An Evaluation of Socio-Economic Classification Systems

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ABSTRACT

This thesis evaluates some commonly used socio-economic classification systems. Some of the systems evaluated have been used for many years in the market research industry in New Zealand whilst others are recent additions or are more commonly used in the United Kingdom.

The main objective of this study was to test the ability of the systems to predict purchasing levels of consumer products and services. The second objective was to evaluate how well the various systems predict brand choice.

A sample of 1596 repondents was provided by AGB:McNair from their media survey database. Multiple regression was used to predict the level of usage of each product, with the adjusted R^2 value of the equation as the measure of the power of the classification system. Nominal variables, such as brand last used, were crosstabulated against the clasification categories, and Lambdas calculated. A further measure of their ability of the classification systems to predict brand choice was obtained by performing discriminant analysis, which generated classification tables. The percentage of cases correctly classified provided a further measure of performance.

The various classification systems were not very good at predicting purchasing behaviour. The better systems accounted for about 2% or 3% of the variation in quantities purchased. The various classification systems were also not very good at predicting brand choice. Even though the various classification systems explained little of the variation in quantities purchased and brand choices, they are still very useful. The socio-economic classification systems can be used as a starting point from which better predictors of purchasing behaviour can be developed.

ACKNOWLEDGEMENTS

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1 INTRODUCTION

1.1 BACKGROUND

This thesis evaluates some commonly used socio-economic classification systems. Some of the systems evaluated have been used for many years in the market research industry in New Zealand whilst others are recent additions or are more commonly used in the United Kingdom.

It is almost universal survey practice to collect personal information about informants and their households, usually at the end of an interview. The personal information collected usually deals with income, occupation, household composition and other demographic details. This personal information is known as classification data, and has a number of uses.

Groups may be formed from the classification data and used to form strata or quotas for surveys, thus ensuring a more representative sample and greater precision. Classification data can provide consistent sub-groups of wide application across many data sources, provided these use a common system of classification. For example, in the United Kingdom buyer behaviour information on one survey can be linked by social grade to media exposure on another. Finally, classification data can be used to locate concentrations of groups of

marketing interest; for example, where the best place is to locate a

new supermarket.   Some classification systems classify individuals

while others classify households.   When a household is classified all

individuals in the household, regardless of their incomes, age and

other details, adopt the household classification.

Many of the classification systems in New Zealand are used because they

were successful overseas.   There has been no systematic evaluation of

the relative merits of the various classification systems to predict

purchasing levels of consumer products and services or predict brand

choice for New Zealand.

1.2 OBJECTIVES

The main objective of this study is to test the ability of the systems to predict purchasing levels of consumer products and services. The second major objective of this study is to evaluate how well the various systems predict brand choice.

1.3 METHOD

Every week AGB:McNair Limited conduct a regular survey, known as the media survey, of 200 New Zealanders. The survey collects information on magazine readership and purchasing of consumer products and services. The reports constructed from this survey are used by most media houses and advertising agencies in New Zealand. The survey involves personal interviews with respondents over 10 years old from throughout New Zealand. A more detailed description of the survey method is given in Appendix 1. Agreement was obtained from McNairs to use their survey as the database for this study. They agreed to include some additional questions on the demographic composition of the households they interview, thus enabling the construction of the classification systems used in this study. The survey was conducted in early 1984 and included 1596 respondents.

The analysis of the survey was conducted by using the SPSS[x] statistical package. Multiple regression was used to predict the level of usage of each product, with the adjusted R^2 value of the equation as the measure of the power of the classification system.

The adjusted R^2 values were then averaged over product groups to give an indication of the various systems' ability in a specific product group. The adjusted R^2 values for each specific system were also averaged over all products, thus giving an indication of the overall

ability of the various systems

Nominal variables, such as brand last used, were crosstabulated against the classification categories, and lambdas calculated. A further measure of ability of the classification systems to predict brand choice was obtained by performing discriminant analyses, which generated classification tables. The percentage of cases correctly classified provided a further measure of performance.

There are a number of problems in assessing the overall ability of the various classification systems. In this study, all classification systems were tested on all the consumption variables. In practice, some of the systems would not usually be used on some specific products as they are known by common sense to be of little use in prediction of consumption or brand choice. Therefore the inclusion of the R^2s, lambdas and percentage misclassified obtained from these cases has dragged down the overall averages for those systems. Some of the systems are designed to predict individual behaviour while others are designed to predict household behaviour. Much of consumption information used in the evaluation of the systems was on individual consumption, therefore the overall R^2 values are weighted in favour of those systems that were better at predicting individual behaviour. Further details on the statistical analysis undertaken in this study is included in Appendix 1.

2.   SUMMARY

Quantities Purchased

The various classification systems were not very good at predicting purchasing behaviour.   The better systems accounted for about 2% or 3% of the variation in quantities purchased.   Similar studies in other countries have also reported only small amounts of the variation in purchasing behaviour as explained by socio-economic classification systems.   Most of the classification systems predicted the purchase of personal products, such as shampoo and deodorants, reasonably well.

The following systems performed consistently better than the others:

    Sagacity

    McNair occupation groups

    Age of respondent

Brand Choice

The various classification systems were also not very good at predicting brand choice.

Various overseas studies provided little evidence to support socio-economic classification systems as good predictors of brand choice.

The following classification systems were the better predictors of brand choice:

Sagacity

McNair occupation groups

Age of respondent

Even though the various classification systems explained little of the variation in quantities purchased and brand choices, they are still very useful. The classification systems can used as a starting point from which better predictors of purchasing behaviour can be developed. This can be done by adding new variables to the classification system. Age of respondent was added to all the classification systems and new estimates of R^2 were calculated for a number of products. The addition of age to the systems increased the amount of variation explained by the systems by about 4%. Many similar adaptions of the standard systems can be performed.

3 DESCRIPTIONS OF CLASSIFICATION SYSTEMS

CLASSIFICATION SYSTEMS USED IN THE UNITED KINGDOM

There are several classification systems widely used in the United Kingdom. The social grade system is universally used by market research agencies. Other systems in use include SAGACITY, ACORN, Leo Burnett Life Style and MONITOR-Value Groups. The Registrar General's systems are used for official statistics.

Social Grade

The most widely used classification system in the United Kingdom is Social Grade. This was developed for the National Readership Survey and is used universally by market research and advertising agencies. The social grade is based on the occupation of the head of the household. Occupation is used as an indication of the status or general standing of the person in the community. The social grade found for the head of the household is applied to all members of the household. If occupational information is incomplete or refused then a number of factors such as qualifications held are collected. See Appendix 2 for details.

The social grades used are shown below.

Grade	Description	% of Households
A	Upper Middle Class	3%
B	Middle Class	13%
C1	Lower Middle Class	22%
C2	Skilled Working Class	32%
D	Semi-skilled and Unskilled Working Class	21%
E	Households at the lowest level of subsistence	9%

A detailed description of the social grades is included in Appendix 2.

Interlaced Demographics

Interlaced demographic classification systems use standard demographic variables such as age and income of respondent and group the scores on these variables into a classification system.

A recent development using interlaced demographic data is SAGACITY. SAGACITY was developed by Cornish (1981) at Research Services Limited. SAGACITY uses classification data which is routinely collected on the National Readership Survey and most other surveys. The aims of SAGACITY were described by Cornish as "to provide an analysis using the standard demographic data in a market survey to arrive at a target market description... to provide a means of assessing media coverage within the defined target market". The demographic variables used are life-cycle, income and social grade. These three variables are interlaced to provide 12 classification groups.

The life-cycle stages used are shown below.

Life-cycle stage	Description	% of adult population
Dependant:	adults from 15-34 who are not heads of households or housewives, unless they are childless students in fulltime education.	16%
Pre-family:	adults from 15-34 who are heads of households or housewives but are childless.	8%
Family:	adults aged less than 65 who are heads of households or housewives in households containing one or more children under 21.	36%
Late:	includes all other adults whose children have left home or who are 35 years or over and childless.	20%

Social grade groups, "white collar" and "blue collar" are used to split the four life-cycle cells into eight cells. The social grades A, B and C1 are the white collar group and the C2, D and E grades are the blue collar group.

The cells in family and late stages are each split into "better off" and "worse off" groups thus producing four cells which brings the total number of cells to 12.

Income is collected on a ten point scale used on the National

Readership Survey. The National Readership Survey collects the net income of the chief income earner of the household. The SAGACITY system uses this as the basis for the better off and worse off split. Adjustments are made for the working status of the chief income earner's spouse.

Each step on the scale is approximately 25% greater than its predecessor. The scale is adjusted every six months to allow for the predicted rate of inflation over the six month period. With a constant price income scale the real value of the income groups remains constant over time. This scale is used on the National Readership Survey where respondents are asked which one of the income points is closest to the income after taxation of the chief wage earner. The scales used during 1980 are shown below.

Income Code	Income Scales (Sterling Pounds)	
	January-June 1980	July-December 1980
0	1,120	1,210
1	1,400	1,520
2	1,750	1,820
3	2,190	2,370
4	2,730	2,960
5	3,420	3,700
6	4,270	4,630
7	5,340	5,880
8	6,680	7,230
9	8,350	9,040

The cutoff points for better off and worse off vary between the family and late stages of the life-cycle. They also vary between white collar and blue collar occupations.

For example, a white collar adult in the family stage is classified as better off if the head of the household's income is in the two highest of the ten brackets, so long as he or she has no working spouse. If the spouse is working part time, a third income bracket is included; if the spouse is working full time, the four highest brackets are classified as better off.

The following are the 12 groups formed by SAGACITY. The table includes the percentage of households in each group in the United Kingdom.

	Dependant	Prefamily	Family	Late
white collar (A,B,C1)	6.2%	4.0%	better off 6.3%	better off 4.9%
			worse off 7.6%	worse off 9.4%
blue collar (C2,D,E)	9.4%	3.9%	better off 8.7%	better off 6.7%
			worse off 13.8%	worse off 19.0%

Cornish compared the discriminatory ability of SAGACITY with that of age and social grade by comparing the average behaviour of all adults. The comparison used an index format, with 100 representing the average behaviour of all adults. Cornish then pointed out large deviations

from the average behaviour (100) obtained by various systems. The study involved the media exposure of a sample from the National Readership Survey. The age and social grade breakdown suggested that the most intensive audience of independent radio were the blue collar youngest adults. However, the SAGACITY analysis showed that the dependent stage young people in white collar households listened 9% more intensively than their blue collar equivalents. It was only in the prefamily and family stages that blue collar adults emerged as the more intensive listening group.

This extra detail that SAGACITY added also appeared for cinema attendance and Sunday newspapers. SAGACITY also discriminated well for package holidays and basic durables.

Cornish provides evidence that SAGACITY discriminates both in relation to markets and media. SAGACITY adds a great deal of information to the picture of media usage obtained by conventional analysis. SAGACITY often provides discrimination in markets where social grade analysis would provide little discrimination. A comprehensive description of SAGACITY is included in Appendix 3.

Locational Classification

The ACORN system was developed in 1977 at the Centre for Environmental
Studies in the United Kingdom.   ACORN classifies areas and the
households in them by the predominant housing characteristics of the
area.

ACORN was developed from a cluster analysis of 40 variables measured on
the 1971 census of the United Kingdom. The scores on the 40 variables
were computed for a sample of nearly 4000 wards and parishes which are
the fundamental district units in the Census.   It is unclear which
variables were used in the analysis, but Bermingham, Baker and
MacDonald (1979) state the following were the 11 "key" variables used:

        level of unemployment
        proportion of students
        number of two car households
        proportion of immigrants from the Commonwealth
        proportion of the population working in a particular
         sector of industry or commerce,
        Registrar General's Social Class
        age structure
        tenure type
        five year migrancy
        level of overcrowding
        level of basic housing amenities

These variables aimed to measure the key social, housing and
demographic characteristics of the area.   A 36-cluster solution was
initially attained; this was reduced to a seven-cluster solution.

ACORN was modified at British Market Research Limited by Bermingham, Baker and MacDonald (1979). They felt that clusters 1, 2, 6 and 7 contained very disparate groups. This led them to sub-divide those groups and produce 11 clusters. The 11-cluster solution is shown below.

Group	Title	% of U.K. population
1A	Modern family housing for manual workers	12
1B	Modern family housing for higher incomes	8
2A	Older housing of intermediate status	15
2B	Very poor quality older terraced housing	6
3	Rural areas	6
4	Urban local authority housing	18
5	Housing with most overcrowding	3
6A	Low income areas with immigrants	6
6B	Student and high status non-family areas	5
7A	Traditional high status suburbia	18
7B	Areas of elderly people (often seaside resorts)	4

Bermingham et al. claim that ACORN provides an excellent tool for sampling and survey design. ACORN is also claimed to extend social grade as a measure of status. This claim is based on a comparison of the discriminatory ability of ACORN and social grade on a study of heavy wine drinkers. The social grade analysis showed ABs, who represent 15 per cent of all adults, account for 49 per cent of heavy wine drinkers. The analysis using ACORN showed the "jet set" (group 6B) living in the high-status inner city areas, where 35 per cent of the population are AB, have three and a half times the average wine consumption. Those in the low income areas with a high immigrant population (group 6A) are as likely to be heavy wine drinkers as their better-off counterparts in affluent suburbia (group 7A) or in the

retirement areas (group 7B). The low income areas with a high immigrant population (group 6A) have twice the per capita consumption of those living in the agricultural areas (group 3) where 19 per cent of the population are ABs. The ACORN system has been extensively used during the last year by the UK Post Office to assist direct mail advertisers (Chilvers and Mcmanus 1983). A detailed description of the modified ACORN clusters is included in Appendix 4.

Lifestyle Classifications

Leo Burnett Lifestyle

A lifestyle study was carried out in 1972 by Leo Burnett and repeated in 1981 (cited by Twyman, 1981).

The study involved a large sample of about 6,500 men and women.   The questionnaire collected the following types of information:

(1) Agreement or disagreement with about 230 life style statements. For example "I often eat chocolate bars and snacks between meals".

(2) Media information for print media, cinema, radio, and weight of television viewing.

(3) Consumption and usage for about 90 products.

(4) Standard classification data, such as age, social grade, and education.

Separate analyses were conducted on the men's data and on the women's data. The analysis was in two stages and involved:

(1) Factor analysis of the 230 statements. The appropriate factor solution was chosen and a selection of statements was then made on the criterion of them loading highly with the factors in the chosen factor solution.

(2) A cluster analysis was then carried out on the factor scores, with a seven cluster solution being chosen for women and a six cluster solution being chosen for men.

It is not clear what method of factor analysis was actually used. It is likely that principle component analysis was used. Nor do they give details any details on the clustering algorithm. The number of clusters and the compostion of clusters are highly influenced by the specific clustering algorithm. Each cluster solution was given a name such as:

"Andy: He's young, he's got money to spend. Andy seeks his pleasures quite selfishly and has few moral scruples. He's educated and ambitious in his job . Up grade."

This system was then offered as a considerable advance in the defining of relevant special interest groups for advertisers or media owners. Monk (1973) wrote a critical appraisal of the Burnett Life Style research. He concluded that the Burnett Life Style system did not discriminate better than the traditional classifications. Monk used the range of values (highest to lowest) for average issue readership as his measure of discriminatory ability. The evidence provided by Monk

involved a comparison between the amount of discrimination obtained from the Burnett Life Style with those it was meant to replace. The comparison showed social grade provided greater discrimination for media exposure and television preference than did the Burnett Life Style system. When the social grades were interlaced with age and education the discrimination by the traditional classification systems was even better. Monk also believed that this system was unsuitable for general classification and suggested that "the promotion of Life Style categories as a general and meaningful consumer classification that is judged to be a misguided irrelevance to the use of attitude and product data for advertising decisions.

Monitor Value Groups

In recent years a number of lifestyle classification systems have been developed in the United Kingdom. The MONITOR Value Groups (Taylor Nelson & Associates) have been the most recent addition. This system aims to "help companies include social change into corporate planning." It appears to be available only to the clients of Taylor Nelson & Associates. The Value Groups are classification groups developed from answers to attitude questions. In the United Kingdom 15,000 interviews were conducted between 1973 and 1981. Each year 1500 respondents were interviewed to measure social trends ranging from consumer scepticism to personal creativity. From the interviews, 158 scaled items were

analysis.

