The Language Competence Survey of Jamaica

DATA ANALYSIS

THE JAMAICAN LANGUAGE UNIT
DEPARTMENT OF LANGUAGE, LINGUISTICS & PHILOSOPHY
FACULTY OF HUMANITIES & EDUCATION
UNIVERSITY OF THE WEST INDIES, MONA

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ACKNOWLEDGEMENTS

The Jamaican Language Unit (JLU) wishes to thank the students of the L331 class who took part in the data collection process, the graduate students who supervised the field work and the office staff and the data entry personnel for their cooperation in making this research project a successful one.

We would also like to especially thank Mr. Michael Yee-Shui who prepared this statistical report of the data analysis.
Table of Contents

List of Tables 4
Executive Summary 5
Sample and Analytical Plan 7
- Profile of the sample 7
- Profile of the Interviewers and Interviews 9
- Data Analysis and Manipulation 10
Data Presentation 12
- Bilingualism 12
- Independent Variables: Region, Urban/Rural, Age, Gender, Occupation 12
- Controlling Variable: Gender of Interviewers 15
- Controlling Variable: Language Used to Initiate Interview 18
Conclusion 21
Appendix 23
- Questionnaire 23
- SPSS output 25
### List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Demographic Variables in the Survey</td>
</tr>
<tr>
<td>Table 2</td>
<td>Structure of the Stratified Sample</td>
</tr>
<tr>
<td>Table 3</td>
<td>Characteristics of Interviewers and Interviews</td>
</tr>
<tr>
<td>Table 4</td>
<td>Bilingualism</td>
</tr>
<tr>
<td>Table 5</td>
<td>Bilingualism by Region</td>
</tr>
<tr>
<td>Table 6</td>
<td>Bilingualism by Urban/Rural</td>
</tr>
<tr>
<td>Table 7</td>
<td>Bilingualism by Age</td>
</tr>
<tr>
<td>Table 8</td>
<td>Bilingualism by Gender</td>
</tr>
<tr>
<td>Table 9</td>
<td>Bilingualism by Occupation</td>
</tr>
<tr>
<td>Table 10</td>
<td>Re-examining Bilingualism by Region, Controlling for the Effects of the Gender of Interviewers</td>
</tr>
<tr>
<td>Table 11</td>
<td>Re-examining Bilingualism by Urban/Rural, Controlling for the Effects of the Gender of Interviewers</td>
</tr>
<tr>
<td>Table 12</td>
<td>Re-examining Bilingualism by Gender, Controlling for the Effects of the Gender of Interviewers</td>
</tr>
<tr>
<td>Table 13</td>
<td>Re-examining Bilingualism by Age, Controlling for the Effects of the Gender of Interviewers</td>
</tr>
<tr>
<td>Table 14</td>
<td>Re-examining Bilingualism by Occupation, Controlling for the Effects of the Gender of Interviewers</td>
</tr>
<tr>
<td>Table 15</td>
<td>Re-examining Bilingualism by Region, Controlling for the Effects of the Language Used to Initiate the Interviews</td>
</tr>
<tr>
<td>Table 16</td>
<td>Re-examining Bilingualism by Urban/Rural, Controlling for the Effects of the Language Used to Initiate the Interviews</td>
</tr>
<tr>
<td>Table 17</td>
<td>Re-examining Bilingualism by Gender, Controlling for the Effects of the Language Used to Initiate the Interviews</td>
</tr>
<tr>
<td>Table 18</td>
<td>Re-examining Bilingualism by Age, Controlling for the Effects of the Language Used to Initiate the Interviews</td>
</tr>
<tr>
<td>Table 19</td>
<td>Re-examining Bilingualism by Occupation, Controlling for the Effects of the Language Used to Initiate the Interviews</td>
</tr>
</tbody>
</table>
Executive Summary

In 2005, the Jamaican Language Unit (JLU) conducted its first Language Attitude Survey of Jamaica (LAS), an island-wide study, to assess the views of Jamaicans towards Patwa (Jamaican Creole) as a language. This year’s study: the Language Competence Survey of Jamaica (LCS) however concentrated on the ability of Jamaicans to ‘code switch’ between both languages, that is Patwa and English. In other words, the 2006 study sought to assess the level of bilingualism that is exhibited by Jamaicans and to delineate some of the characteristics that are important in understanding bilingualism.

The parameters of the sampling methodology were more or less maintained, with one minor modification to one of the stratifying variables used for sampling in the previous year’s study. Specifically, the sample consisted of 1000 Jamaicans, stratified along the variables of region (western and eastern), area (urban and rural), age groups (18-30 years, 31-50 years and 51-80+ years), and gender. The survey methodology was modified to more of a (hybrid) quasi-experimental design rather than the standard correlational design (typical of surveys) used last year.

This change in the survey design and focus necessitated changes in the approach to data analysis. Firstly, fewer relationships were examined. This was due to the 2006 survey’s more specific focus, as well as the approach to measurement of bilingualism that was taken. The present study utilised three variables essentially measuring the same construct, which were combined in the data analysis to get the best measurement of bilingualism, the dependent variable. This is unlike what occurred in 2005, when several dependent variables were used as the basis for analysis. Secondly, with the design change it was considered prudent to examine potential confounding relationships. For instance there could have been an interaction between the gender of the interviewers and the willingness of respondents to exhibit bilingualism (this is only true if interview teams were randomly assigned to interviews).

The results indicate that 46.4% of respondents were able to switch between both languages (with and without prompting) and therefore demonstrated bilingualism. The majority of the sample however was monolingual, with more than a third of this proportion being Patwa speakers (Jamaican Language users).
When bilingualism was examined using the demographic characteristics of respondents there were only two significant relationships. Demonstrated bilingualism tended to be slightly higher among respondents who were from eastern parishes that were urban areas when compared to their western and rural counterparts. Among monolingual respondents, eastern and urban areas tended to have more monolingual English speakers than western and rural areas. There was also a tendency for higher skilled or professional respondents to demonstrate bilingualism than respondents who indicated that they were unskilled or unemployed. Additionally, English speaking monolinguals tended to be concentrated in the highly skilled and professional groups.

There was some amount of interaction between the gender combination of the pair of interviewers as well as the language in which the interviewers initiated the interview process, and the respondent’s behaviour. Respondents from urban areas who had two female interviewers were more likely to demonstrate bilingualism than those from rural Jamaica, while those from the eastern region were more likely to be monolingual English speakers than those in western parishes. Additionally, the relationship between Occupation and Bilingualism was significant across all levels of the control variables but the relationships were stronger for mixed gender interview teams (teams consisting of male and female interviewers) and interviews initiated in Patwa.
Sample and Analytical Plan

In this section of the report, the demographic structure of the sample will be presented, along with how these characteristics were used to stratify the sample. The breakdown of the characteristics of the interviewers and interviews is also presented. Additionally a brief description of the analytical plan is provided, including the data manipulations, statistics used, level of significance used for testing and a simple diagrammatic presentation of the analytic procedure.

Profile of the Sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>Western</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Eastern</td>
<td>600</td>
</tr>
<tr>
<td>Urban/Rural</td>
<td>Urban</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>500</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>495</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>504</td>
</tr>
<tr>
<td>Age</td>
<td>18 - 30 yrs</td>
<td>349</td>
</tr>
<tr>
<td></td>
<td>31 - 50 yrs</td>
<td>383</td>
</tr>
<tr>
<td></td>
<td>51 - 80+ yrs</td>
<td>268</td>
</tr>
<tr>
<td>Occupational Groups</td>
<td>Unskilled/Housewives</td>
<td>246</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>198</td>
</tr>
<tr>
<td></td>
<td>Farmers/skilled craftsmen</td>
<td>241</td>
</tr>
<tr>
<td></td>
<td>Clerical sales/services</td>
<td>148</td>
</tr>
<tr>
<td></td>
<td>Self employed/service professionals</td>
<td>167</td>
</tr>
</tbody>
</table>

As shown in Table 1, the majority of the respondents were from eastern parishes (60%) and the other 40% were pulled from western parishes. This is unlike the previous year in which the respondents were divided equally between western and central parishes. There were equal proportions of respondents from urban and rural areas compared to 3.8% more respondents from urban areas in 2005.
<table>
<thead>
<tr>
<th>Region</th>
<th>Urban/Rural</th>
<th>Sex</th>
<th>Age groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>18 - 30 yrs</td>
<td>31 - 50 yrs</td>
</tr>
<tr>
<td>Western</td>
<td>Urban</td>
<td>Males</td>
<td>33 (49.3%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Females</td>
<td>34 (50.7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All Sex</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>Males</td>
<td>32 (48.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Females</td>
<td>34 (51.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All Sex</td>
<td>66</td>
</tr>
<tr>
<td>All Areas</td>
<td></td>
<td></td>
<td>133</td>
</tr>
<tr>
<td>Eastern</td>
<td>Urban</td>
<td>Males</td>
<td>65 (56.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Females</td>
<td>50 (43.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All Sex</td>
<td>115</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>Males</td>
<td>50 (50%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Females</td>
<td>50 (50%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All Sex</td>
<td>100</td>
</tr>
<tr>
<td>All Areas</td>
<td></td>
<td></td>
<td>215</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>348</td>
</tr>
</tbody>
</table>
The gender distribution has remained comparable across the two years with roughly equal proportions of male and female respondents. Last year there were slightly more men than women, this year that has been reversed, with one respondent not specifying gender. There was greater heterogeneity in the distribution of the age groups in the present sample. Last year the sample was divided roughly into thirds across the three groups. This year almost thirty five percent were between the ages of 31-50 years (34.9%) and less than a third (29.3%) was in the oldest age category. The largest occupational groups were unskilled/housewives (24.6%) and farmers/skilled craftsmen (24.1%) compared to clerical sales/services (25.4%) and farmers/skilled craftsmen (23.8%) in 2005. The unemployed category (19.8%) this year is slightly larger than the 12.2% of the sample last year. The self employed/service professionals were 16.7% of all respondents, down from 20.4% in 2005.

