.04743 |
| D24 | D24 | 0.06757 | 0.27050 | -0.02337 | -0.10505 | 0.03847 | 0.03241 |
| D23 | D23 | 0.03258 | 0.18727 | -0.03460 | -0.02632 | -0.11024 | -0.00179 |
| C14 | C14 | -0.03919 | 0.17303 | 0.06551 | 0.07214 | 0.10026 | 0.01870 |
| D19 | D19 | -0.04604 | 0.10647 | 0.03214 | 0.03464 | 0.04515 | -0.07832 |
| D22 | D22 | -0.00049 | 0.16718 | 0.13100 | -0.11073 | 0.05072 | -0.02661 |
| C18 | C18 | 0.03944 | 0.08940 | -0.02064 | 0.02259 | -0.02623 | -0.01663 |
| B9 | B9 | -0.00167 | -0.06617 | 0.00293 | -0.00494 | 0.05736 | -0.00874 |
| B7 | B7 | -0.04973 | 0.00600 | 0.46921 | 0.09222 | 0.01718 | 0.14336 |
| B6 | B6 | -0.01285 | 0.06300 | 0.32920 | -0.04993 | -0.09480 | -0.22104 |
| B8 | B8 | 0.00187 | -0.08930 | 0.17623 | -0.04277 | -0.00973 | 0.08245 |
| B11 | B11 | 0.02227 | -0.03151 | -0.06313 | 0.28939 | 0.00831 | 0.01734 |
| B10 | B10 | 0.04684 | 0.02943 | -0.01757 | 0.33760 | 0.04170 | -0.08044 |
| B12 | B12 | 0.02727 | -0.01182 | 0.00273 | 0.14972 | 0.07535 | 0.09494 |
| A3 | A3 | 0.14121 | -0.02930 | -0.09549 | -0.22963 | 0.09366 | 0.09307 |
| A2 | A2 | 0.11203 | -0.05123 | -0.06255 | 0.03525 | 0.39629 | -0.15624 |
| A1 | A1 | -0.03877 | 0.08648 | 0.03075 | 0.03374 | 0.27936 | -0.01900 |
| B13 | B13 | -0.04811 | -0.00484 | 0.00039 | 0.00878 | 0.22585 | 0.07949 |
| D20 | D20 | -0.02746 | -0.05674 | -0.05627 | -0.01675 | 0.14588 | 0.01504 |
| A4 | A4 | 0.03428 | -0.03368 | -0.02194 | -0.09184 | 0.10183 | 0.42897 |
| A5 | A5 | -0.00551 | 0.10771 | 0.00594 | 0.12823 | -0.07331 | 0.31436 |
|  |  | Factor1 | Factor2 | Factor3 | Factor4 | Factor5 | Factor6 |
| C15 | 5 C15 | 100 | 0 | 0 | -1 | 0 | 0 |
| C17 | $7 \quad$ C17 | 95 | * 1 | 1 | 0 | - | 0 |
| C16 | 6 C16 | 100 | 0 | 0 | 1 | 0 | 0 |
| D21 | 1 D21 | -33 | 0 | 0 | -18 | 15 | 0 |
| D25 | 5 D25 | -3 | 100 * | -2 | 0 | 0 | 0 |
| D24 | 4 D24 | 5 | 96 * | 0 | -1 | 0 | 0 |
| D23 | 3 D23 | 0 | 80 | -7 | 0 | -6 | 0 |
| C14 | 4 C14 | 0 | 77 * | 1 | 6 | 5 | 0 |
| D19 | 9 D19 | -2 | 63 * | 0 | 2 | 1 | -10 |
| D22 | 2 D22 | -8 | 28 | 18 | -5 | 0 | -1 |
| C18 | 8 C18 | 11 | 75 | 0 | 2 | -1 | 0 |
| B9 | B9 | 0 | -87* | 0 | -1 | 9 | 0 |
| B7 | B7 | 0 | 0 | 100 * | 0 | 0 | 2 |
| B6 | B6 | 1 | 0 | 89 * | 0 | 0 | -6 |
| B8 | B8 | 0 | -8 | 73 * | 0 | 0 | 2 |
| B11 | 1 B11 | 0 | 0 | -1 | 100 | 0 | 0 |
| B10 | 0 B10 | 2 | 4 | 0 | 78 | 0 | -1 |
| B12 | 2 B12 | 0 | 0 | 0 | 48 * | 4 | 18 |
| A3 | A3 | 27 | 0 | 0 | -30 | 6 | 0 |
| A2 | A2 | 7 | -1 | 0 | 0 | 64 * | -8 |
| A1 | A1 | 0 | 6 | 2 | 1 | 84 * | 0 |
| B13 | 3 B13 | 0 | 0 | 0 | 0 | 100 * | 3 |
| D20 | 0 D20 | -1 | -18 | -5 | -3 | 45 * | 0 |
| A4 | A4 | 0 | 0 | 0 | 0 | 0 | 100 * |
| A5 | A5 | -1 | 3 | 0 | 6 | -2 | 62 * |
|  |  |  | Procrustea | n Transformat | ion Matrix |  |  |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 |
|  | 1 | 1.14373425 | -0.0673215 | -0.1216723 | 0.07081482 | -0.0730533 | 0.04453124 |
|  | 2 | -0.0292732 | 1.47059968 | 0.04726441 | -0.0497447 | 0.01191377 | 0.02825909 |