Nelson reported a comparison between the discriminatory ability of value groups and social grades for readership of three publications. She claimed that in some cases value groups discriminate better than social grade and in these cases it is a powerful discriminator. However, compared to social grade the value groups showed inconsistency in their discriminatory ability. For example, for the Radio Times and T.V. Times social grade discriminated better than value groups, while, for the Reader's Digest, value groups discriminated better than social grade.

Official United Kingdom Classifications

There are two systems used in official statistics. They are the Registrar General's Classification of Social Class and the Registrar General's Classification of Socio-Economic Groups.

Social Class

The classification of social class is based on occupation and has had to be revised from time to time due to shifts in occupational structure. The occupations are ranked in terms of education, skill, responsibility and general standing in the community. This system appears to place more emphasis on the skills needed for an occupation whilst the social grade system used by the National Readership Survey concentrates on the status or general standing the occupation has in the community. No evidence is available on the discriminatory power of social class. However social class is used as a "key" variable in the ACORN analysis.

The six current levels of social class are shown below.

    (1) Professional
    (2) Intermediate occupations (including most managerial
        and senior administrative occupations)
    (3) Skilled occupations
       (N) Non-manual
       (M) Manual
    (4) Partly skilled occupations
    (5) Unskilled occupations

Socio-economic Groups

The Registrar General's Socio-Economic Groups (SEG's) are groups of unranked occupations. The aim is to group people whose social, cultural and recreational standards are similar. No evidence is available on the discriminatory power of this system.

The groups are shown below.

(1) Employers and managers in central and local government, industry,commerce, etc - large establishments.
(2) Employers and managers in industry, commerce etc - small establishments.
(3) Professional workers - self employed.
(4) Professional workers - employees.
(5) Ancillary workers and artists, foremen and supervisors non-manual.
(6) Junior non-manual workers
(7) Personal service workers.
(8) Foremen and supervisors - manual.
(9) Skilled manual workers.
(10) Semi-skilled manual workers.
(11) Unskilled manual workers.
(12) Own account workers (other than professional).
(13) Farmers - employers and managers.
(14) Farmers - own account.
(15) Agricultural workers.
(16) Members of the Armed Forces.
(17) Inadequately described occupations.

CLASSIFICATION SYSTEMS USED IN THE UNITED STATES OF AMERICA

There is no universally accepted socio-economic classification system in the United States of America such as the social grade system used in the United Kingdom.

National Opinion Research Centre (NORC)

A study was carried out in 1947 by North and Hatt at the National Opinion Research Centre, aimed at establishing "the role of occupation as one distinctive mark of social class distinction" (Reiss, 1961). North and Hatt used 2920 respondents to score 90 occupations on their "general standing" on the following scale.

1 Excellent standing
2 Good standing
3 Average standing
4 Somewhat below average standing
5 Poor standing

A weight was given to each response category and the percentage in each response category multiplied by its weight. The sum of the weighting of the five percentages was divided by five to obtain a single score for each occupation. The score distribution had a maximum value of 100 and a minimum of 20.

Hodge, Siegel and Rossi

In 1963 Hodge, Siegel and Rossi replicated the 1947 NORC study. They used a national sample of 651 and found that there were no substantial shifts in relative prestige since 1947 on the 90 occupations used.

Hodge, Siegel and Rossi then developed a rating scale (Hodge, Siegel and Rossi 1964). Respondents were asked to rate social standing by sorting cards with occupational titles on them along a nine point ladder. The first, fifth and ninth boxes were labelled "bottom", "middle" and "top" respectively. The ratings were aggregated to yield a prestige score (0-100) for each detailed (3-digit) occupation in the 1960 occupational classification of the U.S. Bureau of Census.

Duncan

Duncan developed a scale to provide a list of socio economic status levels that could be obtained from information provided from birth and death certificates (Reiss 1961). Duncan used the occupational ratings from the NORC study as the criterion variable in the development of his SES levels. Education and income were the occupation characteristics used.

Education was measured by the percentage of male workers in each occupation who were high school graduates. Income was measured by the percentage of male workers in each occupation reporting incomes of $3500 or more in 1949. Both these variables were adjusted for differences in age composition among occupations. Duncan weighted the age distribution of each occupation using the age - specific education and income patterns as weights.

Many of the 90 NORC occupational ratings were not used in the development of the Duncan scale. The occupations from the NORC study were excluded if they did not match the 1947 Census of Population occupation descriptions well. Many of the NORC occupations were too specific to match the census classification and were excluded.

The 45 remaining occupations with the education and income information were then used in a multiple regression analysis. The following equation expressing the estimated prestige ratings, X1 as a function of the predictors is;

$$X1 = 0.59X2 + 0.55X3 - 6.0$$

> X1   the % of "excellent" or "good" ratings received by an occupation in the prestige survey.
>
> X2   the % of men in the occupation with an income of $3500 or more in 1949.
>
> X3   the % of men in the occupation with four years of high school or higher educational attainment.

Although the index weights were derived from data on only 45 occupations, the socio-economic level of any occupation can be computed if the necessary education and income information is known.

Warner Index

Warner, Meeker and Eells (1960) developed an index of status characteristics (ISC) in 1949. The Warner Index of Status Characteristics (ISC) has been widely used in the U.S.A. The head of the family is allocated a point on the ISC. All other members of the family who are unmarried and living in the same household are assigned the same point on the index as given to the head of the family.

The following characteristics are used to determine the ISC level of the head of the family:

occupation (weighted by a factor of 4)

source of income (weighted by a factor of 3)

house type (weighted by a factor of 3)

dwelling area (weighted by a factor of 2)

The head of the family is given a level on each of the status characteristics and the corresponding value of the level is multiplied by the weight and summed across the four indicators to obtain the ISC score.

The Warner index of status characteristics was used in a study by Hirsch and Peters (1974). They used correlation coefficients as the measure of their predictive power. The ISC, age, income and lifecycle were tested for their ability to predict frequency of use of entertainment activities. They found R^2 values ranging from 0 to .24 for the ISC. They concluded that all variables were very useful in predicting frequency of entertainment use.

U.S Bureau of Census

The United States survey classifications tend to follow the Bureau of Census classification. The classification of occupation follows:

        Professional and technical,
        Managers and administrators,
        Clerical and sales,
        Craftsmen and foremen,
        Other employed.

The U.S. Bureau of the Census combines occupation, family income, and education into a socio-economic index. The individual is given a score on each of the following demographic variables and theses three scores are averaged for the individual to produce an overall SES score. This system was used in a study of residential telephone subscribers by AT&T (Ellis 1975).

INCOME	INCOME SCORE
Under $3000	15
$3000 - 4999	31
$5000 - 7499	62
$7500 - 9999	84
$10000 - 14999	94
$15000 - 19999	97
$20000 - 29999	99
$30000 & over	100

EDUCATION	EDUCATION SCORE
Some grade school	10
Grade school	23
Some high school	42
High school graduate	67
Some college	86
College graduate	93
Graduate school	98

OCCUPATION	OCCUPATION SCORE
Labourers	20
Retired	33
Student	33
Housewife	33
Unemployed	33
Service workers	34
Operators	45
Craftsmen	58
Clerical & sales	71
Managers	81
Professionals	90

The following socio-economic status categories are used after average
scores have been computed.

SOCIAL CLASS	SES SCORE
Lower	0 - 44
Lower middle	45 - 69
Upper middle	70 - 89
Upper	90 - 99

CLASSIFICATION SYSTEMS USED IN NEW ZEALAND

Redmond and Davis

Redmond and Davis (1940) developed an occupational scale for New Zealand. The scale was developed at the New Zealand Council for Educational Research and was based on the level of training and skill needed for occupations in New Zealand. The eleven levels on the scale were subjectively derived by Redmond and Davis.

The 11 levels of the Redmond and Davis scale are shown below.

      (1) Higher Professional and Administrative work.
      (2) Lower Professional, Technical and Executive work.
      (3) Clerical and Highly Skilled.
      (4) Skilled work.
      (5) Semi-skilled Repetitive work.
      (6) Unskilled Repetitive work.
      (7) Farming.
      (8) Deceased.
      (9) Unemployed.
     (10) Unspecified.
     (11) Pensioner.

No evidence is available on the discriminatory ability of the Redmond and Davis scale. However, a modified version of the scale was used in the standardisation of two intelligence tests in New Zealand. For the study the first two groups were combined and groups 8-11 were dropped. The research involved intelligence testing of a sample of 1000 school children from throughout New Zealand. The children were classified into six groups according to their fathers' occupations. The order of the occupational groups according to mean IQ, with the highest average at the top is shown below.

Professional, administrative, technical and executive
Clerical and highly skilled
Skilled
Semi skilled repetitive
Farmer
Unskilled repetitive

The Redmond and Davis scale was used by Congalton (1950) in a study of social grading in New Zealand. Congalton criticised the Redmond and Davis scale for being arbitrarily based and argued that an objective classification system was needed in New Zealand. The detailed Redmond and Davis scale is shown in Appendix 5.

Congalton and Havighurst

Congalton and Havighurst (1954) developed a status ranking of occupations for New Zealand. In their first study they asked over 1100 respondents to rank 30 occupations in terms of their status. From this they developed an initial seven point scale. No information is available on the nature of the sample used.

A second study using all occupations reported in the 1945 Census with more than 1000 male members was conducted. Congalton and Havighurst also gave 73 university students 116 cards each bearing the name (and detailed description where necessary) of one of the occupations o The students were asked to score on a seven point scale the status each occupation carried in the community.

A modified version of this system was developed by Havighurst (1954). The major difference is a change of score for the high status farmer from a (2) to a (1) on the modified system. The modified version was used on a study of children and society in New Zealand. The Congalton and Havighurst system was used extensively in New Zealand for twenty years by education and social researchers.

Elley and Irving (1974) criticised the Redmond and Davis as well as the Congalton and Havighurst scales for not presenting information on the proportion of workers to be found in each occuapational group. This meant that neither scale could be used to test the representativeness of a sample. The Congalton-Havighurst Scale is included in Appendix 6.

Elley and Irving

Elley and Irving (1974) developed a socio-economic index for males based on the typical education and income of each occupation found in the 1966 Census. Each occupation was assigned to one of six "levels" on the basis of typical income and education. Elley and Irving revised their index in 1976 with data from the 1971 Census (Elley and Irving 1976). Later they published a similar index for the female labour force of New Zealand (Irving and Elley, 1977).

The following method was used to form the indices. The median reported income for 451 male occupations was standardised. For the same occupations the median education level was calculated and standardised. The two sets of standardised values were then summed, the occupations were ranked according to these combined values, and grouped into six levels. For the female index 271 occupations were used.

The E-I indices are the most widely used classification systems in New Zealand, although the E-I indices have not been adopted by the Department of Statistics. The conversion of occupational information at the two digit level on the NZSCO system to its E-I equivalent produces numerous errors. At least three market research organisations use the E-I indices: AGB:McNair, Colmar & Brunton and the Market Research Centre.

The following tables show typical occupations at each E-I level for males and females plus the percentage of the working population to be found in each level at the 1976 census.

Socio-Economic Level		Typical Occupations	% of Working Population
Males	1	Accountant, Botanist, Doctor	4.7%
	2	Journalist, Surveyor, Curator	9.0%
	3	Clerk, Farmer, Fireman	26.6%
	4	Carpenter, Butcher, Cashier	29.2%
	5	Forestry Worker, Cook, Glazier	18.1%
	6	Janitor, Fencer, Groundsman	12.4%
Females	1	Dentist, Economist, Engineer	2.3%
	2	Actress, Chief Clerk, District Nurse	5.9%
	3	Proof Reader, Farmer, Bank Officer	23.8%
	4	Dispatch Clerk, Dancer, Forewoman	34.8%
	5	Waitress, Lorry Driver, Bartender	20.7%
	6	Orchard Worker, Dry Cleaner, Food Packer	12.5%

Elley and Irving (1976) discussed some of the limitations of their scales. The Census of New Zealand does not provide enough detail in some cases. For example, opticians and optometrists are combined in the census. The Census also fails to distinguish between farmers regardless of the size of their properties; all farmers appear in level three.

Knowles (1980) noted two main problems with the E-I indices. Firstly, the decision to combine income and education seems arbitrary. Elley and Irving see them as the two most important factors in socio-economic status but do not justify their equal weighting. Secondly, shifting

income levels can cause occupations to shift on the scale. For example, farmers may experience a bad year and therefore move down the scale

Buttle (1980) investigated the practical problems in using the E-I indices. A list of 500 occupations was given to a convenience sample of 120 people. The sample consisted mainly of students but included several staff of the Market Research Centre at Massey University. Each person was given the alphabetical occupation lists and associated levels provided by Elley and Irving in their 1976 and 1977 studies. The sample members were asked to assign the correct level to each of the 500 occupations.

Buttle found the following practical problems with the E-I indices. Not all occupations appear in the published E-I and I-E lists. There were very few occasions (5 out of 500 jobs) where all 56 coders agreed on what should be the correct level. For a variety of reasons, some occupations are difficult to code. Firstly, unpaid occupations do not appear in the published lists, because they do not satisfy the census definition of occupation. Secondly, some reported job titles are ambiguous or give inadequate detail. Thirdly, the published lists do not assign levels to double-or triple-barrelled job titles. Finally, some jobs have obscure "exact equivalents" in the published lists.

A revision of the E-I indices was conducted by Johnston (1983). The revision included a number of changes. Information from the 1976 Census was used as the main database. Finer classifications of occupations were used. For example, a breakdown of income by sex by rank within the Armed Forces was obtained. This information obtained from the Armed Forces provided much finer classification than usually available from the Deparment of Statistics. Credit was given by way of a standard score for all types of educational attendance that was recorded in the data. This however led to inconsistencies. For example, a primary school teacher with one university paper would credited with a score of 9 on the scale, where as a university professor with a Phd would only be credited with a score of 4. The Census combines incomes of $20,000 or more into a single group. The Inland Revenue Department provided supplementary information for those workers whose income was $20,000 and above, which enabled a median income to be calculated for this group. The division of the working population into categories was done on a statistical basis using the normal distribution. A copy of the revised E-I indices are included in Appendix 8.

The New Zealand Standard Classification Of Occupations

The New Zealand Standard Classification of Occupations (NZSCO) is based
on the International Standard Classification of Occupations (ISCO)
(Department of Statistics 1976).   The NZSCO is a four level system
providing successively finer detail as shown below.

NUMBER OF GROUPS	GROUP TITLES
8	Major Groups
84	Minor Groups
307	Unit Groups
1115	Groups

The classification system is based on the type of work performed.   The
eight major groups represent very broad fields of work. The major
groups are shown below.

1 Professional, Technical and Related Workers
2 Administrative and Managerial Workers
3 Clerical and Related Workers
4 Sales Workers
5 Service Workers
6 Agricultural, Animal Husbandry and Forestry Workers, Fishermen
  and Hunters
7 Production and Related Workers, Transport Equipment Operators
  and Labourers
8 Workers not Classifiable by Occupation

The major groups are provided when there is a relatively large number
of workers;   most of these groups also cover a large range of
occupations. The unit group is a group of occupations related to each

other by similarity of the characteristics of their work. A group (occupation) is the narrowest category. Each group is identified by a four digit code number. The following is an example of the system.

```
Major group    6      Agricultural, Animal Husbandry and
                       Forestry Workers and Hunters
Minor group   61      Farmers
Unit group   617      Horticultural Farmers
Group       6172      Nurserymen.
```

A Social Grade System Used In New Zealand.

The following Social Grade system which uses six standard occupational
groups was obtained from a market research company.

The groups used are:

    Professional and Managerial
    Other White Collar
    Skilled
    Semi-Skilled
    Unskilled
    Retired and Non-Working

The six groups used in the system are very similar to the six levels on
the social grade system used in the United Kingdom on the National
Readership Survey.