Region (western and eastern), Urban/Rural (urban and rural), age (18-30 years, 31-50 years and 51-80+ years) and gender were the variables used to design the stratified sample for the LCS. The resulting design had 24 distinct strata, as displayed in Table 2. For the western parishes, there were roughly equal proportions of male and female respondents across all age groups. There was greater variability in the gender and age distributions for rural as opposed to urban areas.

There were greater disparities in the age and gender distribution in urban areas of the eastern parishes, actually exhibiting the greatest heterogeneity for any set of strata. The most salient feature is a 15.1% drop in the total number of respondents in the oldest age groups while the other two age groups had 5.8% and 9.2% increases in the numbers of respondents respectively, compared to the previous year. The rural parishes have a similar pattern to those of the strata for western parishes as well as the previous year and therefore there is relative uniformity in the distribution of age and gender.

Profile of the Interviewers and Interviews
Table 3 highlights that approximately of a third (33.7%) of the interviews were conducted by mixed gender interview couples. This was more a function of the disparities observed in the general university population (University of the West Indies, Mona campus), from which the interviewers were selected, rather than a specific design feature. There seemed to be a preference, irrespective of the gender combinations of the interviewing teams, in the language used to start the interviews, the majority
(53.2%) of which was started in Patwa. This roughly translates into six percent more interviews initiated using Patwa.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex of interviewers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male &amp; Female</td>
<td>337</td>
<td>33.7</td>
</tr>
<tr>
<td>Female &amp; Female</td>
<td>663</td>
<td>66.3</td>
</tr>
<tr>
<td>Language used to initiate interview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>468</td>
<td>46.8</td>
</tr>
<tr>
<td>Patwa</td>
<td>532</td>
<td>53.2</td>
</tr>
</tbody>
</table>

Data Analysis and Manipulation

The data was analyzed using the Statistical Package of the Social Sciences (SPSS). The variables used in the analysis were categorical, therefore the Chi-square statistic was used to examine the bivariate relationships. Additionally, all relationships were tested using a significance level of five percent (5%). The implication of this is that the maximum probability of the risk of making a Type I error was 0.05. Therefore all displayed significance levels that were below 0.05 were deemed to be statistically significant (any significance level that was exactly, as well as when rounded, equal to or greater than 0.05, was considered to be statistically insignificant).

Diagram 1 is the graphical representation of the analytical plan that was used in the study. On the left hand side of the diagram are the independent variables (region, area, age groups, gender and occupational groups. On the right hand side is the dependent variable (bilingualism) and the variables located at the bottom centre (gender of interviewers and language interviews initiated) are the control variables. The control variables are considered to be mediating the relationships between each of the independent
variables and the dependent variable. These relationships were assessed to identify potential confounding relationships. Generally, only the relationships that were statistically significant were reported and discussed.

There are two notable variable modifications that were made for the analysis. The variable used to measure occupation groups was created by recoding the variable OCCUPAT. The original variable had a total of nine categories was simply regrouped into five (which can be seen in Table 1 above). Specifically, the categories labeled self employed/service professionals, farmers/skilled craftsmen and unemployed were created by collapsing as the names suggest self employed professionals with service professional, farmers with skilled crafts men and unemployed consisted of students, retired and unemployed respondents. This was done primarily to achieve parity with what was done in the previous year as well as to subsume categories into larger operational categories for occupational groups.

The variable BILINGUALISM was a ‘proxy variable’ used to measure language competence, was created by the summation of three variables; Q8 (Language at scenario – Jamaican or English), Q9 (Language at prompt – Jamaican or English) and Q10 (Language at debrief – Jamaican or English). These variables were first recoded, weighting the values of each variable to ensure that each characteristic represented by these variables would be clearly distinguishable when summed. After the creation of the proxy variable it was recoded into the three groups displayed in Table 4 below. This seemingly elaborate undertaking was done because each variable (Q8, Q9 and Q10) measured different aspects of the process used to measure bilingualism. Therefore no one variable was suitable as an adequate measure of bilingualism. This then necessitated the combination of all three to develop an accurate (as was possible) measure of bilingualism.
Data Presentation

Bilingualism

From Table 4, it can be seen that 46.4% of the respondents demonstrated bilingualism. Less than 20% of the sample were monolinguals that spoke only English and just over a third (36.5%) of the respondents were Patwa speaking monolinguals (either because they did not speak both languages during the interview or told the interviewers that they were capable of doing so but did not demonstrate competence in both).

Independent Variables: Region, Urban/Rural, Age, Gender, Occupation

Table 5-9 present the results of the chi-square analysis, examining the relationships between bilingualism and region, Urban/Rural, age, gender and occupation. Only three of relationships were found to be statistically significant, namely Region, Urban/Rural and Occupational Groups with Bilingualism.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Bilingualism</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>English</td>
<td>Patwa</td>
</tr>
<tr>
<td>Western</td>
<td>54 (13.5%)</td>
<td>162 (40.5%)</td>
</tr>
<tr>
<td>Eastern</td>
<td>117 (19.5%)</td>
<td>203 (33.8%)</td>
</tr>
</tbody>
</table>
Table 6: Bilingualism by Urban/Rural

<table>
<thead>
<tr>
<th>Variables</th>
<th>Bilingualism</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English</td>
<td>Patwa</td>
</tr>
<tr>
<td></td>
<td>Count (%)</td>
<td>Count (%)</td>
</tr>
<tr>
<td><strong>χ² = 11.365, p = 0.003</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>103 (20.6%)</td>
<td>163 (32.6%)</td>
</tr>
<tr>
<td>Rural</td>
<td>68 (13.6%)</td>
<td>202 (40.4%)</td>
</tr>
</tbody>
</table>

n = 500

Table 7: Bilingualism by Age

<table>
<thead>
<tr>
<th>Variables</th>
<th>Bilingualism</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English</td>
<td>Patwa</td>
</tr>
<tr>
<td></td>
<td>Count (%)</td>
<td>Count (%)</td>
</tr>
<tr>
<td><strong>χ² = 4.978, p = 0.290</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 – 30 yrs</td>
<td>69 (19.8%)</td>
<td>115 (33%)</td>
</tr>
<tr>
<td>31 – 50 yrs</td>
<td>60 (15.7%)</td>
<td>142 (37.1%)</td>
</tr>
<tr>
<td>51 – 80+ yrs</td>
<td>42 (15.7%)</td>
<td>108 (40.3%)</td>
</tr>
</tbody>
</table>

n = 349(n = 383(n = 268

Table 8: Bilingualism by Gender

<table>
<thead>
<tr>
<th>Variables</th>
<th>Bilingualism</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English</td>
<td>Patwa</td>
</tr>
<tr>
<td></td>
<td>Count (%)</td>
<td>Count (%)</td>
</tr>
<tr>
<td><strong>χ² = 0.074, p = 0.964</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>86 (17.4%)</td>
<td>181 (36.6%)</td>
</tr>
<tr>
<td>Female</td>
<td>85 (16.9%)</td>
<td>183 (36.3%)</td>
</tr>
</tbody>
</table>

n = 495(n = 504

Table 9: Bilingualism by Occupation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Bilingualism</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English</td>
<td>Patwa</td>
</tr>
<tr>
<td></td>
<td>Count (%)</td>
<td>Count (%)</td>
</tr>
<tr>
<td><strong>χ² = 79.013, p = 0.000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unskilled/housewife</td>
<td>21 (8.5%)</td>
<td>127 (51.6%)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>45 (22.7%)</td>
<td>66 (33.3%)</td>
</tr>
<tr>
<td>Farmer/skilled craftsman</td>
<td>28 (11.6%)</td>
<td>100 (41.5%)</td>
</tr>
<tr>
<td>Clerical sales/services</td>
<td>25 (16.9%)</td>
<td>36 (24.3%)</td>
</tr>
<tr>
<td>self-employed/service professional</td>
<td>52 (31.1%)</td>
<td>36 (21.6%)</td>
</tr>
</tbody>
</table>

n = 246(n = 198(n = 241

n = 148(n = 167
Region
There was a statistically significant relationship between Region and Bilingualism ($\chi^2 (4) = 7.998$, $p<0.05$). As shown in Table 5, there was a marginal difference in the number of bilinguals across the regions: eastern parishes had 46.7% compared to 46% in the western parishes. Among monolinguals, it would appear that respondents who were from eastern parishes (19.5%) were more likely to exhibit English monolingualism than those from western parishes (13.5%). The reverse is true for monolingual Patwa speakers, where 40.5% were to be found in western parishes compared to a third in eastern parishes. There was a very weak association between the two variables (cc = 0.089), with less than one percent of the variation in bilingualism being explained by its relationship with region.

Urban/Rural
The results indicate that a statistically significant relationship exists between Urban/Rural and Bilingualism ($\chi^2(2) = 11.365$, $p<0.05$). Respondents from urban areas were less likely to be Patwa-speaking monolinguals (20.6%) and fractionally more likely to demonstrate bilingualism (46.8%) when compared with persons from rural areas (13.6% and 46%) respectively. There was a weak relationship between area of residence and bilingualism (cc = 0.106). Additionally, approximately one percent of the variation in the distribution of Bilingualism was explained by its relationship with area.