|  | 3 | -0.1275659 | 0.06184607 | 1.14916485 | -0.0513303 | -0.0937874 | -0.024976 |
|  | 4 | 0.06927964 | -0.1655057 | -0.0229071 | 1.03625806 | 0.07497484 | -0.0183588 |
|  | 5 | -0.1304771 | 0.06843601 | -0.1274452 | 0.05105896 | 1.22066441 | 0.03997237 |
|  | 6 | 0.07444524 | 0.06699064 | -0.0306245 | -0.0313994 | 0.02682786 | 0.92017628 |
|  |  |  | Rotation Normalized O | ethod: Promax lique Transfo | $\text { (power }=3 \text { ) }$ rmation Matrix |  |  |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 |
|  | 1 | 0.65219 | -0.12932 | 0.48086 | -0.08345 | 0.21305 | -0.02505 |
|  | 2 | 0.42776 | 0.78635 | -0.15870 | 0.31200 | -0.10309 | -0.01400 |
|  | 3 | -0.08923 | -0.08597 | 0.42570 | 0.56428 | -0.10188 | 0.62327 |
|  | 4 | -0.62646 | 0.31076 | 0.32310 | 0.17518 | 0.72045 | -0.31935 |
|  | 5 | -0.29165 | 0.55295 | 0.42228 | -0.77980 | -0.17452 | 0.39298 |
|  | 6 | 0.17433 | 0.03604 | -0.61846 | -0.05427 | 0.69902 | 0.61986 |


| Inter-Factor Correlations |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Factor1 |  | Factor2 |  | Factor3 |  | Factor4 |  | Factor5 |  | Factor6 |  |
| Factor1 |  | 100 | * | 4 |  | 22 |  | -13 |  | 22 |  | -12 |  |
| Factor2 |  | 4 |  | 100 * |  | -7 |  | 15 |  | -7 |  | -8 |  |
| Factor3 |  | 22 |  | -7 |  | 100 * |  | 2 |  | 21 |  | 3 |  |
| Factor4 |  | -13 |  | 15 |  | 2 |  | 100 | * | -13 |  | 6 |  |
| Factor5 |  | 22 |  | -7 |  | 21 |  | -13 |  | 100 |  | -8 |  |
| Factor6 |  | -12 |  | -8 |  | 3 |  | 6 |  | -8 |  | 100 | * |
|  |  | Rotated Factor Pattern Factor1 Factor2 |  |  |  | (Standardized Regression Coefficients) |  |  |  |  |  | Factor6 |  |
| C15 | C15 | 78 | * | 9 |  | 4 |  | -10 |  | -11 |  | 1 |  |
| C17 | C17 | 73 | * | 9 |  | 8 |  | 15 |  | 4 |  | 5 |  |
| C16 | C16 | 68 | * | -5 |  | -1 |  | 20 |  | -7 |  | 4 |  |
| D21 | D21 | -34 |  | 9 |  | -4 |  | -26 |  | 23 |  | 0 |  |
| D25 | D25 | -21 |  | 66 | * | -14 |  | -6 |  | 0 |  | 8 |  |
| D24 | D24 | 23 |  | 64 | * | -9 |  | -16 |  | 8 |  | 7 |  |
| D23 | D23 | 6 |  | 50 | * | -20 |  | -1 |  | -21 |  | -3 |  |
| C14 | C14 | -4 |  | 46 | * | 10 |  | 20 |  | 20 |  | 8 |  |
| D22 | D22 | 18 |  | 38 |  | 31 |  | -23 |  | 4 |  | -8 |  |
| D19 | D19 | -15 |  | 35 |  | 9 |  | 11 |  | 11 |  | -20 |  |
| C18 | C18 | 19 |  | 29 |  | -1 |  | 10 |  | -7 |  | -1 |  |
| B9 | B9 | -6 |  | -28 |  | 1 |  | -6 |  | 13 |  | -5 |  |
| B7 | B7 | 0 |  | -6 |  | 78 | * | 5 |  | 4 |  | 20 |  |
| B6 | B6 | 4 |  | 4 |  | 71 | * | -10 |  | -10 |  | -30 |  |
| B8 | B8 | 4 |  | -23 |  | 56 | * | -10 |  | 3 |  | 17 |  |
| B11 | B11 | 9 |  | -2 |  | -13 |  | 63 |  | 3 |  | 5 |  |
| B10 | B10 | 19 |  | 12 |  | -8 |  | 62 |  | 7 |  | -13 |  |
| B12 | B12 | 4 |  | -4 |  | 4 |  | 40 |  | 19 |  | 27 |  |
| A3 | A3 | 38 |  | -3 |  | -15 |  | -38 |  | 20 |  | 14 |  |
| A2 | A2 | 23 |  | -15 |  | -8 |  | 2 |  | 60 | * | -29 |  |
| A1 | A1 | -7 |  | 24 |  | 12 |  | 13 |  | 56 | * | -6 |  |