Interlaced Demographics

The interlacing of demographics is also popular. However, it was not possible to obtain details of the algorithms used by commercial research companies. The system described below is nevertheless believed to be similar to that used in one major research company for the classification of individuals. The system uses education, household income and composition, as well as a modified NZSCO.

Education is measured on a six-point scale. The education level is increased by one level if the respondent is over 50 years old. This adjustment aims to take into account the problem of education being measured over a long time period. Occupation of the chief income earner is also measured on a six point scale using compressed groupings of the NZSCO system. Combined household income is measured on an 11-point scale and is adjusted for the number of dependent children in the household, the combined income level of the household being reduced by one level for every dependent child in the household with a maximum reduction of three levels. The values in the occupation, education and income variables are added together. Six socio-economic groups are obtained from the combined range of values.

An SPSS[x] version of this system is included in Appendix 7.

Dixon, Dodge and Spears

During 1976 Dixon, Dodge and Spears published a manual for determining Socio-economic status in New Zealand (Dixon, Dodge and Spears 1976). The had developed a housing index that divided houses into five groups.

Type A Large mansion dwellings.

Type B Substantial family homes in good repair or modern luxury flats. In general type B homes will be large, well constructed and in good repair.

Type C Small houses well constructed and in good repair. State houses and small modern flats would be grouped in this section.

Type D Small houses, old and in generally poor repair. Pensioner housing regardless of its physical condition is included in this group.

Type E Small houses in very poor repair.

The housing index was intended for use by doctors and other medical workers who visit patients in their own homes. The doctors would make an assessment of the type of house during their visit. The system has the advantage of being very easy to apply. However the index was only used in a couple of studies and has not been used recently. The housing index has been criticised for needing frequent revision and only being useful in the Dunedin area where it was developed.

4. THE SOCIAL CLASS VERSUS INCOME DEBATE IN THE USA

In the late 1950s Martineau (1958) pointed out the connections between the social classes in the United States of America and their spending behaviour. Martineau after analysing a number of empirical studies stated that "the kinds of things a person will or will not buy are strongly related to his class membership, and that the individual's store loyalties and his spend/save aspirations will in considerable part be class related". The paper by Martineau, and others by Coleman (1960) and Levy (1966), presented evidence which strongly supported social class as a discriminatory variable.

From the early 1960s, social class was widely thought to be superior to income as a discriminatory variable for consumer behaviour. The empirical studies put forward to support the assertion did not use a direct comparison between social class and income for prediction of consumption from a common database. The research involved the evaluation of say social class for consumer durables, then a study would be conducted that would evaluate income for magazine readership, speculation would then made on which system was superior.

Rich and Jain (1968) concluded that the ability of social class to discriminate shopping behaviour was diminishing in the late 1960s.

They suggested that the changing discriminatory power of social class was due to increases in discretionary income, leisure time, opportunities for higher education, social benefits, and movements to "suburbia".

During the late 1960s and early 1970s, numerous studies, the most important of which are described below, were conducted to show the "real" power of social class or income. The studies were conducted on specific product groups or aimed to test whether social class or income was the better discriminator of purchasing information. Often the studies contradicted earlier studies.

Wasson (1969) conducted a study aimed at evaluating the effectiveness of social class versus income in discriminating family spending. His study involved the allocation of family spending on food, housing, and education for both social class and income. Wasson concluded that social class (occupational status) was superior to income. He however hedged his bet by suggesting that the results "...demonstrate the need to look at our marketing studies in terms of occupation first, and then at income level."

The debate then took an obscure course with studies on specific products such as credit card usage. An article on credit card usage was published by Mathews and Slocum (1969) and suggested that social class is an important variable in regard to its effect on credit card

usage. They did not have income information on their initial study, but a follow up study (1970) did include income and a comparison was made between income and social class as discriminatory variables. They updated the original database and found income also to be a useful segmentation variable. They concluded that neither segmentation variable was superior to the other and that the assumed superiority of social class should be investigated further.

Myers, Stanton and Haug (1971) compared social class and income as correlates of buying behaviour for a variety of low cost consumer goods. The aim of their study was to determine whether social class or income better explains which products are found in the home. They found that "income was superior to social class in segmenting the market for a wide variety of consumer purchases: durable, semi-durable,and non durable goods plus selected services." These studies did not investigate frequency of usage of the products or services.

A few years later Hirsch and Peters (1974) compared multiple correlation coefficients (R) on four variables (income, social class, age, life cycle) over a number of entertainment activities (measured by frequency of use). They found all the variables they tested would assist in predicting usage of the entertainment activities in their study. They reported strong associations between the independent and dependent variables, with adjusted R^2 values of between .40 and .56 .

The four demographic variables in their study were tested for their ability to discriminate for the use and non use of the entertainment activities. They found the multiple correlation coefficients were considerably lower in this case than they were when frequency of usage of the entertainment activity was used as the dependent variable. This however is a very obvious point.

Hirsch and Peters also found that social class yielded higher correlations than income with frequency of usage, while the opposite was true for the usage - non usage dichotomy.

Schaninger (1981) tried to identify the product groups for which social class or income was superior at predicting consumption. He examined the frequency or volume of consumption of a variety of consumer products and media items. Overall, for food and conveinience items, social class was superior. For beverage consumption, social class also appeared to be superior to income although less strongly. Social class was also superior to income for shopping behaviour and television viewing and newspaper readership. He found income was superior for domestic appliances with the exception of refrigerators. It is interesting to note that his findings for food, soft drink and non-alcoholic beverage grocery items contradicted those of Myers, Stanton and Haugs' (1971) that income was superior to social class in segmenting grocery items.

Typically, the amount of variation in quantities purchased that has been explained by socio-economic classification systems has been very low. Included in Appendix 10 is a table showing R^2 values that were obtained in a study of the purchase of grocery products (Frank, Massy and Boyd 1967).

5. THE SOCIAL GRADE DEBATE IN THE UNITED KINGDOM

The social grade system has been used to classify informants on the National Readership Survey since 1950 and is the most widely used classification system in the United Kingdom. The social grade system has come in for a lot of discussion with many suggestions on improvements or alternatives being offered (Bermingham et al 1979, Cornish 1981, Monk 1974, Tywman 1981). Monk (1974) summarised the critics of the system as:

1 Substitutionists: those suggesting a different method of classification, for example income

2 Multi dimensionalists: those wishing to employ more than one dimension, for example a weighted combination of income, education and occupation.

Monk points out that neither set of critics is necessarily wrong, given their individual needs and that there is no good general purpose alternative. Monk cites a number of problems that face those who put forward alternatives:

1 From a methodological standpoint it is difficult to collect information accurately.

2 The multidimensional approach can lead to complicated weighting.

3 The subsequent weighted multidimensional system is very good at

predicting consumption for some product groups while for other product groups it may be poor.

During the late 1970s and early 1980s the critics of the social grade system (Bermingham et al 1979, Cornish 1981, Hulks 1980) started suggesting that a reform of the system was needed. The following criticisms had been made. The social grade system is based on occupation and this may not have a strong relationship with income, spending power or consumption behaviour. The social grade system implies a hierarchy and changes in occupational incomes may have disrupted this hierarchy and there may be little basis for making reliable inferences about spending power or lifestyles. A further argument is that the life cycle stage of the households is not being taken into account. Thus the influences on disposable income such as mortgages debt, number of income earners and dependants in the household are not included.

A working party of the Market Research Society in the United Kingdom took careful note of these objections and spent considerable time testing the validity of the Social Grade system (Market Research Society 1981). The working party adopted the following criteria in their evaluation of social grade:

1 It should provide meaningful discrimination across a wide range of product areas with respect to at least one of three basic parameters: product field and media usage; weight of usage; and brand (or equivalent) usage

2 It should be capable of simple, consistent application across different data sources and collection methods, and should be stable

3 There should be no other measure or measures capable of collecting with the same facility which provide stronger but similar discriminatory ability

4 Both users and suppliers of data should have confidence in the measure they are using.

Social grade was compared with the following variables in the evaluation; household size, age, income, tenure, presence of children, terminal education age, marital status. A discussion of the assessment of the discriminatory ability of these variables is included in chapter 6. After analysis of the various classifications on a wide variety of consumer products the working party reached the following conclusions:

1 Analysis of data covering product field penetration, weight of use and brand use shows that, overall, social grade provides satisfactory discriminatory power.

2 None of the alternative standard classification variables examined was found to provide consistently better discriminatory power.

3 No one classification variable works "best" across all product fields or data types. Users must approach each problem on its merits and find that set of classification variables which is most relevant. If properly used, the current measure is acceptable.

4 No evidence was found to show a decline in the discriminatory power of social grade over the last ten years.

5 There is a need for guidelines to be introduced to ensure a greater degree of consistency, across different research suppliers, in sample profile by social grade.

6 There may be an "ideal" variable which would provide significantly better discriminatory power than social grade and which would better reflect its underlying constructs. It is possible that, if found, it would be tractable and suit all user needs. However, the Working Party considered that the likely benefit derived would be out of proportion to the substantial expenditure required to investigate this point.

This chapter has described the findings of evaluations of socio-economic classification systems in both the United Kingdom and the United States of America. The next section describes the methods used in evaluating socio-economic classification systems.

6 METHODS OF EVALUATION

A wide variety of methods have been used to evaluate the discriminatory power of classification systems. In the late 1950s evaluation of systems was haphazard and involved looking for different patterns in crosstabulations of spending versus social class or income. An example of this technique is provided by Martineau (1958), where no quantitative measure of association was used.

Generally, evaluation techniques can be grouped into the following two categories: significance tests or usefulness tests. Chi square analysis has been used in a number of studies (Rich and Jain 1968, Mathews and Slocum 1969, Myers and Mount 1973, Myers, Stanton and Haug 1971). However, many authors seem to overlook the point that chi square tests and indeed all significance tests are largely influenced by sample size. The significance tests do not explain how useful the system is, but indicate how likely it is that the results obtained may have occurred by chance (Martille and Carvey 1975, Sawyer and Peter 1983).

When the dependent variable is metric it is common practice to use analysis of variance or regression procedures. During the late 1960s the R^2s obtained from regression analysis became popular for testing

the usefulness of classification systems (Frank, Massy and Boyd 1967,

Bass, Tigert and Lonsdale 1968). Schaninger (1981) used analysis of

variance to test the usefulness of the systems.

The working party of the Market Research Society (1981) in the U.K used

four methods to evaluate classifications. The methods used were:

1 The maximum difference in pene tration (in percentage points) that
exist between any two social grade definitions.

2 The difference in penetration (in percentage points) that exists
between the AB and D groups.

3 The difference in penetration (in percentage points) that exists
between the AB and E groups.

4 An index of discrimination calculated as follows: if $p\%$ and $q\%$
are penetrations in any pair of adjacent social grade groupings,
and p larger of the two, calculate $1-(q/p)$ for each pair and
average across all pairs.

These four techniques were used to evaluate the validity of social

grade as a variable for marketing analysis. Method one was used for

all variables, while the other methods were used when they could be

adapted for use on the other specific demographic variables.

Unfortunately significance tests can not be conducted on the results

from these tests as the necessary statistical theory has not been

developed. This however, does not mean that they are not capable of

performing the tasks required in that study.

The tests of usefulness used in the present study were: R^2, R^2 adjusted, Lambda, percent of cases correctly classified. The purchasing information was either metric or nominal level data. R^2 was chosen to measure the amount of variation in the metric level purchasing information that was explained by the various classification systems. R^2 was adjusted for the sample size and the number of independent variables in the classification system (Theil 1971).

It was a little more difficult to choose a measure of the amount of variation explained by the various classification systems for the nominal level dependent variables. The Goodman and Kruskal Lambda, which is a measure of proportitional reduction in error (PRE) was used. Lambda has similar logic to R^2 but no adjustment for sample size or number of independent variables is available as is the case with R^2 (Reynolds 1977, Liebetrau 1983). Since Lambda is similar to R^2, it is likely the adjustment that would used for Lambda would be similar to that used on R^2. The large sample size used in this study resulted in very small adjustments being necessary for R^2.

Discriminant analysis was performed on the data. The discriminant functions obtained from the analysis were used to predict original purchasing information. The percent of cases correctly predicted was then used as a measure of the effectiveness of the classification system. As was the case with Lambda, no adjustment for sample size or number of independent variables was available (Morrison 1974). A further problem with this measure is the upward bias caused by getting

the best fit for the particular set of data used (Morrison 1974). See

Appendix 1 for de tails on these measures.

7. SYSTEMS STUDIED

All systems in use in New Zealand were tested. In addition, since the Sagacity system showed promise in the United Kingdom as predictor of purchasing behaviour it was decided to evaluate it on New Zealand data in this study. The other systems evaluated in this study were chosen because they are commonly used in predicting purchasing behaviour in New Zealand. The following systems were evaluated in this study:

Sagacity

McNair occupation groups

Elley-Irving indices

Social grade

NZ interlaced demographics

NZSCO

Income

Age

Education.

SAGACITY

The general philosophy of the Sagacity system as outlined in Chapter 3 was followed in the construction of the Sagacity system. Households in the Sagacity as used in the UK are divided into better off and worse off categories depending upon the income of the chief income earner and the working status of the spouse of the main income earner. In the UK, the National Readership survey collects only chief wage earners income, therefore the working status of the chief wage earner's spouse is used to adjust the income value. The data set used in this study has information on the income of the respondent and the total household income. Since household income was available it was not necessary to adjust for working status of spouse. The better off and worse off division in this study was determined by the total household income. Three separate divisions were tested over all products in the study to determine the best division. The following income divisions were tested:

SYSTEM	BETTER OFF
Sagacity:1	>$20,000
Sagacity:2	>$30,000
Sagacity:3	>$40,000

A SPSS[x] program to create the various Sagacity categories is included in Appendix 3.

MCNAIR OCCUPATION GROUPS

The occupations of the respondents and the main income earners in the household were categorised into the following groups;

    Home duties
    Retired or superannuitant
    Social welfare beneficiary or unemployed
    Student
    Clerical or sales employee
    Semi-skilled worker
    Technical or skilled worker
    Business proprietor or self employed
    Business manager or executive
    Teaching or nursing or police or other trained service worker
    Professional or senior government official
    Labourer, manual, agricultural or domestic worker
    Farm owner or manager

ELLEY-IRVING

The standard six E-I groups for the occupation of the chief wage earner were tested over all products.

SOCIAL GRADE

The Social grade system used in this study categorised respondents or main income earners using the following five groups;

Professional
White collar worker
Skilled worker
Semi-skilled worker
Un-skilled worker

The Social Grade system was tested for both respondents and the main income earners in the households. A third Social Grade system was also tested, in which those reporting the main income earner as retired had the retired persons' previous occupation recorded and coded. A description of typical occupations and their respective social grades is included in Appendix 9.

NZSCO

The standard one digit NZSCO system was tested for both respondents and main income earners.

NZ INTERLACED DEMOGRAPHICS

The interlaced demographics system is a classification of households. Two versions of this system were evaluated, one comprising six groups and the other three groups. See Appendix 7 for the SPSS^X program for the system.

DEMOGRAPHIC VARIABLES

The following demographic variables were tested:

    Age of respondent
    Education of respondent
    Income of respondent
    Income of household

The details of the demographic variables included in the analysis are

included in Appendix 1.