Occupational Groups
In terms of the relationship between Occupation and Bilingualism, there was direct variation between occupational classification groups and being an English speaking monolingual or exhibiting bilingualism. That is, as the level of skill (or education required) for the job increased or the occupational categories become more service oriented, respondents were more likely to either be English-speaking monolingual or be bilingual rather than a Patwa-speaking monolingual. From Table 9, it can be seen that unskilled workers or housewives (51.6%) were most likely to demonstrate Patwa monolingualism. Clerical sale/services and self employed/service professionals were most likely to demonstrate bilingualism (58.8% and 47.3% respectively). There was a weak relationship between the two variables (cc = 0.271), with 7.3% of the variation in bilingualism being explained by its relationship with occupational groups.
Controlling Variable: Gender of Interviewers

Tables 10 to 14 present the results of the chi-square analysis examining the relationships between bilingualism and the independent variables (Region, Urban/Rural, Age, Gender and Occupation), controlling for the effects of the gender of the interviewers. As before, the only significant relationships were found between Region, Urban/Rural and Occupational Groups.

<table>
<thead>
<tr>
<th>Table 10: Re-examining Bilingualism by Region, Controlling for the Effects of the Gender of Interviewers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender of Interviewers</strong></td>
</tr>
<tr>
<td>Male &amp; Female</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Female &amp; Female</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 11: Re-examining Bilingualism by Urban/Rural, Controlling for the Effects of the Gender of Interviewers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender of Interviewers</strong></td>
</tr>
<tr>
<td>Male &amp; Female</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Female &amp; Female</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 12: Re-examining Bilingualism by Gender, Controlling for the Effects of the Gender of Interviewers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender of Interviewers</strong></td>
</tr>
<tr>
<td>Male &amp; Female</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Female &amp; Female</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Table 13: Re-examining Bilingualism by Age, Controlling for the Effects of the Gender of Interviewers

<table>
<thead>
<tr>
<th>Gender of Interviewers</th>
<th>Age Groups</th>
<th>English</th>
<th>Patwa</th>
<th>Demonstrated Bilingualism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male &amp; Female</td>
<td>18 - 30yrs</td>
<td>22 (18.6%)</td>
<td>38 (32.2%)</td>
<td>58 (49.2%)</td>
</tr>
<tr>
<td></td>
<td>χ² = 3.182, p = 0.528</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>31 - 50yrs</td>
<td>22 (16.8%)</td>
<td>51 (38.9%)</td>
<td>58 (44.3%)</td>
</tr>
<tr>
<td></td>
<td>51 - 80+ yrs</td>
<td>10 (11.4%)</td>
<td>35 (39.8%)</td>
<td>43 (48.9%)</td>
</tr>
<tr>
<td>Female &amp; Female</td>
<td>18 - 30yrs</td>
<td>47 (20.3%)</td>
<td>77 (33.3%)</td>
<td>107 (46.3%)</td>
</tr>
<tr>
<td></td>
<td>χ² = 4.527, p = 0.339</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>31 - 50yrs</td>
<td>38 (15.1%)</td>
<td>91 (36.1%)</td>
<td>123 (48.8%)</td>
</tr>
<tr>
<td></td>
<td>51 - 80+ yrs</td>
<td>32 (17.8%)</td>
<td>73 (40.6%)</td>
<td>75 (41.7%)</td>
</tr>
</tbody>
</table>

Table 14: Re-examining Bilingualism by Occupation, Controlling for the Effects of the Gender of Interviewers

<table>
<thead>
<tr>
<th>Gender of Interviewers</th>
<th>Occupational Groups</th>
<th>English</th>
<th>Patwa</th>
<th>Demonstrated Bilingualism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male &amp; Female</td>
<td>Unskilled/housewife</td>
<td>6 (7.1%)</td>
<td>50 (59.5%)</td>
<td>28 (33.3%)</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>18 (27.3%)</td>
<td>17 (25.8%)</td>
<td>31 (47%)</td>
</tr>
<tr>
<td></td>
<td>Farmer/skilled craftsman</td>
<td>9 (11.7%)</td>
<td>31 (40.3%)</td>
<td>37 (48.1%)</td>
</tr>
<tr>
<td></td>
<td>Clerical sales/services</td>
<td>7 (14.6%)</td>
<td>13 (27.1%)</td>
<td>28 (58.3%)</td>
</tr>
<tr>
<td></td>
<td>self-employed/service professional</td>
<td>14 (22.6%)</td>
<td>13 (21.0%)</td>
<td>35 (56.5%)</td>
</tr>
<tr>
<td>Female &amp; Female</td>
<td>Unskilled/housewife</td>
<td>15 (9.3%)</td>
<td>77 (47.5%)</td>
<td>70 (43.2%)</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>27 (20.5%)</td>
<td>49 (37.1%)</td>
<td>56 (42.4%)</td>
</tr>
<tr>
<td></td>
<td>Farmer/skilled craftsman</td>
<td>19 (11.6%)</td>
<td>69 (42.1%)</td>
<td>76 (46.3%)</td>
</tr>
<tr>
<td></td>
<td>Clerical sales/services</td>
<td>18 (18%)</td>
<td>23 (23%)</td>
<td>59 (59%)</td>
</tr>
<tr>
<td></td>
<td>self-employed/service professional</td>
<td>38 (36.2%)</td>
<td>23 (21.9%)</td>
<td>44 (41.9%)</td>
</tr>
</tbody>
</table>

Region

From Table 10, the relationship between Region and Bilingualism is significant for respondents who where interviewed by mixed gender interview teams (χ² (2) = 8.905, p<0.05). The nature of this relationship is similar to what was previously described for the test between both variables without the
control variable. Specifically, respondents from eastern parishes are more like to be monolingual-English speakers (20.7%) than those from western parishes (8.5%). However there was one notable exception, there were more bilinguals in the western region than in the east (52.7% compared to 43.8%). There was a marked increase in the strength of the relation (from $cc = 0.086$ to $cc = 0.160$) which in turn increased the explained variation from approximately 0.7% to approximately 2.5% of the variation in bilingualism. This would suggest that the relationship is true of those respondents interviewed by mixed gender interviewers rather than those that had only female interviewers.

**Urban/Rural**

As before when looking solely on area, the results indicate that there is a statistically significant relationship between Urban/Rural and Bilingualism ($\chi^2 (2) = 11.365, p<0.05$). However, this time it is only true for the interviews conducted by interview teams that had only female interviewers. The general nature of the relationship is also the same but the pattern is more distinctive. As seen in Table 11, respondents from urban areas were more likely to be bilinguals (48.4%) when compared with respondents from rural areas (43.3%). If they are monolinguals, they are more likely to speak English (20.6%) compared to their rural counterparts (14.3%). The strength of the relationship increased, but still remained weak ($cc = 0.114$). While this does point to an interaction of some sort between the gender of the interviewers and the behaviour of respondents, it is important to note that only a third of these interviews were conducted by mixed gender interview teams. Therefore it cannot conclusively be determined that such an interaction is indeed a true reflection of the effect of interviewer gender, particularly since there were no single sex male interview teams.

**Occupational Groups**

As seen in Table 14, the results obtained for the relationship between Occupational Groups and Bilingualism is similar to what was obtained before and is significant for both types of interview couples. This would indicate that the relationship is true generally for the sample and the gender of the interviewers had little effect on this relationship (although the relationship is stronger for mixed gender interview teams). As with Urban/Rural, the pattern of interaction between the independent and dependent variable is much more delineated. The pattern indicates that unskilled/ housewives, if monolingual, are more likely to be Patwa speakers than were respondents in the clerical or professional categories. Overall, unskilled and housewives are also less likely to be bilingual than their counterparts in the clerical or professional categories.
Even though the relation was significant for both types of interview teams, the fact that the relationship was stronger for mixed gender interview teams does indicate some level of interaction. Approximately 10% of the variation in bilingualism is explained by its relationship with occupation for mixed gender interview teams, which is two percent (2%) more than what is explained by the same relationship for all female teams. It is important however to note that while this reinforces the idea of the confounding effect that the gender of the interview teams had on the relationship, without that third group (single sex male interview teams) it is not possible to fully understand the nature of this interaction.

**Controlling Variable: Language Used to Initiate Interview**

Tables 15 to 19 present the results of the chi-square analysis examining the relationships between bilingualism and the independent variables (region, Urban/Rural, Age, Gender and Occupation) controlling for the effects of the language used to initiate the interviews. The variables Region, Urban/Rural, Age and Occupational groups were found to be significantly related to Bilingualism.