| B13 | B13 | -14 |  | -4 |  | 3 |  | 5 |  | 55 | * | 19 |  |
| D20 | D20 | -11 |  | -20 |  | -18 |  | -10 |  | 32 |  | 0 |  |
| A4 | A4 | 13 |  | -3 |  | 6 |  | -14 |  | 6 |  | 73 |  |
| A5 | A5 | -6 |  | 19 |  | -2 |  | 25 |  | -15 |  | 59 |  |


|  | Reference Axis Correlations |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Factor1 | Factor2 | Factor3 | Factor4 | Factor5 | Factor6 |
| Factor1 | $100 *$ | -8 | -20 | 13 | -16 | 11 |
| Factor2 | -8 | $100 *$ | 8 | -16 | 5 | 8 |
| Factor3 | -20 | 8 | -8 | -18 | -6 |  |
| Factor4 | 13 | -16 | -8 | $100 *$ | 11 | -4 |
| Factor5 | -16 | 5 | -18 | 11 | $100 *$ | 6 |
| Factor6 | 11 | 8 | -6 | -4 | 6 | $100 *$ |





Scoring Coefficients Estimated by Regression

| Factor1 |  | Squared | le Correla | 3 of the | ables with | Factor ctor5 | Factor6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.83928013 |  | 0.79130 | 0.805 |  | 84 | 45917 | 0.74557319 |
| Standardized Scoring Coefficients |  |  |  |  |  |  |  |
|  |  | Factor1 | Factor2 | Factor3 | Factor4 | Factor5 | Factor6 |
| C15 | C15 | 0.36952 | 0.03424 | 0.00070 | -0.13536 | -0.05770 | -0.04379 |
| C17 | C17 | 0.29165 | 0.05488 | 0.07686 | 0.08496 | 0.06453 | 0.02670 |
| C16 | C16 | 0.19795 | -0.04766 | -0.01564 | 0.08878 | -0.02571 | 0.00808 |
| D21 | D21 | -0.05860 | 0.02616 | -0.00939 | -0.08147 | 0.09045 | 0.01391 |
| D25 | D25 | -0.09626 | 0.28924 | -0.06312 | -0.01891 | 0.02271 | 0.03733 |
| D24 | D24 | 0.08094 | 0.26583 | -0.02536 | -0.08039 | 0.03473 | 0.01054 |
| D23 | D23 | 0.02829 | 0.18921 | -0.04723 | -0.00033 | -0.11566 | -0.01097 |
| C14 | C14 | -0.02444 | 0.17044 | 0.06490 | 0.08691 | 0.08790 | 0.01480 |
| D22 | D22 | 0.03139 | 0.15666 | 0.12286 | -0.09482 | 0.06476 | -0.03658 |
| D19 | D19 | -0.03362 | 0.10738 | 0.02589 | 0.04435 | 0.03860 | -0.07886 |
| C18 | C18 | 0.03703 | 0.09263 | -0.02080 | 0.03094 | -0.02795 | -0.02212 |
| B9 | B9 | 0.00145 | -0.06689 | 0.00941 | -0.01607 | 0.06026 | -0.00729 |
| B7 | B7 | -0.00998 | -0.01458 | 0.46541 | 0.09794 | 0.05587 | 0.15749 |
| B6 | B6 | 0.03263 | 0.05524 | 0.30786 | -0.03981 | -0.04471 | -0.21500 |
| B8 | B8 | 0.01607 | -0.10051 | 0.17702 | -0.04953 | 0.01524 | 0.08797 |
| B11 | B11 | -0.00515 | -0.01629 | -0.04727 | 0.28108 | -0.01179 | 0.02584 |
| B10 | B10 | 0.03019 | 0.04785 | 0.00086 | 0.32954 | 0.02850 | -0.07422 |
| B12 | B12 | 0.01769 | -0.00875 | 0.01959 | 0.14216 | 0.06582 | 0.09646 |
| A3 | A3 | 0.14529 | -0.03707 | -0.07595 | -0.24395 | 0.10837 | 0.07191 |
| A2 | A2 | 0.13637 | -0.04548 | -0.01692 | -0.00799 | 0.40300 | -0.17136 |
| A1 | A1 | -0.01324 | 0.08253 | 0.04609 | 0.02661 | 0.26728 | -0.02564 |
| B13 | B13 | -0.03588 | -0.01094 | 0.01510 | -0.00184 | 0.21130 | 0.07704 |
| D20 | D20 | -0.02416 | -0.05805 | -0.04525 | -0.03042 | 0.13553 | 0.01389 |
| A4 | A4 | 0.02220 | -0.05090 | -0.00318 | -0.09397 | 0.08891 | 0.41986 |
| A5 | A5 | -0.03085 | 0.10399 | 0.00614 | 0.15101 | -0.09834 | 0.3150 |