8. OVERALL PERFORMANCE

The various classification were very poor on average at predicting purchasing levels.   The best systems on average had adjusted R^2 values of about 2%, while the remaining systems had average adjusted R^2 values of about 1%. These averages have been dragged down a little, because the R^2 values were obtained from analysis where some systems would not normally have been used being included in the overall averages. The following table shows how the various systems performed for predicting consumption:

Classification system	Average Adjusted R^2 %
Sagacity:2	2.4
Sagacity:3	2.4
Sagacity:1	2.3
McNair occupation respondent	2.3
Age respondent	1.9
McNair occupation c.w.e	1.6
NZSCO c.w.e	1.3
Elley-Irving c.w.e:	1.2
NZ interlaced demographics:6	1.1
NZSCO respondent	1.1
Social grade respondent	1.0
Education respondent	0.9
Income respondent	0.9
Social grade c.w.e:1	0.8
NZ interlaced demographics:3	0.8
Social grade c.w.e:2	0.7
Income of household	0.6

The following tables shows how well the various systems performed for predicting brand choice:

	AVERAGE LAMBDA VALUES %	AVERAGE CORRECTLY CLASSIFIED %
Sagacity:1	11.3	35.6
Sagacity:3	11.3	36.3
Sagacity:2	11.2	36.5
Age respondent	11.0	38.7
McNair occupation cwe	10.3	35.5
McNair occupation respondent	9.8	36.8
NZSCO cwe	8.7	33.0
Elley-Irving cwe	7.7	29.4
Social grade cwe:1	7.5	26.0
Social grade cwe:2	6.4	28.8
NZSCO respondent	6.0	29.8
Social grade respondent	5.7	29.1
Income respondent	5.3	28.3
Income household	4.4	24.1
NZ interlaced demographics:6	4.3	24.5
Education respondent	3.9	25.5
NZ interlaced demographics:3	2.8	18.6

PRODUCT GROUP RESULTS

Some product groups had better results than indicated by the overall average adjusted R^2 values reported above. The following table shows the range of adjusted R^2 values for the various product groups.

PRODUCT GROUP	ADJUSTED R^2 FOR WORST SYSTEM %	ADJUSTED R^2 FOR BEST SYSTEM %
Alcoholic beverages	0.0	1.5
Non alcoholic beverages	0.0	3.2
Interests and activities	0.0	4.0
Sports activities	0.0	3.9
Magazine readership	1.1	2.6
Personal cleansers	1.0	1.2
Smoking	0.0	2.6
Snacks and lollies	0.0	4.3
Light food and spreads	0.0	2.4
Television ownership	0.0	3.0
Garden equipment	0.0	1.7
Household appliances	0.0	1.0
Home alterations	0.0	1.0
Interior decorating	0.0	1.3

Overall, the Sagacity systems were best both at predicting consumption and brand choice. There was little difference between the predictive ability of the three versions of Sagacity. The two McNair systems and the age of respondent were almost as good as the Sagacity systems at prediction. Generally those systems that had better performance at predicting consumption were also better at predicting brand choice. Some systems were reasonably good at predicting purchasing behaviour for deodorants and other personal products. Traditional measures such as education and income were not very good at prediction.

It must be remembered that the major aim of this study was to evaluate the ability of the various systems at predicting consumption or brand choice. Therefore the overall performances of the various systems will not be dwelled on. The average R^2 values, average Lambdas and average percent of cases correctly classified are to be used as a common sense measure of the overall predictive power of the various systems.

9. THE PERFORMANCE OF THE SYSTEMS ON FAST MOVING CONSUMER GOODS

This chapter describes the overall ability of the various systems to predict consumption and brand choice of alcoholic drinks, other beverages, spreads, snacks, and personal products. Classification systems that perform particularly well for specific products within these products groups are also discussed.

9.1 ALCOHOLIC DRINKS

Consumption

None of the systems predicted consumption of alcoholic drinks very well. Even the best system, Sagacity:3, had an average R^2 value of about 1.5%. Consumption of red wine was well predicted; the Sagacity systems had R^2s of 8% or 9%, while the remaining systems had R^2s between 0% and 2%.

Brand choice

The overall performance of all systems was rather poor for alcoholic brands. The highest average lambda value of 23.6% was recorded by

McNair CWE. Other prominent systems for brand choice were the three Sagacity systems. The remaining systems had average Lambda values of between 9.1% and 19.9%. The following systems managed to predict about 45% of brand choices correctly; Sagacity:1, Sagacity:2, Sagacity:3, McNair Respondent, McNair CWE, and Respondent Age. The remaining systems averaged between 22% and 41% of brand choices being correctly predicted. The following table summarizes the prominent results found for alcoholic drinks.

SYSTEM	ADJUSTED R^2	LAMBDA	CORRECTLY CLASSIFIED
	%	%	%
Sagacity:1	-	22.1	45.9
Sagacity:2	-	21.4	47.5
Sagacity:3	1.5	22.4	46.2
McNair CWE	-	23.6	46.8
McNair Respondent	-	20.3	45.6
Age Respondent	-	18.6	45.1

(-) = less than 1.5

9.2 OTHER BEVERAGES

Consumption

For non-alcoholic beverages the overall performance of the systems was slightly better than that found with alcoholic drinks. The following systems had average adjusted R^2 values of about 3%: Sagacity:1, Sagacity:2, Sagacity:3, McNair Respondent and Age of Respondent. The

remaining systems had average adjusted R^2 values of about 1%, with the exception of Respondent Income which had an average adjusted R^2 value close to 0.

For consumption of tea and coffee the three versions of the Sagacity system and the two versions of the McNair system and Respondent Age had adjusted R^2 values between 6% and 8%. The three versions of Sagacity had adjusted R^2 values of about 9% on consumption of orange juice.

Brand Choice

The performance of all systems for prediction of brand choice was worse than for prediction of alcohol brand. The better predictors of brand choice were; Age of Respondent with an average Lambda value of 9.1%, Sagacity:1 with an average Lambda value of 7.7%, and Sagacity:3 with an average Lambda value of 6.7%. The remaining systems had average Lambda values between 1.6% and 6.2% .

From the discriminant analysis the better systems (Sagacity:2, Sagacity:3, McNair Respondent, Age of Respondent) only managed to predict about 30% of brand choices correctly. The remaining systems averaged between 11% and 27% of brand choices being correctly classified.

The following table summarizes the prominent results found for other beverages.

SYSTEMS	ADJUSTED R^2 %	LAMBDA %	CORRECTLY CLASSIFIED %
Sagacity:1	3.2	7.7	26.3
Sagacity:2	3.1	7.5	28.6
Sagacity:3	3.1	6.7	28.3
McNair Respondent	2.5	6.2	28.7
Age Respondent	3.0	9.1	30.8

9.3 SPREADS

Consumption

Overall, the performance of all systems was very poor for spreads. All systems had averaged adjusted R^2 values of less than 3%. There were however a few brighter points for some systems. Age of respondent had an adjusted R^2 value of about 9% on consumption of marmalade. The Sagacity systems had adjusted R^2 values of about 7% for marmalade, with Sagacity:3 recording about an 9% adjusted R^2 on consumption of pate.

9.4 SNACKS

Consumption

The three Sagacity systems and Respondent Age had average adjusted R^2 values of about 4% for spreads, with the remaining systems having average adjusted R^2 values between 0% and 3%. The highest adjusted R^2 value in this category of about 14% was recorded by Age of Respondent and was for consumption of chewing gum. Age of Respondent also performed reasonably well on the consumption of potato chips where an adjusted R^2 value of about 10% was recorded. The three versions of Sagacity performed almost as well as age, for the prediction of chewing

gum and potato chips consumption. The following table summarizes the prominent results found for snacks.

SYSTEMS	LAMBDA %	CORRECTLY CLASSIFIED %
Sagacity:1	6.6	21.4
Sagacity:2	6.0	19.6
Sagacity:3	5.8	20.0
McNair Respondent	6.8	18.8
McNair CWE	6.0	23.4

9.5 PERSONAL PRODUCTS

Consumption

Some systems showed promise in predicting use of personal products. Age of respondent recorded an adjusted R^2 value of 19% for use of shampoo, while the three Sagacity systems recorded adjusted R^2 values of about 15% for use of shampoo. Age of respondent also performed well for use of deodorant, recording an adjusted R^2 of 17%.

Brand Choice

All systems performed rather poorly for personal products. The better performing systems were the three Sagacity and two McNair systems, with average lambda values of about 7%. The average Lambda values for the remaining systems ranged between 1.2% and 5.5%.

In the discriminant analysis all the systems were poor at predicting brand choice of personal products. The system with the best predictive ability was Age of respondent, but this system only managed to predict 23% of brand choices correctly. The remaining systems averaged between 11% and 21% of brand choices being correctly classified.

10.   THE PERFORMANCE OF THE SYSTEMS FOR SERVICES

10.1 ENTERTAINMENT ACTIVITIES

This chapter describes the overall ability of the various systems to predict consumption and brand choice of entertainment activities, sports activities, and travel.   Classification systems that perform particularly well for specific products within these product groups are also discussed.

Consumption

The three versions of Sagacity and Respondent Age had average adjusted R^2 values of about 4% for entertainment activities.   The McNair Respondent system had an average adjusted R^2 value of about 3%, with the remaining systems having average adjusted R^2 values between 0% and 1%.   The Sagacity:3 system achieved an adjusted R^2 value of about 10% for gardening,   while   other adjusted R^2 values for this activity were; Sagacity:2 and Sagacity:3 about 9%, McNair Respondent and Respondent Age about 8%.   For   interest   in   rock   concerts the adjusted R^2 for Respondent Age was about 16% while the Sagacity systems achieved about 14%.

The following table summarizes the prominent results found for entertainment activities.

SYSTEM	ADJUSTED R^2 %
Sagacity:1	3.8
Sagacity:2	3.8
Sagacity:3	3.7
Age Respondent	4.0
McNair Respondent	3.8

10.2 SPORTS ACTIVITIES

Consumption

The three Sagacity systems, McNair Respondent and Respondent Age had the best overall average adjusted R^2 values for sports activities of about 4%. The remaining systems had average adjusted R^2 values of between 0% and 2%. Respondent Age performed reasonably well, with adjusted R^2 values of about 11% for running and jogging, and about 9% for bowls. The Sagacity systems had adjusted R^2 values of about 10% for running and jogging and Sagacity:1 had an adjusted R^2 value of about 8% for bowls. The McNair Respondent system had adjusted R^2 values of about 9% for running and Jogging and about 7% for bowls. The following table summarizes the prominent results found for sports activities.

SYSTEM	ADJUSTED R^2 %
Sagacity:1	3.9
Sagacity:2	3.6
Sagacity:3	3.5
McNair Respondent	3.6
Age Respondent	4.3

10.3 TRAVEL

AIRLINE, DESTINATION AND CLASS OF TRAVEL

All systems were very poor at predicting Brand of airline, destination and class of travel. The highest Lambda value of 10% was recorded by Age of Respondent and was for future destination.

The discriminant analysis produced similar results, with all systems being very poor at predicting; brand of airline, destination and class of travel.

11. THE PERFORMANCE OF SYSTEMS ON DURABLES

11.1 DOMESTIC APPLIANCES

This chapter describes the overall ability of the various systems to predict consumption and brand choice of domestic appliances, garden equipment, household   renovations,   and   interior   decorating. Classification systems that perform particularly well for specific products within these product groups are also discussed.

Consumption

All systems predicted the purchase of domestic durables very poorly. The average adjusted R^2 values for all systems were between 0% and 1%. It is almost a necessity to have domestic durables in the household. With hire purchase arrangements it is possible to purchase a domestic durable for as little as $50 deposit. Domestic durables are likely to be purchased usually when the previous durable breaks down or is not available for use. It is likely that the purchase of domestic durables is a random event. therefore it is not surprising that the various classification systems accounted for very little variation in the purchasing behaviour. The original survey recorded which domestic appliances had been purchased in the past 2 years. If the survey had recorded how much had been spent on each domestic appliance in the past

2 years then it would be more likely that various systems would have been better at predicting the behaviour.

11.2 GARDEN EQUIPMENT

Consumption

All systems performed very poorly on the purchase of garden equipment. The highest individual adjusted R^2 of about 4% was achieved by Sagacity:3 for the purchase of chainsaws.

11.3 HOUSEHOLD RENOVATIONS

Consumption

All systems performed very poorly for household renovations. All systems predicted the purchase of specific products poorly. As was the case with purchase of consumer durables, performing household renovations is likely to be done when needed rather than be related to socio-economic characteristics. The original survey recorded which household renovations had been performed in the last 6 months. If the survey had recorded how much had been spent on each type of household

renovation in the last 6 months then it would be more likely that the
various systems would have been better at predicting the behaviour.

11.4 INTERIOR DECORATING

All systems performed very poorly for interior decorating. The highest
adjusted R^2 value was about 4% and was achieved by Sagacity:1 on the
purchase of curtains and drapes. The comments on prediction of
household renovations are also applicable for the prediction of
interior decorating.

12.   THE PERFORMANCE OF THE SYSTEMS ON OTHER BEHAVIOUR

This chapter describes the overall ability of the various systems to predict consumption and brand choice of magazines. The ability of the systems at predicting political party support is also discussed. Classification systems that perform particularly well for specific products within these product groups are also discussed.

12.1 MAGAZINE READERSHIP

Two measures of magazine readership were used   in   this   study. Respondents were asked to indicate how many copies of the magazine they read in an average month and whether they had read a copy of the magazine in the last seven days.

Monthly Readership

Overall the performance of the systems were poor, with Sagacity:3 and McNair Respondent having having the highest average adjusted R^2 values of about 3%. There were however some better performances by certain systems on specific magazines.   McNair CWE achieved an adjusted R^2 value of about 18% for The NZ Farmer and about 9% for Insight. Sagacity:3 recorded adjusted R^2s of about 6% for Signature and about 7%

for NBR.

Copies Read in last 7 days

Overall the results for readership in the last seven days were very similar to those found in readership in an average month, with all systems performing rather poorly. Individual highlights were once again achieved by Sagacity:3 and McNair cwe. Sagacity:3 obtained an adjusted R^2 value of about 15% for NBR, about 6% for Rip It Up, with McNair CWE achieving about 5% for NBR and about 15% for The NZ Farmer and about 6% for Insight.

12.2 POLITICS

The various systems were also poor at predicting which political party the respondent would vote for. The highest average Lambda value of 12% was recorded by NZCSO CWE, with the three Sagacity and two McNair systems being close behind with with average lambda values between 10.5% and 11%.

From the discriminant analysis the McNair Respondent systems managed to

predict 46% of respondents' votes correctly. The following systems averaged about 40% of votes being correctly predicted; Sagacity 1,2,3, McNair Respondent, McNair CWE, Age of respondent and NZSCO CWE. The remaining systems averaged between 24% and 33% of votes being correctly predicted.

13. IMPROVING THE STANDARD SYSTEMS

It is general research practice to incorporate additional demographic variables into a classification system when attempting to predict the purchase levels of specific products. To show the effect of this practice, the sex of the respondent was included as an additional explanatory variable for all systems on readership, frequency of use or consumption of:

    N.Z. Womens Weekly
    N.Z. Listener
    Rugby News
    National Business Review
    yoghurt
    cups of tea
    cups of coffee
    N.Z. beer
    red table wine
    hair conditioner
    deodorant

The following table shows the average adjusted R^2 values before and after the sex of the respondent was included in the analysis.

SYSTEM	Adjusted R^2 Before	Adjusted R^2 After
	%	%
McNair Occupation CWE	5.2	6.9
Age Respondent	4.2	7.3
Sagacity:1	3.8	7.2
Sagacity:2	3.8	7.1
Sagacity:3	3.8	7.0
Education Respondent	2.4	5.6
McNair Occupation Resp.	2.2	5.6
NZSCO Respondent	1.9	5.5
Elley-Irving CWE	1.8	5.5
NZSCO CWE	1.7	5.3
NZ Interlaced Demographic:6	1.6	5.3
Social Garde Respondent	1.5	5.5
Income Respondent	1.3	4.6
Social Grade CWE:1	1.1	4.8
Social Grade CWE:2	1.1	4.5
NZ Interlaced Demographic:3	1.0	4.7
Household Income	0.7	4.5

This table shows that the adjusted R^2 values increased by about 4% with the addition of the sex of the respondent as an explanatory variable for each of the classification systems.

14. VALIDATION OF RESULTS

The initial sample of 1596 respondents was divided into two equal groups. One half of the sample was used to evaluate the various systems while the other half of the sample was used to validate those results. A number of specific products were chosen for the validation exercise. The R^2 values obtained from the analysis from the first sample were compared with the R^2 values from the second sample. The following table shows typical R^2 values for the two samples for a variety of products.