<table>
<thead>
<tr>
<th>Starting Language</th>
<th>Bilingualism</th>
<th>Western</th>
<th>Eastern</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>English</td>
<td>37 (18.6%)</td>
<td>46 (17.1%)</td>
</tr>
<tr>
<td></td>
<td>Patwa</td>
<td>81 (40.7%)</td>
<td>89 (33.1%)</td>
</tr>
<tr>
<td></td>
<td>Demonstrated Bilingualism</td>
<td>81 (40.7%)</td>
<td>134 (49.8%)</td>
</tr>
<tr>
<td>Patwa</td>
<td>English</td>
<td>17 (8.5%)</td>
<td>71 (21.5%)</td>
</tr>
<tr>
<td></td>
<td>Patwa</td>
<td>81 (40.3%)</td>
<td>114 (34.4%)</td>
</tr>
<tr>
<td></td>
<td>Demonstrated Bilingualism</td>
<td>103 (51.2%)</td>
<td>146 (44.1%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Starting Language</th>
<th>Bilingualism</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>English</td>
<td>54 (21.6%)</td>
<td>29 (13.3%)</td>
</tr>
<tr>
<td></td>
<td>Patwa</td>
<td>74 (29.6%)</td>
<td>96 (44%)</td>
</tr>
<tr>
<td></td>
<td>Demonstrated Bilingualism</td>
<td>122 (48.8%)</td>
<td>93 (42.7%)</td>
</tr>
<tr>
<td>Patwa</td>
<td>English</td>
<td>49 (19.6%)</td>
<td>39 (13.8%)</td>
</tr>
<tr>
<td></td>
<td>Patwa</td>
<td>89 (35.6%)</td>
<td>106 (37.6%)</td>
</tr>
<tr>
<td></td>
<td>Demonstrated Bilingualism</td>
<td>112 (44.8%)</td>
<td>137 (48.6%)</td>
</tr>
</tbody>
</table>
### Table 17: Re-examining Bilingualism by Gender, Controlling for the Effects of the Language Used to Initiate the Interviews

<table>
<thead>
<tr>
<th>Starting Language</th>
<th>Bilingualism</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>English</td>
<td>39 (17.6%)</td>
<td>44 (17.8%)</td>
</tr>
<tr>
<td>$\chi^2 = 0.238, p = 0.888$</td>
<td>Patwa</td>
<td>78 (35.3%)</td>
<td>92 (37.2%)</td>
</tr>
<tr>
<td></td>
<td>Demonstrated Bilingualism</td>
<td>104 (47.1%)</td>
<td>111 (44.9%)</td>
</tr>
<tr>
<td>Patwa</td>
<td>English</td>
<td>47 (17.2%)</td>
<td>41 (16%)</td>
</tr>
<tr>
<td>$\chi^2 = 0.612, p = 0.736$</td>
<td>Patwa</td>
<td>103 (37.6%)</td>
<td>91 (35.4%)</td>
</tr>
<tr>
<td></td>
<td>Demonstrated Bilingualism</td>
<td>124 (45.3%)</td>
<td>125 (48.6%)</td>
</tr>
</tbody>
</table>

### Table 18: Re-examining Bilingualism by Age, Controlling for the Effects of the Language Used to Initiate the Interviews

<table>
<thead>
<tr>
<th>Starting Language</th>
<th>Age Groups</th>
<th>English</th>
<th>Patwa</th>
<th>Demonstrated Bilingualism</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>18 - 30yrs</td>
<td>27 (15.5%)</td>
<td>60 (34.5%)</td>
<td>87 (50%)</td>
</tr>
<tr>
<td>$\chi^2 = 4.102, p = 0.392$</td>
<td>31 - 50yrs</td>
<td>34 (17.8%)</td>
<td>68 (35.6%)</td>
<td>89 (46.6%)</td>
</tr>
<tr>
<td></td>
<td>51 - 80+ yrs</td>
<td>22 (21.4%)</td>
<td>42 (40.8%)</td>
<td>39 (37.9%)</td>
</tr>
<tr>
<td>Patwa</td>
<td>18 - 30yrs</td>
<td>42 (24%)</td>
<td>55 (31.4%)</td>
<td>78 (44.6%)</td>
</tr>
<tr>
<td>$\chi^2 = 11.151, p = 0.025$</td>
<td>31 - 50yrs</td>
<td>26 (13.5%)</td>
<td>74 (38.5%)</td>
<td>92 (47.9%)</td>
</tr>
<tr>
<td></td>
<td>51 - 80+ yrs</td>
<td>20 (12.1%)</td>
<td>66 (40.1%)</td>
<td>79 (47.9%)</td>
</tr>
</tbody>
</table>

### Table 19: Re-examining Bilingualism by Occupation, Controlling for the Effects of the Language Used to Initiate the Interviews

<table>
<thead>
<tr>
<th>Starting Language</th>
<th>Occupational Groups</th>
<th>English</th>
<th>Patwa</th>
<th>Demonstrated Bilingualism</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>Unskilled/housewife</td>
<td>10 (9.8%)</td>
<td>52 (51%)</td>
<td>40 (39.2%)</td>
</tr>
<tr>
<td>$\chi^2 = 23.722, p = 0.003$</td>
<td>Unemployed</td>
<td>20 (21.1%)</td>
<td>32 (33.7%)</td>
<td>43 (45.3%)</td>
</tr>
<tr>
<td></td>
<td>Farmer/skilled craftsman</td>
<td>16 (14.3%)</td>
<td>45 (40.2%)</td>
<td>51 (45.5%)</td>
</tr>
<tr>
<td></td>
<td>Clerical sales/services</td>
<td>13 (18.3%)</td>
<td>18 (25.4%)</td>
<td>40 (56.3%)</td>
</tr>
<tr>
<td></td>
<td>self-employed/service professional</td>
<td>24 (27.3%)</td>
<td>23 (26.1%)</td>
<td>41 (46.6%)</td>
</tr>
<tr>
<td>Patwa</td>
<td>Unskilled/housewife</td>
<td>11 (7.6%)</td>
<td>75 (52.1%)</td>
<td>58 (40.3%)</td>
</tr>
<tr>
<td>$\chi^2 = 60.378, p = 0.000$</td>
<td>Unemployed</td>
<td>25 (24.3%)</td>
<td>34 (33%)</td>
<td>44 (42.7%)</td>
</tr>
<tr>
<td></td>
<td>Farmer/skilled craftsman</td>
<td>12 (9.3%)</td>
<td>55 (42.6%)</td>
<td>62 (48.1%)</td>
</tr>
<tr>
<td></td>
<td>Clerical sales/services</td>
<td>12 (15.6%)</td>
<td>18 (23.4%)</td>
<td>47 (61%)</td>
</tr>
<tr>
<td></td>
<td>self-employed/service professional</td>
<td>28 (35.4%)</td>
<td>13 (16.5%)</td>
<td>38 (48.1%)</td>
</tr>
</tbody>
</table>
**Region**

There was a significant relationship ($\chi^2 (2) = 15.293, p<0.05$) between Region and Bilingualism but only for those interviews that were initiated in Patwa (Table 15). As previously highlighted, respondents from western parishes were more likely to be bilingual (51.2%) and if they were bilingual they were less likely to be English speakers (8.5% compared to 21.5%). This relationship was weak accounting for less than three percent of the variation in bilingualism.

**Urban/Rural**

According to the results from Table 16, there is a significant relationship between Urban/Rural and Bilingualism but it is only significant for interviews that were initiated in English. In keeping with the general trend for this relationship (see Table 10), urban respondents are more likely to be bilinguals (48.8%) than those from rural areas (42.7%). Similar to what was found when the gender of the interview teams was used as a control for the amount of variation in the relationship increased to approximately 2.5%. This suggests that this relationship is mediated both by the gender or the interview teams and the language that was used to initiate the interviews. It is possible that male-female interview teams tended to start interviews in English more so than Patwa.

**Age**

There was a significant relationship between Age and Bilingualism when the language used to initiate the interview was held constant (Table 18). The relationship was true for respondents that started the interview process with a scenario presented in Patwa. Older respondents (47.9%) were more likely to report bilingualism than younger respondents (44.36%). However among those respondents that were monolinguals, younger respondents were more likely to be English speakers (24%) compared to their older counterparts who were Patwa speakers (66%). This relationship was weak explaining two percent of the variation in bilingualism.

**Occupational Groups**

From Table 19, irrespective of the language that the interview was started there was a relationship between Occupational Groups and Bilingualism. While the same general trend could be observed in the relationship (monolingual respondents tended to be less skilled than bilinguals and among monolinguals monolingual English speakers tended to be from the higher skilled groups), there was a stronger association between the variables for those interviews that were initiated using Patwa. On the one hand,
under this controlled condition (interviews started with Patwa), occupational group accounted for 10.2% of the variation in Bilingualism. On the other hand, for those interviews initiated in English occupational groups accounted for only 4.8%. Altogether this would indicate that the relationship between occupational groups and Bilingualism is mediated by the language the interviewers used to start the interview process.

**Conclusion**

There were significant relationships for three of the five variables: Region, Urban/Rural and Occupational group. Individuals that resided in eastern parishes tended to be bilingual or, if monolingual, were more likely to be English speakers. Urban area respondents/residents were more likely to be bilingual than those who were from rural areas. However, most English speaking monolinguals were to be found in urban areas. Respondents who classified themselves as clerical sales/services or the self employed/service professionals were more likely to be bilingual than those who were unskilled/housewives or unemployed. Within the occupational groups those who were monolingual Patwa speakers were concentrated in the lower skilled groups.

When the analytical model was re-examined holding the gender of the interviewers constant as well as the language that was used to initiate the interviews, the same variables (Region, Urban/Rural and Occupational groups) were found to be significant. (Age was significant but only when the second control variable, language used to initiate interview, was used) All three relationships were affected by both control variables, which indicated potential methodological confounds. Specifically, the relationship between Age and bilingualism was only significant for those interviews that were initiated using Patwa. The relationship between bilingualism and Region was significant for male-female interview teams but not for all female teams and those interviews that were initiated using Patwa. The relationship between Urban/Rural and bilingualism was only significant for female interview couples and interviews imitated in English. A possible explanation for this is that male-female interview teams were more likely to start interviews using Patwa while all female teams were more likely to start using English (although they could be unrelated incidents). The relationship between Occupational Groups and Bilingualism was significant for the sample irrespective of whether respondents were interviewed by a mixed gender or all female teams or the interview was started with Patwa or English. It must be noted
however that the relationship was stronger for mixed gender interview teams and interviews that were initiated using Patwa.
## APPENDIX - Questionnaire

### LANGUAGE COMPETENCE SURVEY

#### Procedures for Language Competence Survey

1. A team of two persons will approach an informant.
2. The member of the team who leads off the interaction is responsible for filling out the form.
3. Lead interviewer ensures that all information required on the form has been filled out.