PRODUCT	SAMPLE A R^2	SAMPLE B R^2
National Business Review	.058	.060
Metro	.043	.047
Insight	.048	.047
NZ Listener	.055	.045
Marmalade	.086	.086
Peanut butter	.030	.040
Stick icecream or block	.111	.128
Tomato sauce	.046	.054
Muesli	.028	.027
Fencing	.035	.032
Clothes dryer	.033	.025
Electric stove	.031	.028

The above table provides evidence to support the results found in this study. There is little doubt that in most cases the classification systems account for very little of the variation in purchasing levels

or brand choices of consumer goods and services. It must be remembered that the R^2s, Lambdas and other measures are only estimates of the population values at a given time. However, form a practical perspective they are more than satisfactory.

APPENDIX 1

RESEARCH METHOD

RESEARCH METHOD

The sample was obtained from personal interviews with a representative sample of 1596 people aged 10 years and over located throughout New Zealand. The survey was conducted by AGB:McNair (NZ) limited. All interviews were conducted on weekends or weekday evenings, or by appointment. In this way the sample included working men and women, students, housewives and retired people. The interviews were conducted between January and March 1984. All respondents in the survey were interviewed personally by trained interviewers, working under the supervision of senior Field Supervisors. A formal questionnaire was used.

Sets of cards were shown to respondents during the course of each interview. Besides assisting repondents to give considered replies, these cards also served to maintain repondents' interest and co-operation.

Call-backs were made on 20% of all respondents. These included personal, postal and telephone call-backs. The purpose of the call-backs was not only to verify the information supplied, but also, were necessary, to pick up any additional information which the respondents may not have recalled at the time of the original

interview.

A probability sample was used with clusters of households being interviewed. The selection procedure in all areas used Department of Statistics Area Unit data as defined for the 1981 Census. The sampling fractions in all statistical areas of New Zealand were in proportion to population. The sampling procedure ensured that the sampling areas were widely spread and thoroughly representative of both urban and rural areas throughout New Zealand. Within each selected Area, a small cluster of consecutive households was called upon, beginning from a randomly chosen starting point. The interviewers followed strict systematic selection procedures.

Equal numbers of effective interviews with males and females were obtained in each sample locality. One person only was interviewed in each household. This person was chosen using a "birthday falls next" procedure. Up to seven calls were made to interview the person (as described) before substitution.

ANALYSIS OF INFORMATION

REGRESSION ANALYSIS

Multiple linear regression was used to provide estimates of R^2 and Adjusted R^2. The classification systems were treated as dummy variables. The SPSS[x] statistical package was used.

The following adjusted R^2 formula was used in the analysis.

$$\text{adjusted } R^2 = 1 - \frac{\text{RESIDUAL SUM OF SQUARES}/(N-p-1)}{\text{TOTAL SUM OF SQUARES}/(N-1)}$$

Where p is the number of independent variables in the equation and N is the sample size.

PROPORTIONAL REDUCTION IN ERROR (PRE)

The proportional reduction in error measurements are alternatives to chi square based measures. The proportional reduction in error measures are essentially ratios of a measure of error in predicting the values one variable based on knowledge of that variable alone and the same measure of error applied to predictions based on knowledge of an additional variable. The PRE measure used in this study was Goodman and Kruskal's Lambda

$$Lambda = \frac{P(1) - P(2)}{P(1)}$$

Where P(1) is the outcome variable with the highest proportions of observations

P(2) is the sum of the probabilities of all the cells that are not row modes.

The values for Lambda always range between 0 and 1. A value of 0 means the independent variable is of no help in predicting the dependent variable. A value of 1 means that the independent variable perfectly specifies the categories of the dependent variable. It must be stressed that Lambda reflects the reduction in error when values of one variable are used to predict values of the other, therefore if this

particular type of association is absent the Lambda is 0. Other measures of association may find association of a different kind even if Lambda is 0.

CLASSIFICATION OF CASES

Discriminant analysis was performed on the data using the $SPSS^x$ statistical package. The adequacy of the derived discriminant functions obtained from the discriminant analysis using the various systems was measured. By classifying the cases used to derive the functions in the first place and comparing predicted brand choice with actual brand choice, one can empirically measure the success in discrimination by observing the proportion of correct classifications.

DEMOGRAPHIC VARIABLES USED IN THIS STUDY

EDUCATION

Primary school
High school for up to 3 years
High school for 4 years or more
Some university or other tertiary
University degree or other tertiary qualification

PERSONAL INCOME

Less than $5,000
$5,000-$9,999
$10,000-$14,999
$15,000-$19,999
$20,000-$24,999
$25,000-$29,999
$30,000 and over

HOUSEHOLD INCOME

Less than $10,000
$10,000-$19,999
$20,000-$29,999
$30,000-$39,999
$40,000 and over

AGE

10 years
11 years
12 years
13 years
14 years
15 years
16 years
17 years
18 years
19 years
20-24 years
25-29 years
30-34 years
35-39 years
40-44 years
45-49 years
50-54 years
55-59 years
60-64 years
65 years and above

APPENDIX 2

SOCIAL GRADE

Extract from Interviewers' Guide on Social Grading

for the National Readership Survey.

Guide to grade "A" households upper middle class

Informants from grade "A" households constitute about 2% of the total.

The head of the household is a successful business or professional man,

senior civil servant, or has considerable private means. A young man

in some of these occupations who has not fully established himself may

still be found in grade B though he eventually should reach Grade "A".

Guide to grade "B" households middle class

Grade "B" informants account for about 10% of the total. In general,

the heads of "B" Grade households will be quite senior people but not

the very top of their profession or business. They are quite well-off,

but their style of life is generally respectable rather than rich or

luxurious. Non-earners will be living on private pensions or on fairly

modest private means.

Guide to grade "C1" households the lower middle class

Grade C1 constitutes about 24% of total informants. In general it is made up of families of small tradespeople and non-manual workers who carry out less important adninistrative, supervisory and clerical jobs, i.e. what one sometimes called "white-collar workers".

Guide to grade "C2" households the skilled working class

Grade C2 consists in the main of skilled manual workers and their families. It constitutes about 32% of informants. When in doubt whether the head of household is skilled or unskilled, check whether he has served an apprenticeship; this may be a guide, though not all skilled workers have served an apprenticeship.

Guide to grade "D" households the semi-skill d and unskilled working class

Grade D consists entirely of manual workers, generally semi-skilled or unskilled. This grade accounts for 22% of families.

Guide to grade "E" households those at lowest levels of subsistence

Grade E consists of old age pensioners, widows and their families, casual workers and those who, through sickness or unemployment, are dependent on social security schemes, or have very small private means. They constitute about 9% of all informants.

1 The social grading of informants is carried out at two stages—by the interviewer at the time of the interview, and by Head Office staff when the questionnaires are returned for editing and coding. At each stage the coding is carried out on the basis of occupational information. Only if the occupational information is refused or is incomplete are other factors taken into account.

2 The occupational coding is based on written guides, files kept of decisions taken regarding unusual occupations, and general training. Attempts have been made to have a completely objective system—i.e. a master code book consisting of every possible occupation—but such systems have not found approval. The most recent attempt was that conducted under IPA auspices in 1962 on 8,000 informants.

3 At the interviewer stage the classification is based on guides to grading given in the interviewers' standard manual. It is on the basis of this manual that interviewers are initially trained. Subsequent education is a continuing process, due to exchanges of information between Head Office coders and individual interviewers when there is a discrepancy between the allocation of individuals. The actual document for the interviewers is reasonably comprehensive and runs to over 30 pages. Certain relevant extracts are reproduced on Pages 9 to 15 to provide the reader with an indication of the criteria on which the interviewer works.

4 On a study such as the National Readership Survey all questionnaires are checked for social grading by a small group of trained coders. This group of people have a slightly more detailed guide than the interviewers. They also have files and folders containing previous decisions that have been taken on specific occupations viewed as marginal cases. The Head Office coders are the final arbiters of the allocation of informants to a particular social grade.

5 Except in exceptional cases the grading of informants is based exclusively on occupation information. In the majority of cases the grading is based on the occupation of the head of household. The exceptions to this are:

— if the head of household is not in full time employment or is sick (for a period of more than two months), or is retired, widowed or a pensioner (with an income of less than £8 per week) then the occupation of the chief wage earner determines the status of the household and therefore informants living in it.

— lodgers, boarders and resident domestic servants are graded on the basis of their own occupation.

Definitions of Head of Household, Chief Wage Earner, etc. are given in Appendix C.

6 With so much emphasis placed on occupation it is clear that considerable detail of occupation is required. If an informant is the Head of Household one set of occupational detail is obtained. If an informant is not the Head of Household then details are obtained for the informant and the Head of Household. The occupational details obtained may be assessed by looking at the last page of the NRS questionnaire. Schematically, however, the details are as follows:
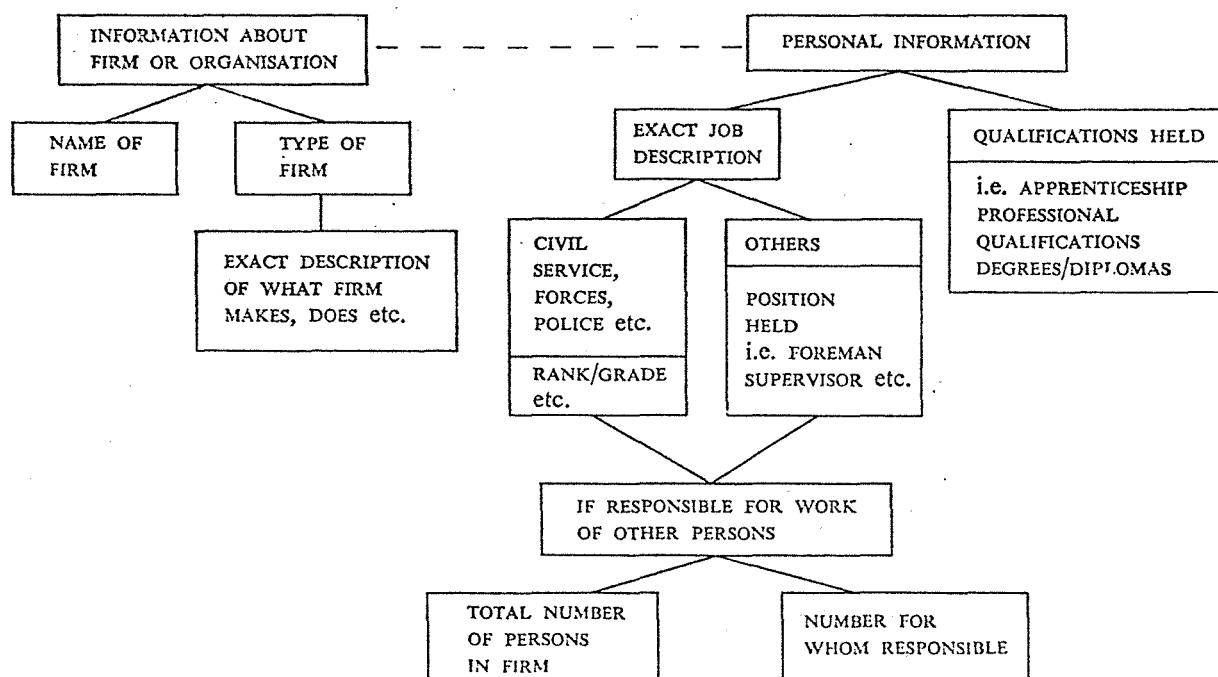
Only when this detail is incomplete, or some very special occupation is involved, is the other information collected and used to supplement the occupation details.

Source: Monk (1976)

7 It was stated above that irrespective of whether a person was the Head of Household or Chief Wage Earner, personal details of occupation were obtained. The reason for this is that in addition to allocating people to one of six social grades, informants are also classified in terms of Registrar General categories. There are two such classifications:

(i) classification of occupation.

(ii) classification of employment status.

The first is a three digit code classification, broadly comparable with the two digit level of International Classification of Occupations. It groups together persons who, on the basis of work done and the nature of the operation performed, are similar. The second classification ('employment status') basically divides the 'employee' from the 'self employed' and then further sub divides them as follows:

Employees (Self Employed)

(i) without employees

(ii) with employees (1–24)

(iii) with employees (25 or more).

Employees

(i) Managers of large establishments (25+).

(ii) Managers of small establishments (up to 24).

(iii) Foreman and Supervisors
    (*a*) Manual
    (*b*) Non-manual

(iv) Apprentices, articled pupils, trainees.

(v) Family workers.

(vi) Other workers.

Both sets of data are available on the card packs of the NRS and special analyses may be obtained through any licensed supplier of special analyses.

8 Because one set of data are based on Head of Household (Social Grade) and the other are based on individuals (Employment Status) a cross analysis of the two sets of classification would be expected to reveal some apparent anomolies (e.g. an A grade person classified as Foreman or Supervisor). However, the analysis shown on Page 16 shows very few such deviations.

APPENDIX 3

SAGACITY

Dependent		Pre-family		Family Stage				Late Stage			

Dependent
- Age 15-34 but not HoH/CWE or wife of HoH/CWE
- or single full-time student aged 15-34

Pre-family
Age 15-34 and HoH/CWE or wife of HoH/CWE

where household type is adults only; informant has no children 16-20, and is not a full-time student

Family Stage
Age 15-64 and HoH/CWE or wife of HoH/CWE

where household type is adults and children 0-15; or informant has children 16-20; and informant is not a full-time student

Late Stage
All those not classified under Dependent, Pre-family or Family Stage

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Better Off

ABC1 male
Income codes 8 or 9; and if HoH/CWE and married and wife is working f/t or p/t 8-29 hrs/w, code 7; and if HoH/CWE and married and wife is working f/t, code 6.

ABC1 female
Income codes 8 or 9; and if married and working f/t or p/t 8-29 hrs/w, code 7; and if married and working f/t, code 6.

C2DE male
Income codes 7, 8 or 9; and if HoH/CWE and married and wife is working f/t or p/t 8-29 hrs/w, code 6; or, if married and wife is working f/t, code 5.

C2DE female
Income codes 7, 8 or 9; and if married and working f/t or p/t 8-29 hrs/w, code 6; and if married and working f/t, code 5.

Worse Off

ABC1 male or female
Informants not classified under ABC1 male or female better off.

C2DE male or female
Informants not classified under C2DE male or female better off.

Better Off

HoH/CWE or wife of HoH/CWE
Age 65 +; or aged 35-64 and household type adults only and informant has no children 16-20

if ABC1 male: income codes 7, 8 or 9; and, if married and wife is working f/t or p/t 8-29 hrs/w, code 6; and if married and wife is working f/t, code 5.

if ABC1 female: income codes 7, 8 or 9; and if married and working f/t or p/t 8-29 hrs/w, code 6; and if married and working f/t, code 5.

if C2DE male: income codes 6, 7, 8 or 9; and, if married and wife is working f/t or p/t 8-29 hrs/w, code 5; and, if married and wife is working f/t, code 5.

if C2DE female: income codes 6, 7, 8 or 9; and, if married and working f/t or p/t 8-29 hrs/w, code, 5; and, if married and working f/t, code 4.

Not HoH/CWE or not wife of HoH/CWE
Age 35+

if ABC1: SGA; or B if working f/t or p/t 8-29 hrs/w; or C1 if working f/t

if C2DE: working f/t

Worse Off

HoH/CWE or wife of HoH/CWE
Age 65+; or aged 35-64 and household type adults only and informant has no children 16-20.

if ABC male or female: informants not classified under ABC1 male or female Better off.

if C2DE male or female: informants not classified under C2DE male or female Better off.

Not HoH/CWE or not wife of HoH/CWE
Age 35 +

if ABC1: SGB and not working f/t or p/t 8-29 hrs/w; or C1 and not working f/t.

if C2DE: not working f/t.

White Social Grade of HoH/CWE ABC1	Blue Social Grade of HoH/CWE C2DE	White Social Grade of HoH/CWE ABC1	Blue Social Grade of HoH/CWE C2DE	White Social Grade of HoH/CWE ABC1	Blue Social Grade of HoH/CWE C2DE	White Social Grade of HoH/CWE ABC1	Blue Social Grade of HoH/CWE C2DE	White Social Grade of HoH/CWE ABC1	Blue Social Grade of HoH/CWE C2DE	White Social Grade of HoH/CWE ABC1	Blue Social Grade of HoH/CWE C2DE
DW	DB	PFW	PFB	FW+	FB+	FW−	FB−	LW+	LB+	LW−	LB−

SPSS^x PROGRAM FOR CREATION OF SAGACITY SYSTEM

VALUE LABELS

STATUS

(1) MAIN INCOME EARNER

(2) SPOUSE OF MAIN INCOME EARNER

(3) OTHER HOUSEHOLD MEMBER/

INCOME

(1) LESS THAN $10,000

(2) $10,000-$19,999

(3) $20,000-$29,999

(4) $30,000-$39,999

(5) $40,000 AND OVER/

OCUPP

(1) HOME DUTIES

(2) RETIRED

(3) SOCIAL WELFARE BENEFICIARY UNEMPLOYED/

COLLAR

(1) WHITE

(2) BLUE/

AGE

(1) 10 YEARS		(11) 20-24 YEARS
(2) 11 YEARS		(12) 25-29 YEARS
(3) 12 YEARS		(13) 30-34 YEARS
(4) 13 YEARS		(14) 35-39 YEARS

(5) 14 YEARS   (15) 40-44 YEARS

(6) 15 YEARS   (16) 45-49 YEARS

(7) 16 YEARS   (17) 50-54 YEARS

(8) 17 YEARS   (18) 55-59 YEARS

(9) 18 YEARS   (19) 60-64 YEARS

(10) 19 YEARS   (20) 65+

COMMENT   THIS CREATES BETTER OFF AND WORSE OFF GROUPS BASED ON

          HOUSEHOLD INCOME

IF (INCOME GE 3) WEALTH=1

IF (INCOME LE 2) WEALTH=2

VALUE LABELS

WEALTH

   (1) BETTER OFF

   (2) WORSE OFF/

COMMENT   THIS ALLOCATES REPONDENTS TO FAMILY LIFECYCLE STAGES

IF (AGE GE 1 AND LE 13 AND STATUS EQ 3) OR (OCCUP EQ 4 AND AGE GE 1 AND
LE 13) FAMSTAGE=1

IF (AGE GE 1 AND LE 13 AND STATUS LE 2 AND DKIDS EQ 0) FAMSTAGE=2

IF (AGE GE 1 AND LE 19 AND STATUS LE 2 AND DKIDS GE 1 AND OCCUP NE 4)
 FAMSTAGE=3

IF (STATUS LE 2 AND AGE GE 20) OR (STATUS LE 2 AND AGEGE 14 AND LE 19
AND DKIDS EQ 0) OR (STATUS EQ 3 AND AGE GE 14) FAMSTAGE=4

COMMENT   THIS ALLOCATES RESPONDENTS TO THE 12 SAGACITY GROUPS

IF (FAMSTAGE EQ 1 AND COLLAR EQ 1) SAGACITY=1
IF (FAMSTAGE EQ 1 AND COLLAR EQ 2) SAGACITY=2
IF (FAMSTAGE EQ 2 AND COLLAR EQ 1) SAGACITY=3
IF (FAMSTAGE EQ 2 AND COLLAR EQ 2) SAGACITY=4
IF (FAMSTAGE EQ 3 AND COLLAR EQ 1 AND WEALTH EQ 1) SAGACITY=5
IF (FAMSTAGE EQ 3 AND COLLAR EQ 2 AND WEALTH EQ 1) SAGACITY=6
IF (FAMSTAGE EQ 3 AND COLLAR EQ 1 AND WEALTH EQ 2) SAGACITY=7
IF (FAMSTAGE EQ 3 AND COLLAR EQ 2 AND WEALTH EQ 2) SAGACITY=8
IF (FAMSTAGE EQ 4 AND COLLAR EQ 1 AND WEALTH EQ 1) SAGACITY=9
IF (FAMSTAGE EQ 4 AND COLLAR EQ 2 AND WEALTH EQ 1) SAGACITY=10
IF (FAMSTAGE EQ 4 AND COLLAR EQ 1 AND WEALTH EQ 2) SAGACITY=11
IF (FAMSTAGE EQ 4 AND COLLAR EQ 2 AND WEALTH EQ 2) SAGACITY= 12

APPENDIX 4

ACORN

The modified ACORN clusters

an extract from Bermingham, Baker and MacDonald (1979).

Cluster 1A

Areas of recent growth and settlement-the blue collar areas. These
include any new town such as Basildon or Harlow, and planned growth
areas on town fringes. They have a balanced economy and consumer
aspirations tend to be high.

Cluster 1B

Areas of recent growth and settlement-the white collar areas. These
are basically new housing areas built for the young professional
employee, and is usually his first mortgage. Consumer behaviour
resembles that of high status suburbia but as yet they are not at peak
earnings and the total volume of consumption resembles this.

Cluster 2A

Areas of reasonable quality Victorian/Edwardian terraced housing.
These are basically dominant in small market towns such as Taunton.
They are heavily owner occupied and have a high proportion of skilled
manual labour. Consumer behaviour reflects a home and family oriented
lifestyle.

Cluster 2B

Areas of very poor quality Victorian/Edwardian housing; invariably in
areas of economic decline such as Greater Manchester. The population
tends to be young and unskilled, and income levels are low.

Cluster 3

Rural areas with high proportions of workers in agriculture, prevalent
in East Anglia and the South West.

Cluster 4

Areas with huge proportions of urban council housing, normally in areas
of economic decline. Such areas are particularly widespread in the
North East and South Yorkshire. Unemployment is high as are the
proportiOns of unskilled workers. As would be expected, consumer
spending on many product fields is very low.

Cluster 5

Areas with the worst level of social deprivation in Great Britian with huge levels of both unemployment and unskilled labour. 95% of such areas occur in Strathclyde in Scotland, particularly in Glasgow. Consumer expenditure is very low on other than basics, with the exception of high expenditure on alcohol.

Cluster 6A

Areas of high immigrant population which occur in large cities such as London, Birmingham and Manchester.

Cluster 6B

Inner city high status areas such as Kensington and Hampstead in London. These areas are dominated by people living the "jet-set" life-style, where consumption on the leisure industry is colossal.

Cluster 7A

Suburban high status areas such as Esher and Coulsdon. The population
is professional, middle-aged and home and family oriented, and
expenditure is high on the house and garden.

Cluster 7B

Seaside and retirement resorts; such as Bexhill and Bournemouth. The
population consists mainly of white collar workers and retired people
(over 25% of the population is over 65). Consumption follows the
pattern of high status suburbia, without, of course, the same
propensity to renew or buy new consumer durables.

APPENDIX 5

Redmond and Davis scale

SOCIO-ECONOMIC CLASSIFICATION

Group I *Higher Professional and Administrative Work*

Analytical Chemist, Architect, Artist, Bank Manager, Company Secretary, Civil Engineer, Clergyman, Doctor, Dentist, Editor, Insurance Manager, Lawyer, Librarian, Professional or Administrative Officer of Public Service, Public Accountant, Stockbroker, Schoolteacher, Scientist, University Lecturer.

Group II *Lower Professional Technical and Executive Work*

Accountant, Broker, Buyer, Contractor, County or Town Clerk, Company Director, Chief Detective, Chiropractor, Dairy Instructor, Employer, Engineer (Structural, Electrical, Mining and Chief Marine), Health Inspector, Hotel Proprietor, Journalist, Manager, Masseur, Music Teacher, Merchant (large), Officer in Army, Navy or Merchant Marine, Optician, Photographer, Reporter, Secretary, Veterinary Surgeon, Surveyor.

Group III *Clerical and Highly Skilled*

Advertising, Auctioneer, Builder, Bank Clerk, Chemist, Commission Agent, Clerk in Public Service, Clerk, Commercial Traveller, Draughtsman, Detective, Electrician, Foreman, Garage Proprietor, Indent Agent, Inspector, Insurance Agent, Jeweller, Land Agent, Merchant (small), Marine Engineer, Mechanical Engineer, Native Agent, Printer, Police Sergeant, Postal Sorter, Postmaster, Restaurant Keeper, Stationmaster, Stock Agent, Telegraphist.

Group IV *Skilled Work*

Building Trades, 'Bus-driver, Blacksmith, Compositor, Contractor (small), Cook, Dealer, Fitter, Locomotive Engineer, Metal Trades, Motor Trades, Motorman, Motor Engineer, Printing Machinist, Plumber, Policeman, Piano Tuner, Shopkeeper, Shop Assistant, Salesman, Signwriter, Signalman, Shipwright, Tradesman (e.g. Tailor, Grocer, etc.), Trainer, Traffic Inspector, Ranger, Upholsterer, Wood Trades, Warehouseman, Wool Classer, Engineer (not specified).

Group V *Semi-skilled Repetitive Work*

Apiarist, Bushman, Butcher, Baker, Bricklayer, Barber, Bootmaker and Repairer, Barman, Coalminer, Chauffeur, Carrier, Dairy Factory Worker, Dairyman, Fireman (not marine), Faultman, Fire Brigadesman, Ganger, Gas Works Employee, Gardener, Green Keeper, Groom, Goldminer and Prospector, Jockey, Linesman, Lorrydriver, Lighthouse Keeper, Milkman, Ploughman, Paper Agent, Naval Rating, Polisher, Painter and Paperhanger, Postman, Packer, Railway Running Staff (not locomotive), Railway Porter, Stationary Engine Driver, Soldier (ranks), Saddler, Striker, Stevedore, Storeman, Sawmiller, Teamster, Tinsmith, Textile Worker, Tram Conductor, Taxi Driver, Tally Clerk, Tiler, Tanner, Tractor Driver, Timber Mill Worker, Tradesman's Labourer, Tunnel Work, Tramway Employee, Warder, Winchman, Wireman.

Group VI *Unskilled Repetitive Work*

Attendant, Bush Worker, Cleaner, Caretaker, Delivery Man, Domestic Servant (Hotel Porter, and Window Cleaner), Fisherman, Farm Labourer, Freezing Works Employee, Fireman (Marine), Factory Hand, Labourer, Liftman, Milker, Navvy, Quarryman, Rabbiter, Shepherd, Shearer, Surfaceman, Steward, Sharemilker, Seaman, Waterside Worker, Gum Digger.

Group VII *Farmer and Farm Manager, Orchardist*

Group VIII *Deceased*

Group IX *Unemployed*

Group X *Unspecified*

Group XI *Pensioner*

Source: Redmond and Davis 1940

APPENDIX 6

Congalton and Havighurst scale

Source: Congalton and Havighurst 1953

THE CONGALTON—HAVIGHURST SCALE: STATUS RATING OF OCCUPATIONS IN NEW ZEALAND

PROFESSIONALS		Original Rating	PROPRIETORS & MANAGERS		Original Rating	FARMERS		Original Rating	OFFICE & SALES WORKERS		Original Rating	SKILLED MANUAL WORKERS		Original Rating	SEMI-SKILLED WORKERS		Original Rating	UNSKILLED REPETITIVE WORKERS		Original Rating
Median			Median			Median			Median			Median			Median			Median		
1.56	Doctor	1	1.55	Owner Large Business, valued at £25,000 or over	1															
1.74	Solicitor	1	1.72	Director, LARGE financial or industrial enterprise	1															
2.27	Clergyman, with University degree	1	2.43	Owner, Business, valued at £10,000 to £25,000	2	2.10	Gentleman Farmer (well established, does not supervise directly the work on his property)	1	2.44	Departmental Head in Government Service	2									
2.29	Dentist	2	2.46	Manager, LARGE financial or industrial enterprise	1				2.62	Registered Public Accountant	2									
2.30	University Teacher	1	2.50	Company Manager, large business	2	2.62	Gentleman Farmer (reasonably well established, does not supervise work on his property)	2												
2.43	School Principal	1				2.64	Large Farm Owner (supervises work on own land, but seldom works actively on it)	3												
2.47	Engineer, professional	1				2.98	Sheep Farmer, well established	–												
2.53	Newspaper Editor	2																		
2.55	Clergyman, some University training, but not a degree	2																		
3.40	Secondary School Teacher	2	3.20	Owner, Business, valued at £5,000 to £10,000	3	3.52	Dairy Farmer, well established	4	3.57	Accountant, to a business	3									
3.43	Clergyman, no University training	3	3.31	Departmental Manager, large business	2	3.68	Farm Owner, actively operates own land, with help	4	3.77	Private Secretary, to Executive	4									
3.95	Trained Nurse	3	3.51	Departmental Manager, general	3				3.93	Postmaster	3									
			3.56	Works Manager, large business	2															
			3.62	Office Manager, general	3															
			3.63	Sales Manager, large business	2															
4.16	Social Worker	3	4.15	Owner, Business, valued at £1,000 to £5,000	4	4.12	Farm Manager, supervises property	5	4.13	Real Estate Agent	3	4.44	Watchmaker, own business	4						
4.29	Trained Librarian	3	4.65	Owner, Business, valued at less than £1,000	5	4.12	Farmer, owner, operates land with family	5	4.26	Land Agent	–	4.63	Jobbing Master Builder	3						
4.40	Primary School Teacher	3				4.86	Sharemilker, owns cattle or machinery	5	4.73	Insurance Agent	4	4.65	Carpenter, own business	4						
4.65	News Reporter	3				4.89	Farmer, tenant, operates land with family	5	4.95	Bank Clerk or Teller	4	4.65	Electrician, own business	4						
									4.95	Commercial Traveller	4	4.78	Plumber, own business	4						
												4.90	Industrial Foreman	4						
						5.60	Farmer, tenant, owns no capital, cattle or machinery	6	5.13	Bookkeeper	5	5.28	Policeman	4	5.88	Fireman	5			
									5.20	Government Office Clerk	4	5.81	Electrician, wages	5	5.89	Barber	5			
									5.26	Stenographer	5	5.92	Printer, wages	5	5.95	Beauty Operator	5			
									5.53	Routine Office Clerk	4	5.95	Motor Mechanic, wages	5						
									5.53	Motor Car Salesman	4									
									5.57	Post Office Clerk	4									
									5.62	Salesman, bookstore	5									
									5.67	Salesman, furniture store	5									
									5.75	Salesman, department store	5									
						6.37	Farm Labourer, established	6	6.26	Shop Assistant	6	6.07	Fitter	4	6.22	Machinist	6	6.61	Factory Operative	6
						6.72	Shepherd	6	6.26	Telephone Operator	5	6.16	Carpenter, wages	5	6.25	Carrier	5	6.91	Domestic Worker	7
									6.77	Sales Person, Woolworths	6	6.23	Plasterer, wages	5	6.25	Housekeeper	5			
												6.23	Painter, wages	5	6.31	Building Construction Worker	6			
												6.27	Butcher, wages	5	6.36	Storeman	6			
												6.28	Engine Driver or Fireman	4	6.41	Taxi Driver	6			
												6.29	Bar Manager	6	6.41	Bus Driver	6			
												6.29	Telephone Repairman	5	6.60	Miner	6			
												6.34	Bricklayer	5	6.61	Train Conductor or Motorman	6			
												6.40	Cook, restaurant	5	6.63	Petrol Station Attendant	6			
															6.65	Railway Conductor	4			
															6.73	Lorry Driver	6			
															6.82	Packer	6			
															6.90	Railway Shunter	5			
						7.17	Labourer, seasonal	7				7.24	Barman	7	7.15	Milk Deliveryman	6
						7.27	Farm Labourer, migratory	7				7.34	Railway Porter	6	7.15	Waitress	7
												7.44	Wharf Labourer	7	7.28	Migrant Worker	7
															7.31	Janitor	7
															7.37	Nightwatchman	6
															7.45	Labourer, unskilled	7
															7.48	Charwoman	7
															7.48	Road Sweeper	7