### INTRODUCTION

*THE LEAD MEMBER GETS VERBAL CONSENT FROM INFORMANT, USING THE LANGUAGE VARIETY TO BE EMPLOYED IN THE FIRST PART OF THE INTERACTION.*

<table>
<thead>
<tr>
<th>ENGLISH SCENARIO</th>
<th>PATWA SCENARIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good Morning/Afternoon we are University of the West Indies students conducting a survey. Would you be willing to answer some questions for us on cell phones? [GET VERBAL CONSENT]</td>
<td>Maanin Mam/Sar wi kom fram di University of di West Indies, an wi a du wan sorvie. Yu kyahn ansa som kwestiyan bout sel fuon fi wi? [GET VERBAL CONSENT]</td>
</tr>
</tbody>
</table>

### Question 1

*LEAD MEMBER INTRODUCES THE CELL PHONE PHOTOGRAPHS AND QUESTIONS INFORMANT*

<table>
<thead>
<tr>
<th>ENGLISH SCENARIO</th>
<th>PATWA SCENARIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) We want you to look at these two cell phones and tell us which one you prefer. b) Why do you prefer that one?</td>
<td>a) Wi waahn yu luk pon dem sel fuon ya an tel wi wich wan yu rada 2) Wa mek?</td>
</tr>
</tbody>
</table>

#### SECOND MEMBER CUTS ACROSS IN THE SECOND LANGUAGE VARIETY

**CUT ACROSS IN PATWA**

[Introduce 3rd phone] Excuse

a) wa bout da fuon ya/ Yu wuda buy da wan ya? b) Wa mek?

**CUT ACROSS IN ENGLISH**

[Introduce 3rd phone] Excuse me...

a) Would you buy this phone? b) Why/Why not?

1a. The respondent spoke in ENGLISH [ ] 1b. The respondent spoke in PATWA [ ]

IF INFORMANT USES BOTH LANGUAGE VARIETIES GO TO DEMOGRAPHICS.

IF INFORMANT USES ONLY ONE LANGUAGE VARIETY CONTINUE TO QUESTION 2

### Question 2

*EITHER MEMBER CONTINUES WITH PROMPT IF THE LANGUAGE VARIETY FOR WHICH THEY ARE RESPONSIBLE HAS NOT BEEN USED.*

**PROMPT FOR PATWA SPEAKERS**

If I wanted to advertise this phone in English how would you describe this phone for me in English?

2a) The respondent spoke in PATWA [ ]

**PROMPT FOR ENGLISH SPEAKERS**

Supuoz mi waahn advataiz da fuon ya ina Patwa ou yu wuda taak bout da fuon ya ina Patwa?

2b) The respondent spoke in ENGLISH [ ]

IF RESPONDENT DOES NOT SWITCH TO PATWA/ENGLISH CONTINUE TO DEBRIEF

### Question 3 - DEBRIEF

**DEBRIEF FOR ENGLISH SPEAKERS**

**DEBRIEF FOR PATWA SPEAKERS**
Part of our research today involves finding out what languages people speak. I noticed you answered all the questions in English even when my colleague spoke to you in Patwa. Do you speak Patwa?

<table>
<thead>
<tr>
<th>3a) Respondent says they speak PATWA [ ]</th>
<th>3b) Respondent says they speak ENGLISH [ ]</th>
</tr>
</thead>
</table>

**Q u e s t i o n 4 - D E M O G R A P H I C S**
SECOND MEMBER COLLECTS DEMOGRAPHIC INFORMATION IN ANY LANGUAGE VARIETY THAT SEEMS APPROPRIATE

|-------------------------|---------------|---------------------|

<table>
<thead>
<tr>
<th>5. Age Range:</th>
<th>a) 18 – 30 years [ ]</th>
<th>b) 31 – 50 years [ ]</th>
<th>c) 51 – 80+ years [ ]</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>6. Sex:</th>
<th>Male [ ]</th>
<th>Female [ ]</th>
</tr>
</thead>
</table>

7. Occupation: [ ]

INTERVIEWERS THANK INFORMANT FOR PARTICIPATION AND WITHDRAW

Comments:

SUPERVISOR:

Team Members 1. 2.

FOR OFFICE USE ONLY: Western [ ] Easter [ ] Urban [ ] Rural [ ]
### APPENDIX: SPSS Output

#### Frequency Tables of Demographic variables in the Language Competence Survey of Jamaica

**REGION region**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 western</td>
<td>400</td>
<td>40.0</td>
<td>40.0</td>
<td>40.0</td>
</tr>
<tr>
<td>2 eastern</td>
<td>600</td>
<td>60.0</td>
<td>60.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**URBRUR urban/rural**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 urban</td>
<td>500</td>
<td>50.0</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td>2 rural</td>
<td>500</td>
<td>50.0</td>
<td>50.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**AGE age range**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 18-30</td>
<td>349</td>
<td>34.9</td>
<td>34.9</td>
<td>34.9</td>
</tr>
<tr>
<td>2 31-50</td>
<td>383</td>
<td>38.3</td>
<td>38.3</td>
<td>73.2</td>
</tr>
<tr>
<td>3 51-80+</td>
<td>268</td>
<td>26.8</td>
<td>26.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
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<td>100.0</td>
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</tbody>
</table>

**SEX gender**

<table>
<thead>
<tr>
<th></th>
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<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 male</td>
<td>495</td>
<td>49.5</td>
<td>49.5</td>
<td>49.5</td>
</tr>
<tr>
<td>2 female</td>
<td>504</td>
<td>50.4</td>
<td>50.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>999</td>
<td>99.9</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
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<td>.1</td>
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<tr>
<td>Total</td>
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</tr>
</tbody>
</table>
### OCCUPG occupational groups

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>246</td>
<td>24.6</td>
<td>24.6</td>
<td>24.6</td>
</tr>
<tr>
<td>2</td>
<td>198</td>
<td>19.8</td>
<td>19.8</td>
<td>44.4</td>
</tr>
<tr>
<td>3</td>
<td>241</td>
<td>24.1</td>
<td>24.1</td>
<td>68.5</td>
</tr>
<tr>
<td>4</td>
<td>148</td>
<td>14.8</td>
<td>14.8</td>
<td>83.3</td>
</tr>
<tr>
<td>5</td>
<td>167</td>
<td>16.7</td>
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<td>100.0</td>
</tr>
<tr>
<td>Total</td>
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<td>100.0</td>
<td>100.0</td>
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</tbody>
</table>

### LANGUAGE language

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
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</thead>
<tbody>
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<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>171</td>
<td>17.1</td>
<td>17.1</td>
<td>17.1</td>
</tr>
<tr>
<td>2</td>
<td>365</td>
<td>36.5</td>
<td>36.5</td>
<td>53.6</td>
</tr>
<tr>
<td>3</td>
<td>464</td>
<td>46.4</td>
<td>46.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

### Demographic variables by Language

**LANGUAGE * REGION**

Crosstab

<table>
<thead>
<tr>
<th>LANGUAGE language</th>
<th></th>
<th>REGION region</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>1 western</td>
<td>2 eastern</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>1 monolingua - English</td>
<td></td>
<td>54</td>
<td>117</td>
<td>171</td>
<td></td>
</tr>
<tr>
<td>% within REGION region</td>
<td>13.5%</td>
<td>19.5%</td>
<td></td>
<td>17.1%</td>
<td></td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>162</td>
<td>203</td>
<td>365</td>
<td></td>
</tr>
<tr>
<td>% within REGION region</td>
<td>40.5%</td>
<td>33.8%</td>
<td></td>
<td>36.5%</td>
<td></td>
</tr>
<tr>
<td>3 Bilingual</td>
<td>Count</td>
<td>184</td>
<td>280</td>
<td>464</td>
<td></td>
</tr>
<tr>
<td>% within REGION region</td>
<td>46.0%</td>
<td>46.7%</td>
<td></td>
<td>46.4%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>400</td>
<td>600</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>% within REGION region</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>
### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>7.998a</td>
<td>2</td>
<td>.018</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>8.117</td>
<td>2</td>
<td>.017</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.242</td>
<td>1</td>
<td>.265</td>
</tr>
</tbody>
</table>

N of Valid Cases 1000

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 68.40.

### Symmetric Measures

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal by Nominal</td>
<td>.089</td>
<td>.018</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>1000</td>
<td></td>
</tr>
</tbody>
</table>

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

### LANGUAGE * URBRUR urban/rural

<table>
<thead>
<tr>
<th>LANGUAGE language</th>
<th>URBRUR urban/rural</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 urban</td>
<td>2 rural</td>
</tr>
<tr>
<td>1 monolingua - English</td>
<td>103</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>20.6%</td>
<td>13.6%</td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td>163</td>
<td>202</td>
</tr>
<tr>
<td></td>
<td>32.6%</td>
<td>40.4%</td>
</tr>
<tr>
<td>3 Bilingual</td>
<td>234</td>
<td>230</td>
</tr>
<tr>
<td></td>
<td>46.8%</td>
<td>46.0%</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Count % within URBRUR urban/rural
### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>11.365</td>
<td>2</td>
<td>.003</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>11.424</td>
<td>2</td>
<td>.003</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>1.748</td>
<td>1</td>
<td>.186</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>1000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 85.50.