APPENDIX 7

NZ Interlaced Demographic program

SPSS^x PROGRAM FOR CREATION OF INTERLACED DEMOGRAPHIC SYSTEM

VALUE LABELS

OCCUP

    (1) NZSCO GROUPS 6,7,8

    (2) NZSCO GROUP 5

    (3) NZSCO GROUP 4

    (4) NZSCO GROUP 3

    (5) NZSCO GROUP 2

    (6) NZSCO GROUP 1/

DKIDS

    (1) 1 DEPENDENT CHILD

    (2) 2 DEPENDENT CHILDREN

    (3) 3 OR MORE DEPENDENT CHILDREN/

EDUCAT

    (1) PRIMARY SCHOOL

    (2) HIGH SCHOOL UP TO 3 YEARS

    (3) HIGH SCHOOL 4 OR MORE

    (4) SOME UNIVERSITY OR OTHER TERTIARY

    (5) UNIVERSITY OR OTHER TERTIARY GRADUATE/

INCOME

    (1) LESS THAN $10,000

    (2) $10,000 - $19,999

    (3) $20,000 - $29,999

    (4) $30,000 - $39,999

    (5) $40,000 AND OVER/

AGE

(1) 10 YEARS	(11) 20-24 YEARS
(2) 11 YEARS	(12) 25-29 YEARS
(3) 12 YEARS	(13) 30-34 YEARS
(4) 13 YEARS	(14) 35-39 YEARS
(5) 14 YEARS	(15) 40-44 YEARS
(6) 15 YEARS	(16) 45-49 YEARS
(7) 16 YEARS	(17) 50-54 YEARS
(8) 17 YEARS	(18) 55-59 YEARS
(9) 18 YEARS	(19) 60-64 YEARS
(10) 19 YEARS	(20) 65 AND OVER/

```
COMMENT   THIS WEIGHTS HOUSEHOLD INCOME


COMPUTE #TEMP1=INCOME*2


COMMENT   THIS INCREASES THE EDUCATION LEVELS RECORDED BY THOSE
          OLDER THAN 50 YEARS


RECODE AGE (17 THRU 20=1) (ELSE=0) INTO #TEMP2
COMPUTE #TEMP3 = #TEMP2 + EDUC


COMMENT   THIS CREATES A SCORE FOR THE HOUSEHOLD


COMPUTE SCORE = (#TEMP1 + OCCUP + #TEMP3) - DKIDS


COMMENT   THIS ALLOCATES THE HOUSEHOLD TO A GROUP
```

```
RECODE SCORE (1 THRU 5=1)(6 THRU 8=2)(9 THRU 12=3)(13 THRU 16=4)
             (17 THRU 19=5)(20 THRU 22=6)
```

APPENDIX 8

Elley and Irving indices

REVISED SOCIO-ECONOMIC INDEX: MALE WORKFORCE

Alphabetical List Of Occupations

2	Accountant, cost		1	Bacteriologist
1	Accountant, NEC		4	Bailiff
2	Actor		4	Baker
1	Actuary		6	Bakers labourer
2	Administration officer		4	Bale press operator
1	Agronomist		3	Bank officer
2	Air traffic controller		5	Bank teller
3	Aircraft engineering tradesman		5	Bartender
1	Aircraft flight crew		6	Basketry weaver
4	Aircraft loader		4	Beekeeper
4	Airport manager and supervisor		1	Biochemist
4	Aluminium worker		1	Biologist
4	Ambulance officer		6	Biscuit maker
1	Animal scientist		4	Blacksmith
2	Announcer, radio and T.V.		4	Bleacher
4	Apiary worker		4	Boatbuilder
2	Appraiser		4	Boiler attendant
1	Architect		4	Boiler maker
3	Armed forces, NEC		4	Bookbinder
2	Armed forces officer		3	Bookkeeper
3	Artificial limb and orthopaedic maker		1	Botanist
3	Artist, commercial		3	Brewer
4	Artist, painter		4	Brewery worker
3	Artist, technical		4	Brick kilnman
6	Asbestos cement product worker		4	Bricklayer
3	Auctioneer		2	Broadcasting station operator
2	Auditor		6	Brushmaker
2	Author		3	Builder
4	Automotive machinist		6	Building labourer

4	Building maintenance worker	6	Cleaner, factory
4	Bulldozer operator	5	Cleaner, NEC
5	Bushman, NEC	6	Cleaner, street
4	Bushman, skilled	2	Clerical supervisor
4	Butcher, retail	2	Clerk, audit
3	Buyer, NEC	2	Clerk, chief
2	Buyer, wool	2	Clerk, coding
		4	Clerk, corresponding and reporting
4	Cabinet maker	2	Clerk, legal
4	Cable splicer	4	Clerk, mail distribution
6	Cafeteria assistant	3	Clerk, NEC
3	Cameraman, motion picture and T.V.	4	Clerk, record and filing
5	Canning and bottling process worker	2	Clerk, statistical
4	Canvas worker	4	Clerk, stock
4	Canvasser	2	Clerk of works
3	Card and tape punching machine operator	4	Coach builder
5	Caretaker, building	4	Coil winder
4	Carpenter, NEC	5	Coke and coal gas maker
4	Cashier	3	Commercial artist
5	Chainman, surveyors	3	Commercial traveller
4	Chair maker	4	Compositor
4	Chauffeur	5	Compressor operator
3	Chef	3	Computer operator
4	Chemical processor and related worker, NEC	2	Computer programmer
1	Chemist	5	Concrete-mixing plant operator
2	Child welfare officer	5	Concrete products worker
5	Chimney sweep	4	Concrete worker, construction
4	Chipper operator	5	Confectionery maker
2	Chiropodist	3	Construction worker, NEC
1	Chiropractor	3	Cook, chief
5	Chocolate maker	5	Cook, NEC
5	Cigarette maker	2	Cook, ship
4	Cinema projectionist	3	Coppersmith

2	Copywriter	4	Driving instructor
5	Coremaker	4	Dry cleaner
4	Crane operator	5	Dustman
2	Critic	4	Dyer
2	Curator, art gallery and museum		
		1	Economist
4	Dairy product processor	2	Editor and sub-editor
6	Demolition labourer	5	Electrical equipment assembler
3	Demolition worker	4	Electrical appliance serviceman
4	Deer shooter	3	Electrical fitter
3	Dental mechanic	2	Electrical inspector
1	Dentist	4	Electrical lineman
2	Designer, industrial	3	Electrical products inspector
3	Designer, NEC	4	Electrical worker, NEC
2	Detective	3	Electrician, NEC
4	Diemaker	2	Electrician, ship
1	Diplomat	4	Electronic equipment assembler
2	Director, film, stage, T.V.	4	Electroplater
5	Docker, NEC	4	Electrotyper
1	Doctor	2	Engineer, aeronautical
6	Dishwasher	2	Engineer, agricultural
5	Ditch digger	2	Engineer, hydraulic
3	Drainlayer	2	Engineer, heating, ventilation and refrigeration
5	Drainlayers labourer	2	Engineer, industrial and machinery tools
6	Drainlaying labourer	1	Engineer, NEC
2	Draughtsman	2	Engineer, sanitary and drainage
4	Driver, bus	2	Engineer, ship
4	Driver, heavy vehicle		
5	Driver, light vehicle	6	Factory cleaner
5	Driver, NEC	6	Factory labourer
4	Driver, taxi	1	Farm adviser
4	Driver, timber-carrier	4	Farm cadet
5	Driver, tractor	4	Farm contractor

6	Farm hand, NEC	5	Forklift truck operator
5	Farm hand, orchard	5	Freezing worker
5	Farm hand, poultry	4	French polisher and furniture finisher
3	Farm inspector, NEC	5	Freight handler, NEC
4	Farm inspector, weeds and pests		
5	Farm machinery operator, NEC	5	Gardener
4	Farmer, cattle	4	Garment marker and cutter
4	Farmer, market gardener	3	Gas fitter
3	Farmer, NEC	4	Gem cutter and polisher
2	Farmer, stud racehorse	2	General manager
4	Fellmonger	1	Geologist
5	Fencer	1	Geophysicist
4	Fibre preparer	4	Glass blower
4	Fibreglass worker	6	Glass cutter and beveller
3	Field observer, scientific	4	Glass former, cutter, grinder and finisher
3	Fireman	5	Glass former, potter and related worker, NEC
5	Fish shop worker	4	Glass furnaceman
3	Fisherman, cray	5	Glazier
4	Fisherman, NEC	3	Goldsmith
3	Fishing boat captain	2	Government executive officer
2	Fitter, electronic computer	2	Government official, NEC
3	Fitter, NEC	1	Government official, senior
4	Florist or florist's assistant	2	Government administrator
2	Flying instructor	4	Grain miller
6	Food preserver, NEC	5	Grain miller, other and related worker, NEC
5	Food processor, NEC	6	Grave digger
2	Food and drink technologist	5	Green keeper
4	Foodstuff freezer	5	Groundsman
2	Forest adviser	4	Guard, train
5	Forest hand, leading	3	Guide, tour and travel
6	Forest hand, NEC	4	Guillotine operator
4	Forest hand, skilled	4	Gunsmith
3	Forest supervisor		

4	Hairdresser, mens	4	Lathe setter operator
3	Hairdresser, womens	3	Launch master
2	Harbour master and pilot	5	Launderer
2	Health inspector	1	Lawyer
4	Herd tester	5	Leather goods maker
5	Horse trainer	1	Lecturer, tertiary institution
2	Horticulturist	1	Librarian
5	Hospital orderly	2	Librarian assistant
6	House staff	6	Lift attendant
4	Housekeeper, residential institutions	3	Lighthouse keeper
4	Housekeeping and related service worker, NEC	3	Lithographic machinist
		5	Loader, NEC
4	Ice cream maker	2	Local body official, NEC
2	Industrial instrumentation serviceman	1	Local body official, senior
3	Instrumentalist	4	Locksmith
4	Insulator	3	Logging contractor
3	Interior decoration designer	3	Logging manager
		3	Logging supervisor
3	Jeweller		
4	Jewellery engraver	4	Machine tool operator
5	Jewellery worker	4	Machine tool setter operator
6	Jockey	4	Machinery fitter, NEC
4	Joiner, NEC	4	Machinery operator, earthmoving, NEC
2	Journalist	6	Machinist, sewing
1	Judge	4	Mail delivery contractor
		4	Malt worker
6	Kitchen hand	3	Manager, catering and lodging services
5	Knitter, NEC	4	Manager, farm
		3	Manager, forest
6	Labourer, NEC	4	Manager, hostel
5	Laminated sheet plastic worker	3	Manager, hotel and motel
2	Land agent	3	Manager, logging
5	Lathe operator	2	Manager, NEC

1	Manager, research and development		5	Metal plater and coater, NEC
3	Manager, restaurant		4	Metal polisher
3	Manager, retail and shop		3	Metal pourer
3	Manager, service		4	Metal preparer and erector, NEC
2	Managing director		6	Metal press operator
2	Manufacturers agent		4	Metal processor, NEC
6	Market garden worker		3	Metal shipwright and plater
2	Market research analyst		4	Metal smelting, converting and refining furnace-man
1	Mathematician			
6	Mattress worker		4	Metal spinner
4	Mason, monument		1	Metallurgist
4	Meat grader		1	Meteorologist
2	Meat inspector (not veterinarian)		3	Milkman
5	Meat preparer, NEC		4	Miner, general, excluding coal
4	Meat smallgoods worker		5	Miner, NEC
3	Mechanic, accounting and calculating machines		3	Minister of religion
2	Mechanic, aircraft		6	Motor vehicle process worker
3	Mechanic, diesel		3	Mushroom grower
3	Mechanic, duplicating and addressing machines		4	Musical instrument maker and tuner
3	Mechanic, earthmoving and construction machinery		3	Musician
3	Mechanic, heating, ventilation and air conditioning		4	News vendor and agent
4	Mechanic, NEC		5	Nurse aid
3	Mechanic, plant maintenance		5	Nurse, community including trainee
3	Mechanic, printing machine		3	Nurse, NEC
3	Mechanic, refrigeration		4	Nurse trainee, general
3	Mechanic, textile machine		5	Nursery worker
3	Mechanical products inspector		3	Nurseryman
1	Member of Parliament			
4	Metal caster		4	Office machine operator
6	Metal dresser		2	Office manager
6	Metal grinder, NEC		4	Oil, fat and margarine worker
5	Metal moulder		5	Oiler and greaser, excluding ship
3	Metal pattern maker		1	Operations research analyst

6	Opossum destruction worker	4	Photographic darkroom worker
4	Optical instrument worker	1	Physicist
1	Optician	1	Physiotherapist
1	Optometrist	5	Pickling and curing worker
3	Orchardist	1	Pilot, airline
1	Osteopath	2	Pilot, NEC
4	Oyster farm worker	4	Pipe fitter
5	Oyster opener and canner	4	Plastic products worker
		4	Plasterer
6	Packer, food	3	Plumber
5	Packer, NEC	3	Policeman
4	Painter, artist	6	Porter, hotel
5	Painter, car	4	Post and telegram deliverer
2	Painter, decorator	4	Post Office counter clerk
4	Painter, NEC	3	Postal services supervisor
5	Painter, spray	3	Postmaster
3	Panel production worker, including plywood	3	Potter, hand
4	Panel beater	6	Potter and related worker, NEC
4	Paper bag maker	5	Pottery and porcelain mould maker
3	Paper production worker	3	Power generating assistant operator
6	Paper products maker, NEC	3	Power generating machinery fitter
2	Paperhanger	2	Power generating machinery operator, NEC
1	Pathologist	3	Power generating station operation, hydro-electric
5	Pattern maker and cutter, NEC		
5	Pelt dresser	4	Power house attendant
3	Performing artist, NEC	3	Precision-instrument worker
2	Personnel officer	6	Presser, laundry
6	Pest destruction worker	4	Printer, NEC
3	Petroleum-refining worker	5	Printer, wallpaper
4	Pharmaceutical assistant	4	Printing pressman, NEC
1	Pharmacist	3	Prison officer
3	Photo-engraver	2	Probation officer
3	Photographer	2	Producer, performing arts

4	Production supervisor, footwear manufacture	4	Receptionist
3	Production supervisor, NEC	5	Refuse collector
5	Production worker, NEC	5	Religious worker
3	Proof reader	2	Reporter
1	Psychologist	1	Research officer, social sciences
2	Public relations officer	4	Rigger
4	Pulp production worker	4	Road-grader operator
4	Pumping station operator	6	Road maintenance labourer
3	Punch card machine operator	5	Road-making machinery operator, NEC
3	Purchasing agent	3	Road transport supervisor
2	Purser, ship	4	Roofer
		4	Rubber products worker
3	Quality inspector		
2	Quantity surveyor	2	Safety inspector and/or officer
		3	Salesperson, business services
6	Rabbit destruction worker	4	Salesperson, driver
4	Racecourse starter, steward, timekeeper, etc.	2	Salesperson, insurance
2	Radio announcer	4	Salesperson, NEC
6	Radio assembler	5	Salesperson, spare parts
2	Radio operator, aircraft and ship	2	Salesperson, technical
3	Radio repairman	4	Salesperson, warehouse
4	Radio-telephone operator, land-based	3	Sales representative
2	Radiographer	3	Sales supervisor, NEC
3	Railway engine driver	4	Saw doctor
3	Railway station master	6	Sawmiller, NEC
4	Railways goods manager	5	Sawyer/planer, timber machinist
3	Railways supervisor	4	Scaffolder
6	Railways trackman	4	Scale mechanic
3	Railways traffic dispatcher and inspector	1	School inspector
4	Railway worker, NEC	1	School principal
4	Ranger, acclimatisation	1	Scientist, NEC
2	Ranger, national park	4	Sculptor
2	Real estate agent	2	Secretary-organiser