### Symmetric Measures

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal by Nominal</td>
<td>.106</td>
<td>.003</td>
</tr>
<tr>
<td>Contingency Coefficient</td>
<td>1000</td>
<td></td>
</tr>
</tbody>
</table>

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

### LANGUAGE * AGE range

#### Crosstab

<table>
<thead>
<tr>
<th>LANGUAGE language</th>
<th>AGE age range</th>
<th>Count</th>
<th>% within AGE age range</th>
<th>1 18-30</th>
<th>2 31-50</th>
<th>3 51-80+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 monolingua - English</td>
<td></td>
<td>69</td>
<td>19.8%</td>
<td>60</td>
<td>42</td>
<td>171</td>
<td></td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td></td>
<td>115</td>
<td>33.0%</td>
<td>142</td>
<td>108</td>
<td>365</td>
<td></td>
</tr>
<tr>
<td>3 Bilingual</td>
<td></td>
<td>165</td>
<td>47.3%</td>
<td>181</td>
<td>118</td>
<td>464</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>349</td>
<td>100.0%</td>
<td>383</td>
<td>268</td>
<td>1000</td>
<td></td>
</tr>
</tbody>
</table>

#### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.978</td>
<td>4</td>
<td>.290</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>4.941</td>
<td>4</td>
<td>.293</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>0.042</td>
<td>1</td>
<td>.839</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>1000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 45.83.
Symmetric Measures

<table>
<thead>
<tr>
<th>Nominal by Nominal Contingency Coefficient</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N of Valid Cases</td>
<td>1000</td>
<td>.290</td>
</tr>
</tbody>
</table>

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

LANGUAGE * SEX gender

Crosstab

<table>
<thead>
<tr>
<th>LANGUAGE * SEX gender</th>
<th>SEX gender</th>
<th>Count</th>
<th>% within SEX gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 monolingua - English</td>
<td>male</td>
<td>86</td>
<td>17.4%</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>85</td>
<td>16.9%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>171</td>
<td>17.1%</td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td>male</td>
<td>181</td>
<td>36.6%</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>183</td>
<td>36.3%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>364</td>
<td>36.4%</td>
</tr>
<tr>
<td>3 Bilingual</td>
<td>male</td>
<td>228</td>
<td>46.1%</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>236</td>
<td>46.8%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>464</td>
<td>46.4%</td>
</tr>
<tr>
<td>Total</td>
<td>male</td>
<td>495</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>504</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>999</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.074a</td>
<td>2</td>
<td>.964</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>.074</td>
<td>2</td>
<td>.964</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.074</td>
<td>1</td>
<td>.786</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>999</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 84.73.

Symmetric Measures

<table>
<thead>
<tr>
<th>Nominal by Nominal Contingency Coefficient</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N of Valid Cases</td>
<td>999</td>
<td>.964</td>
</tr>
</tbody>
</table>

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.
## LANGUAGE * OCCUGP occupational groups

### Crosstab

<table>
<thead>
<tr>
<th>LANGUAGE</th>
<th>OCCUGP occupational groups</th>
<th>Count</th>
<th>% within OCCUGP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 unskilled/housewife</td>
<td>21</td>
<td>8.5%</td>
</tr>
<tr>
<td>2</td>
<td>2 unemployed</td>
<td>45</td>
<td>22.7%</td>
</tr>
<tr>
<td>3</td>
<td>3 farmer/skilled craftsman</td>
<td>28</td>
<td>11.6%</td>
</tr>
<tr>
<td></td>
<td>4 clerical sales/services</td>
<td>25</td>
<td>16.9%</td>
</tr>
<tr>
<td></td>
<td>5 self employed/service professionals</td>
<td>52</td>
<td>31.1%</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
<td>171</td>
<td>17.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LANGUAGE</th>
<th>OCCUGP occupational groups</th>
<th>Count</th>
<th>% within OCCUGP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 unskilled/housewife</td>
<td>21</td>
<td>8.5%</td>
</tr>
<tr>
<td>2</td>
<td>2 unemployed</td>
<td>45</td>
<td>22.7%</td>
</tr>
<tr>
<td>3</td>
<td>3 farmer/skilled craftsman</td>
<td>28</td>
<td>11.6%</td>
</tr>
<tr>
<td></td>
<td>4 clerical sales/services</td>
<td>25</td>
<td>16.9%</td>
</tr>
<tr>
<td></td>
<td>5 self employed/service professionals</td>
<td>52</td>
<td>31.1%</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
<td>171</td>
<td>17.1%</td>
</tr>
</tbody>
</table>

### Chi-Square Tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>79.013a</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>78.307</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.338</td>
<td>1</td>
<td>.561</td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.31.

### Symmetric Measures

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal by Nominal</td>
<td>.271</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>1000</td>
<td></td>
</tr>
</tbody>
</table>

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
### Controlling for Sex of Interviewers

**LANGUAGE * REGION * Q11 Sex of Interviewers**

#### Crosstab

<table>
<thead>
<tr>
<th>Q11 Sex of Interviewers</th>
<th>LANGUAGE * REGION * Q11 Sex of Interviewers</th>
<th>REGION region Count</th>
<th>% within REGION region</th>
<th>Total Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male &amp; Female</td>
<td>1 monolingua - English</td>
<td>11</td>
<td>8.5%</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>% within REGION region</td>
<td>20.7%</td>
<td>16.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 monolingual - Patwa</td>
<td>50</td>
<td>38.8%</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>% within REGION region</td>
<td>35.6%</td>
<td>36.8%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 Bilingual</td>
<td>68</td>
<td>52.7%</td>
<td>159</td>
</tr>
<tr>
<td></td>
<td>% within REGION region</td>
<td>43.8%</td>
<td>47.2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>129</td>
<td>100.0%</td>
<td>337</td>
</tr>
<tr>
<td></td>
<td>% within REGION region</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>2 Female &amp; Female</td>
<td>1 monolingua - English</td>
<td>43</td>
<td>15.9%</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>% within REGION region</td>
<td>18.9%</td>
<td>17.6%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 monolingual - Patwa</td>
<td>112</td>
<td>41.3%</td>
<td>241</td>
</tr>
<tr>
<td></td>
<td>% within REGION region</td>
<td>32.9%</td>
<td>36.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 Bilingual</td>
<td>116</td>
<td>42.8%</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td>% within REGION region</td>
<td>48.2%</td>
<td>46.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>271</td>
<td>100.0%</td>
<td>663</td>
</tr>
<tr>
<td></td>
<td>% within REGION region</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

#### Chi-Square Tests

<table>
<thead>
<tr>
<th>Q11 Sex of Interviewers</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male &amp; Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Chi-Square</td>
<td>8.905a</td>
<td>2</td>
<td>.012</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>9.587</td>
<td>2</td>
<td>.008</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>6.612</td>
<td>1</td>
<td>.010</td>
</tr>
<tr>
<td>Association</td>
<td>337</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Female &amp; Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Chi-Square</td>
<td>4.967b</td>
<td>2</td>
<td>.083</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>4.948</td>
<td>2</td>
<td>.084</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>.166</td>
<td>1</td>
<td>.684</td>
</tr>
<tr>
<td>Association</td>
<td>663</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 20.67.

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 47.82.
## Symmetric Measures

<table>
<thead>
<tr>
<th>Q11 Sex of Interviewers</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male &amp; Female</td>
<td>Nominal by Nominal</td>
<td>Contingency Coefficient</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>337</td>
<td></td>
</tr>
<tr>
<td>2 Female &amp; Female</td>
<td>Nominal by Nominal</td>
<td>Contingency Coefficient</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>663</td>
<td></td>
</tr>
</tbody>
</table>

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

## LANGUAGE * URBRUR urban/rural * Q11 Sex of Interviewers

### Crosstab

<table>
<thead>
<tr>
<th>Q11 Sex of Interviewers</th>
<th>LANGUAGE</th>
<th>URBRUR urban/rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male &amp; Female</td>
<td>1 monolingua - English</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>1 monolingua - English</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td>2 Female &amp; Female</td>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td>Total</td>
<td>3 Bilingual</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>3 Bilingual</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td>2 Female &amp; Female</td>
<td>1 monolingua - English</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>1 monolingua - English</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td>2 Female &amp; Female</td>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td>Total</td>
<td>3 Bilingual</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>3 Bilingual</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
</tbody>
</table>
Chi-Square Tests

<table>
<thead>
<tr>
<th>Q11  Sex of Interviewers</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male &amp; Female</td>
<td>Pearson Chi-Square</td>
<td>4.468(^a)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Likelihood Ratio</td>
<td>4.451</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Linear-by-Linear Association</td>
<td>3.807</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>337</td>
<td></td>
</tr>
<tr>
<td>2 Female &amp; Female</td>
<td>Pearson Chi-Square</td>
<td>10.576(^b)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Likelihood Ratio</td>
<td>10.614</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Linear-by-Linear Association</td>
<td>0.042</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>663</td>
<td></td>
</tr>
</tbody>
</table>

\(a\). 0 cells (.0\%) have expected count less than 5. The minimum expected count is 24.20.

\(b\). 0 cells (.0\%) have expected count less than 5. The minimum expected count is 55.41.

Symmetric Measures

<table>
<thead>
<tr>
<th>Q11  Sex of Interviewers</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male &amp; Female</td>
<td>Nominal by Nominal Contingency Coefficient</td>
<td>.114</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>337</td>
</tr>
<tr>
<td>2 Female &amp; Female</td>
<td>Nominal by Nominal Contingency Coefficient</td>
<td>.125</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>663</td>
</tr>
</tbody>
</table>

\(a\). Not assuming the null hypothesis.

\(b\). Using the asymptotic standard error assuming the null hypothesis.

**LANGUAGE * AGE range * Q11 Sex of Interviewers**

Crosstab

<table>
<thead>
<tr>
<th>Q11  Sex of Interviewers</th>
<th>LANGUAGE language</th>
<th>AGE age range</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 monolingua - English</td>
<td>1 18-30</td>
<td>2 31-50</td>
</tr>
<tr>
<td>1 Male &amp; Female</td>
<td>Count</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>% within AGE age range</td>
<td>18.6%</td>
<td>16.8%</td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>38</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>% within AGE age range</td>
<td>32.2%</td>
<td>38.9%</td>
</tr>
<tr>
<td>3 Bilingual</td>
<td>Count</td>
<td>58</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>% within AGE age range</td>
<td>49.2%</td>
<td>44.3%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>118</td>
<td>131</td>
</tr>
<tr>
<td></td>
<td>% within AGE age range</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>2 Female &amp; Female</td>
<td>Count</td>
<td>47</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>% within AGE age range</td>
<td>20.3%</td>
<td>15.1%</td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>77</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>% within AGE age range</td>
<td>33.3%</td>
<td>36.1%</td>
</tr>
<tr>
<td>3 Bilingual</td>
<td>Count</td>
<td>107</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>% within AGE age range</td>
<td>46.3%</td>
<td>48.8%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>231</td>
<td>252</td>
</tr>
<tr>
<td></td>
<td>% within AGE age range</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
### Chi-Square Tests

<table>
<thead>
<tr>
<th>Q11 Sex of Interviewers</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male &amp; Female</td>
<td>Pearson Chi-Square 3.182&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4</td>
<td>.528</td>
</tr>
<tr>
<td></td>
<td>Likelihood Ratio 3.316</td>
<td>4</td>
<td>.506</td>
</tr>
<tr>
<td></td>
<td>Linear-by-Linear Association .369</td>
<td>1</td>
<td>.543</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases 337</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Female &amp; Female</td>
<td>Pearson Chi-Square 4.527&lt;sup&gt;b&lt;/sup&gt;</td>
<td>4</td>
<td>.399</td>
</tr>
<tr>
<td></td>
<td>Likelihood Ratio 4.532</td>
<td>4</td>
<td>.399</td>
</tr>
<tr>
<td></td>
<td>Linear-by-Linear Association .028</td>
<td>1</td>
<td>.866</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases 663</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.10.

<sup>b</sup> 0 cells (.0%) have expected count less than 5. The minimum expected count is 31.76.

### Symmetric Measures

<table>
<thead>
<tr>
<th>Q11 Sex of Interviewers</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male &amp; Female Nominal by Nominal Contingency Coefficient</td>
<td>.097</td>
<td>.528</td>
</tr>
<tr>
<td>2 Female &amp; Female Nominal by Nominal Contingency Coefficient</td>
<td>.082</td>
<td>.339</td>
</tr>
</tbody>
</table>

<sup>a</sup> Not assuming the null hypothesis.

<sup>b</sup> Using the asymptotic standard error assuming the null hypothesis.

### LANGUAGE * SEX gender * Q11 Sex of Interviewers

#### Crosstab

<table>
<thead>
<tr>
<th>Q11 Sex of Interviewers</th>
<th>LANGUAGE language</th>
<th>SEX gender</th>
<th>Count</th>
<th>% within SEX gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male &amp; Female 1 monolingua - English</td>
<td>Count</td>
<td>25</td>
<td>16.8%</td>
<td>15.4%</td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>56</td>
<td>37.6%</td>
<td>36.2%</td>
</tr>
<tr>
<td>3 Bilingual</td>
<td>Count</td>
<td>68</td>
<td>45.6%</td>
<td>48.4%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>149</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>2 Female &amp; Female 1 monolingua - English</td>
<td>Count</td>
<td>61</td>
<td>17.6%</td>
<td>17.7%</td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>125</td>
<td>36.1%</td>
<td>36.4%</td>
</tr>
<tr>
<td>3 Bilingual</td>
<td>Count</td>
<td>160</td>
<td>46.2%</td>
<td>45.9%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>346</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
### Chi-Square Tests

<table>
<thead>
<tr>
<th>Q11 Sex of Interviewers</th>
<th>Value 1</th>
<th>df</th>
<th>Asymp. Sig. (2-sided) 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pearson Chi-Square</td>
<td>.275</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Likelihood Ratio</td>
<td>.275</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Linear-by-Linear Association</td>
<td>.263</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>337</td>
<td></td>
</tr>
<tr>
<td>1 Male &amp; Female</td>
<td>Value 2</td>
<td>df</td>
<td>Asymp. Sig. (2-sided) 2</td>
</tr>
<tr>
<td></td>
<td>Pearson Chi-Square</td>
<td>.009</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Likelihood Ratio</td>
<td>.009</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Linear-by-Linear Association</td>
<td>.006</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>662</td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 23.88.

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 55.85.

### Symmetric Measures

<table>
<thead>
<tr>
<th>Q11 Sex of Interviewers</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contingency Coefficient</td>
<td>.029</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>337</td>
</tr>
<tr>
<td>1 Male &amp; Female</td>
<td>Nominal by Nominal</td>
<td>Contingency Coefficient</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>662</td>
</tr>
</tbody>
</table>

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.
### LANGUAGE * OCCUGP occupational groups * Q11 Sex of Interviewers

#### Crosstab

<table>
<thead>
<tr>
<th>Q11 Sex of Interviewers</th>
<th>OCCUGP occupational groups</th>
<th>1 unskilled/housewife</th>
<th>2 unemployed</th>
<th>3 farmer/skilled craftsman</th>
<th>4 clerical sales/services</th>
<th>5 self employed/serv profes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male &amp; Female</td>
<td>LANGUAGE 1 monolingua - English</td>
<td>60</td>
<td>18</td>
<td>9</td>
<td>7</td>
<td>14</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>-language % within OCCUGP occupational groups</td>
<td>7.1%</td>
<td>27.3%</td>
<td>11.7%</td>
<td>14.6%</td>
<td>22.6%</td>
<td>16.0%</td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>50</td>
<td>17</td>
<td>31</td>
<td>13</td>
<td>13</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>% within OCCUGP occupational groups</td>
<td>59.5%</td>
<td>25.8%</td>
<td>40.3%</td>
<td>27.1%</td>
<td>21.0%</td>
<td>36.8%</td>
</tr>
<tr>
<td>3 Bilingual</td>
<td>Count</td>
<td>28</td>
<td>31</td>
<td>37</td>
<td>28</td>
<td>35</td>
<td>159</td>
</tr>
<tr>
<td></td>
<td>% within OCCUGP occupational groups</td>
<td>33.3%</td>
<td>47.0%</td>
<td>48.1%</td>
<td>58.3%</td>
<td>56.5%</td>
<td>47.2%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>84</td>
<td>66</td>
<td>77</td>
<td>48</td>
<td>62</td>
<td>337</td>
</tr>
<tr>
<td></td>
<td>% within OCCUGP occupational groups</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>2 Female &amp; Female</td>
<td>LANGUAGE 1 monolingua - English</td>
<td>15</td>
<td>27</td>
<td>19</td>
<td>18</td>
<td>38</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>-language % within OCCUGP occupational groups</td>
<td>9.3%</td>
<td>20.5%</td>
<td>11.6%</td>
<td>18.0%</td>
<td>36.2%</td>
<td>17.6%</td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>77</td>
<td>49</td>
<td>69</td>
<td>23</td>
<td>23</td>
<td>241</td>
</tr>
<tr>
<td></td>
<td>% within OCCUGP occupational groups</td>
<td>47.5%</td>
<td>37.1%</td>
<td>42.1%</td>
<td>23.0%</td>
<td>21.9%</td>
<td>36.3%</td>
</tr>
<tr>
<td>3 Bilingual</td>
<td>Count</td>
<td>70</td>
<td>56</td>
<td>76</td>
<td>59</td>
<td>44</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td>% within OCCUGP occupational groups</td>
<td>43.2%</td>
<td>42.4%</td>
<td>46.3%</td>
<td>59.0%</td>
<td>41.9%</td>
<td>46.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>162</td>
<td>132</td>
<td>164</td>
<td>100</td>
<td>105</td>
<td>663</td>
</tr>
<tr>
<td></td>
<td>% within OCCUGP occupational groups</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

#### Chi-Square Tests

<table>
<thead>
<tr>
<th>Q11 Sex of Interviewers</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male &amp; Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Chi-Square</td>
<td>37.478</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>37.080</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.740</td>
<td>1</td>
<td>.187</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>337</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Female &amp; Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Chi-Square</td>
<td>53.632</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>51.540</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.817</td>
<td>1</td>
<td>.093</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>663</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.69.

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.65.
### Symmetric Measures

<table>
<thead>
<tr>
<th>Q11 Sex of Interviewers</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male &amp; Female Nominal by Nominal Contingency Coefficient</td>
<td>.316</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>337</td>
<td></td>
</tr>
<tr>
<td>2 Female &amp; Female Nominal by Nominal Contingency Coefficient</td>
<td>.274</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>663</td>
<td></td>
</tr>
</tbody>
</table>

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

### Controlling for Language used to Initiate Interview

#### LANGUAGE * URBRUR urban/rural * Q12 Starters

**Crosstab**

<table>
<thead>
<tr>
<th>Q12 Starters</th>
<th>URBRUR urban/rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 urban</td>
<td>2 rural</td>
</tr>
<tr>
<td>1 English starter LANGUAGE language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 monolingua - English</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>54</td>
<td>21.6%</td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>74</td>
<td>29.6%</td>
</tr>
<tr>
<td>3 Bilingual</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>122</td>
<td>48.8%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>250</td>
<td>100.0%</td>
</tr>
<tr>
<td>2 Patwa Starter LANGUAGE language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 monolingua - English</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>49</td>
<td>19.6%</td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>89</td>
<td>35.6%</td>
</tr>
<tr>
<td>3 Bilingual</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>112</td>
<td>44.8%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>% within URBRUR urban/rural</td>
</tr>
<tr>
<td></td>
<td>250</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
## Chi-Square Tests

<table>
<thead>
<tr>
<th>Q12 Starters</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 English starter</td>
<td>Pearson Chi-Square</td>
<td>12.158</td>
<td>2</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>12.237</td>
<td>2</td>
<td>.002</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.097</td>
<td>1</td>
<td>.755</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>468</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Patwa Starter</td>
<td>Pearson Chi-Square</td>
<td>3.215</td>
<td>2</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>3.211</td>
<td>2</td>
<td>.201</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.227</td>
<td>1</td>
<td>.136</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>532</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 38.66.
b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 41.35.

## Symmetric Measures

<table>
<thead>
<tr>
<th>Q12 Starters</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 English starter</td>
<td>Contingency Coefficient</td>
<td>.159</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>468</td>
<td></td>
</tr>
<tr>
<td>2 Patwa Starter</td>
<td>Contingency Coefficient</td>
<td>.078</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>532</td>
<td></td>
</tr>
</tbody>
</table>

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

## LANGUAGE * AGE range * Q12 Starters

**Crosstab**

<table>
<thead>
<tr>
<th>Q12 Starters</th>
<th>LANGUAGE</th>
<th>AGE age range</th>
<th>Count</th>
<th>% within AGE age range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 English starter</td>
<td>monolingua - English</td>
<td>1 18-30</td>
<td>27</td>
<td>15.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 31-50</td>
<td>34</td>
<td>17.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 51-80+</td>
<td>22</td>
<td>21.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>83</td>
<td>17.7%</td>
</tr>
<tr>
<td></td>
<td>monolingual - Patwa</td>
<td>Count</td>
<td>60</td>
<td>34.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 31-50</td>
<td>68</td>
<td>35.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 51-80+</td>
<td>42</td>
<td>40.8%</td>
</tr>
<tr>
<td></td>
<td>Bilingual</td>
<td>Count</td>
<td>87</td>
<td>50.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 31-50</td>
<td>89</td>
<td>46.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 51-80+</td>
<td>39</td>
<td>37.9%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Count</td>
<td>174</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% within AGE age range</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>2 Patwa Starter</td>
<td>monolingua - English</td>
<td>Count</td>
<td>42</td>
<td>24.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 18-30</td>
<td>26</td>
<td>13.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 31-50</td>
<td>20</td>
<td>12.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>88</td>
<td>16.5%</td>
</tr>
<tr>
<td></td>
<td>monolingual - Patwa</td>
<td>Count</td>
<td>55</td>
<td>31.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 18-30</td>
<td>55</td>
<td>31.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 31-50</td>
<td>74</td>
<td>38.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 51-80+</td>
<td>66</td>
<td>40.0%</td>
</tr>
<tr>
<td></td>
<td>Bilingual</td>
<td>Count</td>
<td>78</td>
<td>44.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 18-30</td>
<td>78</td>
<td>44.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 31-50</td>
<td>92</td>
<td>47.9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 51-80+</td>
<td>79</td>
<td>47.9%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Count</td>
<td>175</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% within AGE age range</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>
### Chi-Square Tests

<table>
<thead>
<tr>
<th>Q12 Starters</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 English starter</td>
<td>Pearson Chi-Square</td>
<td>4.102&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Likelihood Ratio</td>
<td>4.134</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Linear-by-Linear Association</td>
<td>3.551</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>468</td>
<td></td>
</tr>
<tr>
<td>2 Patwa Starter</td>
<td>Pearson Chi-Square</td>
<td>11.151&lt;sup&gt;b&lt;/sup&gt;</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Likelihood Ratio</td>
<td>10.746</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Linear-by-Linear Association</td>
<td>3.672</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>532</td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 18.27.

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 27.29.

### Symmetric Measures

<table>
<thead>
<tr>
<th>Q12 Starters</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 English starter</td>
<td>Contingency Coefficient</td>
<td>.093</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>468</td>
</tr>
<tr>
<td>2 Patwa Starter</td>
<td>Contingency Coefficient</td>
<td>.143</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>532</td>
</tr>
</tbody>
</table>

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.
# LANGUAGE * SEX gender * Q12 Starters

## Crosstab

<table>
<thead>
<tr>
<th>Q12 Starters</th>
<th>LANGUAGE</th>
<th>Count</th>
<th>% within SEX gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 monolingua - English</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 English starter</td>
<td>1</td>
<td>39</td>
<td>17.6%</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>78</td>
<td>35.3%</td>
<td>170</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>104</td>
<td>47.1%</td>
<td>215</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>221</td>
<td>100.0%</td>
<td>468</td>
</tr>
<tr>
<td></td>
<td>2 monolingual - Patwa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Patwa Starter</td>
<td>1</td>
<td>47</td>
<td>17.2%</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>103</td>
<td>37.6%</td>
<td>194</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>124</td>
<td>45.3%</td>
<td>249</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>274</td>
<td>100.0%</td>
<td>531</td>
</tr>
<tr>
<td></td>
<td>3 Bilingual</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Chi-Square Tests

<table>
<thead>
<tr>
<th>Q12 Starters</th>
<th>Pearson Chi-Square</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 English starter</td>
<td>Pearson Chi-Square</td>
<td>.238&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Likelihood Ratio</td>
<td>.238</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Linear-by-Linear Association</td>
<td>.109</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>468</td>
<td></td>
</tr>
<tr>
<td>2 Patwa Starter</td>
<td>Pearson Chi-Square</td>
<td>.612&lt;sup&gt;b&lt;/sup&gt;</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Likelihood Ratio</td>
<td>.612</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Linear-by-Linear Association</td>
<td>.512</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N of Valid Cases</td>
<td>531</td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 39.19.

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 42.59.
### Symmetric Measures

<table>
<thead>
<tr>
<th>Q12 Starters</th>
<th>Nominal by Nominal</th>
<th>Contingency Coefficient</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 English starter</td>
<td>Nominal by Nominal</td>
<td>Contingency Coefficient</td>
<td>.023</td>
<td>.888</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td></td>
<td></td>
<td>468</td>
<td>531</td>
</tr>
<tr>
<td>2 Patwa Starter</td>
<td>Nominal by Nominal</td>
<td>Contingency Coefficient</td>
<td>.034</td>
<td>.736</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td></td>
<td></td>
<td>531</td>
<td>531</td>
</tr>
</tbody>
</table>

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

### LANGUAGE * OCCUGP occupational groups * Q12 Starters

#### Crosstab

<table>
<thead>
<tr>
<th>Q12 Starters</th>
<th>Language</th>
<th>OCCUGP occupational groups</th>
<th>Count</th>
<th>% within OCCUGP occupational group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 English start</td>
<td>monolingual - English</td>
<td>1</td>
<td>10</td>
<td>9.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>20</td>
<td>21.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>16</td>
<td>14.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>13</td>
<td>18.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>24</td>
<td>27.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>83</td>
<td>17.7%</td>
</tr>
<tr>
<td>2 monolingual - Patwa</td>
<td>Count</td>
<td>52</td>
<td>51.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>32</td>
<td>33.7%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>45</td>
<td>40.2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>25.4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>23</td>
<td>26.1%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>170</td>
<td>36.3%</td>
</tr>
<tr>
<td>3 Bilingual</td>
<td>Count</td>
<td>40</td>
<td>39.2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>43</td>
<td>45.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>51</td>
<td>45.5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>40</td>
<td>56.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>41</td>
<td>46.6%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>215</td>
<td>45.9%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>102</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within OCCUGP occupational group</td>
<td>95</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>112</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>71</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>88</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>468</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>2 Patwa Start</td>
<td>monolingual - Patwa</td>
<td>Count</td>
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<td>15.6%</td>
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<td>28</td>
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<td>% within OCCUGP occupational group</td>
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<td>79</td>
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<td>Total</td>
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<td>100.0%</td>
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### Chi-Square Tests

<table>
<thead>
<tr>
<th>Q12 Starters</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 English starter</td>
<td>Pearson Chi-Square</td>
<td>23.722&lt;sup&gt;a&lt;/sup&gt;</td>
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</tr>
<tr>
<td></td>
<td>Likelihood Ratio</td>
<td>23.611</td>
<td>8</td>
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<tr>
<td></td>
<td>Linear-by-Linear Association</td>
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<td>1</td>
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<td></td>
<td>N of Valid Cases</td>
<td>468</td>
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<tr>
<td>2 Patwa Starter</td>
<td>Pearson Chi-Square</td>
<td>60.378&lt;sup&gt;b&lt;/sup&gt;</td>
<td>8</td>
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<tr>
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<td>Likelihood Ratio</td>
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<tr>
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<td>Linear-by-Linear Association</td>
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<tr>
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<td>N of Valid Cases</td>
<td>532</td>
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</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.59.
b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.74.

### Symmetric Measures

<table>
<thead>
<tr>
<th>Q12 Starters</th>
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<tr>
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<td>Nominal by Nominal Contingency Coefficient</td>
<td>.319</td>
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<tr>
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<td>N of Valid Cases</td>
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</table>

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.