2	Secretary-typist	3	Steward, NEC
4	Security officer	5	Steward, wine
6	Service station attendant	5	Still and reactor operator
4	Service worker, NEC	4	Stock and station agent
5	Shearer	1	Stockbroker
3	Sheetmetal worker, aircraft	5	Stockman
4	Sheetmetal worker, NEC	5	Stone cutter and carver, NEC
6	Shepherd	4	Stoneman, construction
4	Ships crew	5	Storeman
5	Ships engine room rating	3	Street vendor
2	Ships master and officer	4	Sugar processor
6	Shoe maker and related worker	1	Surveyor, land
4	Shoe maker-bespoke	2	Surveyor, NEC
5	Shoe repairer	4	Synthetic fibre maker
5	Shop assistant	1	Systems analyst
4	Signwriter		
3	Silversmith	2	TAB agent
3	Singer	4	Tailor
5	Slaughterman	4	Tanner
2	Social worker, NEC	4	Taxidermist
3	Sound recording operator	3	Teacher, music and singing, private
6	Spinner and winder, NEC	1	Teacher, NEC
5	Spinner and winder, woollen mills	2	Teacher, private primary school
2	Sports coach	2	Teacher, special education
4	Sportsman, professional	2	Teachers college student
5	Springmaker	3	Technical lithographic artist
6	Stable hand	2	Technician, NEC
2	Staff training officer	4	Technician, orthopaedic
4	Stationary engine operator	3	Technician, other medical x-ray
1	Statistician	3	Technician, surveyors
4	Steel erector	4	Telephone and telegraph operator
4	Stereotyper	3	Telephone and telegraph installer
2	Steward, chief, ship	4	Telephone and telegraph lineman

3	Telephone, telegraph and telecommunications supervisor	1	Vocational guidance officer
4	Teletypist	5	Waiter
2	Television announcer	5	Warehouseman
6	Television assembler	4	Watchmaker
3	Television repairman	4	Watchman, night
5	Textile press operator	4	Water treatment plant operator
4	Tile kilnman	4	Waterside worker
4	Tiler, wall, floor and roof	4	Weaver and related worker
5	Timber grader	4	Weaving and knitting machine setter and pattern-card preparer
5	Timber machinist	4	Welder, NEC
6	Timber stacker, hand	5	Welder, oxyacetylene and gas
4	Timber treater	3	Welder/fitter
4	Tinsmith	4	Well driller borer
5	Tobacco preparer and tobacco product maker, NEC	3	Well sinker, artesian and steam
4	Tool grinder	5	Winch operator
3	Tool maker	4	Window dresser
1	Town and country planner	4	Wine worker
4	Toymaker	6	Wire worker
3	Traffic officer	4	Wood carver
3	Transport and communications supervisor, NEC	4	Wood turner and lathe operator
2	Tug master	5	Woodworking machine operator, NEC
3	Turner	3	Wool grader
3	Tyre builder	4	Wool preparer, NEC
4	Tyre moulder	4	Working proprietor, cafe bar, snack bar
5	Tyre retreader	3	Working proprietor, catering and lodging services
		4	Working proprietor, guest house
2	Undertaker	3	Working proprietor, hotel
5	Upholsterer	3	Working proprietor, motel
		3	Working proprietor, restaurant
1	Valuer, urban and rural	3	Working proprietor, retail and shop
6	Vehicle washer	2	Working proprietor, wholesale, warehouse and retail trade
1	Veterinarian		

REVISED SOCIO-ECONOMIC INDEX: FEMALE WORKFORCE

Alphabetical List Of Occupations

1	Accountant	2	Broadcasting station operator
2	Actor	5	Brush maker
2	Administration officer	2	Builder
2	Air traffic controller	2	Building contractor
1	Announcer, radio and TV	4	Butcher
6	Apiary worker	3	Buyer
2	Appraiser		
1	Architect	3	Cabinet maker
3	Armed forces, NEC	4	Cabinet maker and related worker
2	Armed forces officer	6	Cafeteria assistant
2	Artist, commercial	5	Cameraman, motion picture and TV
3	Artist, painter	6	Canning and bottling process worker
2	Artist, technical	5	Canvas worker
2	Auditor	5	Canvasser
2	Author	3	Card and tape punching machine operator
		4	Caretaker, building
1	Bacteriologist	4	Carpenter
4	Baker	6	Carpentry worker
6	Bakers labourer	4	Cashier
3	Bank teller	3	Chauffeur
4	Bartender	4	Chef
6	Basket worker	4	Chemical processor
4	Beautician	1	Chemist
5	Beverage processor, NEC	2	Child welfare officer
1	Biochemist	3	Chiropodist
5	Biscuit maker	6	Chocolate maker
4	Bleacher	4	Cleaner, interior: railway carriage, bus, aircraft, etc.
4	Bookbinder and related worker		
1	Botanist	6	Cleaner, NEC
6	Brewer, NEC	2	Clerical supervisor

2	Clerk, chief	1	Draughtsman, civil engineering
4	Clerk, correspondence and reporting, general	2	Draughtsman, NEC
2	Clerk, correspondence and reporting, other	4	Dressmaker
4	Clerk, mail distribution	4	Driver
3	Clerk, NEC	4	Driving instructor
2	Clerk, staff	4	Dry cleaner
2	Clerk, statistical	4	Dyer
4	Clerk, storeroom		
2	Clerk, travel and booking	1	Economist
4	Coil winder	1	Editor and sub-editor
2	Commercial artist	4	Electric equipment assembler
2	Commercial traveller	4	Electrical fitter
4	Compositor	3	Electrical lineman
3	Computer operator	4	Electrical products inspector
2	Computer programmer	4	Electrical worker, NEC
6	Confectionery maker	4	Electronic equipment assembler
4	Cook	4	Embroiderer
2	Copywriter		
2	Critic	6	Fabric examiner
2	Curator, art gallery and museum	6	Factory cleaner
		6	Factory labourer
6	Dairy product worker, NEC	2	Farm cadet
4	Dancer	6	Farm hand, NEC
4	Demonstrator	2	Farm inspector
3	Dental assistant, NEC	4	Farmer, berryfruit grower
3	Dental mechanic	2	Farmer, dairy
2	Dental nurse, school	2	Farmer, grain or other crop
2	Designer, NEC	5	Farmer, grape grower
2	Dietician	4	Farmer, market gardener
1	Diplomatic official	3	Farmer, NEC
6	Dishwasher	4	Farmer, nurseryman
1	Doctor	2	Farmer, poultry
4	Doll maker	4	Farmer, specialised, NEC

2	Farmer, stud racehorse	6	Hat maker
4	Farmer, tobacco	1	Health education officer
4	Farmer, tomato grower	1	Health inspector
4	Fellmonger	3	Herd tester
3	Fibreglass worker	6	Horse trainer
2	Field observer, scientific	2	Horticulturist
6	Fish shop worker	4	Hospital orderly
3	Fisherman	5	House staff
4	Fitter	3	Housekeeper, NEC
4	Florist or florists assistant	6	Housekeeper, private service
6	Food preserver, NEC	4	Housekeeping service worker, NEC
5	Food processor, NEC	4	Housekeeping supervisor
2	Food and drink technologist		
4	Foodstuff freezer	4	Ice cream maker
5	Forest hand	2	Instrumentalist
4	Forklift truck operator	2	Interior decoration designer
4	Freezing worker		
4	French polisher and furniture finisher	2	Jeweller
4	Fur worker	4	Jewellery and precious metal worker
		4	Joiner
4	Gardener	2	Journalist
4	Garment pattern maker and cutter		
2	General manager	5	Kitchen hand
4	Glass and ceramics painter and decorator	4	Knitter
5	Glass former and related worker	4	Knitting machinist
1	Government official, executive		
4	Grain mill worker	4	Labourer, building
4	Greenkeeper	6	Labourer, NEC
4	Groundsman	2	Land agent
3	Guide, tour and travel	5	Launderer
		6	Launderer, dry cleaner and presser, NEC
3	Hairdresser, mens	1	Lawyer
4	Hairdresser, womens	4	Leather garment cutter

4	Leather goods worker	4	Metal press operator
1	Lecturer, tertiary institution	4	Metal processor, NEC
2	Librarian	4	Milkman
2	Library assistant	6	Milliner
3	Linotype operator	4	Minister of religion
1	Local body official, executive	4	Model, fashion
		3	Monotype operator
3	Machine operator, bookkeeping	4	Motor vehicle process worker and assembler
4	Machine operator, calculating	2	Musician
4	Machine tool operator		
4	Machine tool setter operator	4	News vendor and agent
4	Machinery fitter	4	Nurse aid
5	Machinist, sewing	4	Nurse, community including trainee
4	Mail delivery contractor	4	Nurse, karitane including trainee
4	Manager, catering and lodging services	2	Nurse, registered, NEC
3	Manager, farm	3	Nurse, unregistered, NEC
4	Manager, hostel	3	Nurse, trainee, general
3	Manager, hotel and motel	6	Nursery worker
2	Manager, NEC	4	Nurseryman
1	Manager, research and development	2	Nutritionist, public health
3	Manager, restaurant		
3	Manager, retail and shop	2	Occupational therapist
2	Managing director	2	Office manager
6	Market garden worker	4	Office machine operator
2	Market research analyst	4	Optical instrument maker
6	Mattress worker	1	Optician
4	Masseur	1	Optometrist
4	Meat smallgoods worker	3	Orchardist
4	Mechanic, motor vehicle	6	Oyster opener and canner
3	Mechanical products inspector and tester		
2	Medical assistant	6	Packer, food
1	Member of Parliament	5	Packer, NEC
4	Metal plater and coater	3	Painter, artist

4	Painter, NEC	4	Production worker, NEC
4	Panel production worker	2	Proof reader
4	Paper production worker	1	Psychologist
4	Paper products worker	2	Public relations officer
5	Paperboard products worker	3	Punch card machine operator
4	Paperhanger	2	Purchasing agent
2	Personnel officer		
4	Pharmaceutical assistant	4	Quality inspector
1	Pharmacist	2	Quantity surveyor
3	Photo-engraver		
3	Photographer	1	Radio announcer
4	Photographic darkroom worker	4	Radio assembler
2	Physiotherapist	4	Radio repairman
6	Pickling and curing worker	4	Radio-telephone operator
5	Plastic products assembler	2	Radiographer
4	Plastic products maker, NEC	2	Real estate agent
2	Policeman	3	Receptionist, hotel
4	Porter, hotel	4	Receptionist, NEC
4	Post and telegram deliverer	3	Receptionist, travel agent
3	Post Office counter clerk	4	Religious worker
2	Postal services supervisor	2	Reporter
2	Potter, hand	1	Research officer, social sciences
4	Potter, other	6	Restroom attendant
5	Pottery and porcelain mould maker	4	Rubber products worker
4	Presser, laundry		
4	Printer	5	Saddler
3	Printing engraver	3	Salesperson, NEC
4	Printing pressman	4	Salesperson, spare parts
2	Prison officer	4	Salesperson, warehouse
1	Probation officer	2	Sales representative
1	Producer, performing arts	2	Sales supervisor, NEC
3	Production supervisor, NEC	3	Sales supervisor, wholesale and retail
4	Production supervisor, textiles and clothing	4	Sawmill worker

1	School inspector	4	Street vendor
1	School principal	4	Stuffed toymaker
1	Scientist, NEC	1	Systems analyst
3	Sculptor		
3	Secretary-typist	2	TAB agent
3	Security officer	4	Tailor
4	Service station attendant	4	Tanner
4	Service worker, NEC	4	Teacher, dancing, private
6	Sewer, hand	2	Teacher, kindergarten including trainee
5	Sewer, machine	3	Teacher, music and singing, private
6	Shearer and shed hand	1	Teacher, NEC
4	Sheetmetal worker	4	Teacher, other, NEC
6	Shepherd	4	Teacher, pre-primary, NEC
6	Shoe bench worker	2	Teacher, private primary school
4	Shoe cutter	2	Teacher, special education
6	Shoe making worker, NEC	2	Teachers college student, primary
5	Shoe sewer and machinist	1	Teachers college student, secondary
5	Shop assistant	1	Technician, forest
4	Silkscreen printer	2	Technician, NEC
2	Singer	3	Technician, telecommunications
2	Social worker, NEC	3	Telegraphist
1	Speech therapist	3	Telephone and telegraph installer
4	Spinner and winder	3	Telephone and telegraph lineman
2	Sports coach	3	Telephone switchboard operator
6	Stable hand	2	Telephone, telegraph and telecommunications supervisor
2	Staff training officer		
1	Statistician	1	Television announcer
2	Steward, aircraft	4	Television assembler
2	Steward, ship	4	Television repairman
3	Steward, train or bus	4	Textile press operator
4	Steward, wine	4	Tobacco preparer and tobacco product maker
4	Stockman	4	Tool maker
4	Storeman	1	Town and country planner

APPENDIX 9

NZ SOCIAL GRADING

EXAMPLES OF SOCIAL GRADE OCCUPATIONAL GROUPINGS

1   PROFESSIONAL, MANAGERIAL

Doctor, dentist, lawyer, architect, accountant, director, sales manager, departement manager, school teacher, journalist, scientist, computer programmer, tutor, company manager, consultant.

2   OTHER WHITE COLLAR

Clerk, typist, draughtsman, nurse, kindergarten teacher, cashier, supervisor, social worker, purchasing officer, salesman, dairy owner or operator, dental nurse, receptionist, librarian, travel agent, computer operator, office supervisor.

3   SKILLED

Mechanic, fitter and turner, builder, panel beater, carpenter, painter, paper hanger, boilermaker, sheet metal worker, hairdresser, armed forces, policeman, photographer, any other qualified trademan, farmers.

4   SEMI - SKILLED

Shop assistant, bus driver, taxi driver, welder (non qualified), truck driver, foreman, fisherman, cook (non qualified), bar tender, steward, machinist, railway worker - shunter, watersider, shearers.

5   UNSKILLED

Labourers of any sort, process worker, postie, factory hand, storeman, maid, cleaner.

6   RETIRED, NON WORKING, HOUSWIFE, STUDENT

APPENDIX 10

Frank, Massy and Boyd

TYPICAL R^2 VALUES FOR GROCERY PRODUCTS

The following R^2 values were obtained from a study conducted by Frank, Massy and Boyd (1967). The independent variables were:

SOCIO-ECONOMIC

 Income
 Occupation
 Education
 Number of cars
 Number of tv sets
 Religion of household heads
 Race of household heads
 Building size
 Employment status of housewife

DEMOGRAPHIC

 Family size
 Number of adults
 Age of female head
 Age of youngest child
 Status of housewife (living with husband or not)

All R^2 values were adjusted for degrees of freedom.

PRODUCT CATEGORIES	ALL VARIABLES R^2	DEMOGRAPHIC ONLY R^2
Beverages		
Regular coffee	.15	.05
Soluble coffee	.00	.00
Tea	.01	.01
Flour and baking products		
All purpose flour	.12	.10
Pancake flour	.09	.09
Cake mixes	.21	.14
Roll mixes	.11	.04
Dairy Products		
Canned Milk	.18	.07

PRODUCT CATEGORIES	ALL VARIABLES R^2	DEMOGRAPHIC ONLY R^2
Oils, fats, dressings and sauces		
Margarine	.23	.21
Vegetable shortening	.11	.08
Salad dressings	.24	.20
Cooking oils	.08	.04
Peanut butter	.24	.22
Food specialties		
Dog food	.00	.00
Meat, fish and poultry	.06	.06
Dinners, frozen	.02	.02
Instant potatoes	.07	.04
Frozen vegetables	.05	.02
Cereals		
Hot cereals	.13	.11
Ready to eat cerals	.28	.28
Rice	.29	.09
Desserts and puddings		
Packaged desserts	.11	.07
Syrup	.20	.15
Snacks		
Potato chips	.20	.18
Dessert toppings	.11	.09
Packaged fruit and juices		
Peaches	.03	.03
Pineapple	.05	.02
Friut cocktail	.08	.06
Chilled orange juice	.02	.01
Frozen fruit	.02	.00
Concentrated fruit juices	.14	.06
Fruit juices	.07	.05
Packaged vegetables and vegetable juice		
Pork and beans	.18	.17
Canned corn	.14	.13
Tomato paste	.12	.11
Frozen vegetables	.08	.02
Canned fish		
Canned tuna	.16	.12

PRODUCT CATEGORIES	ALL VARIABLES R^2	DEMOGRAPHIC ONLY R^2
Paper and paper specialties		
Toilet paper	.12	.11
Waxed paper	.09	.07
Paper napkins	.11	.05
Cleansing tissue	.05	.04
Paper towels	.00	.00
Food wrappers	.03	.02
Condiments		
Catsup and chile sauce	.22	.19

APPENDIX 11

TABLES OF ADJUSTED R^2

The following tables were prepared from SPSSx regression printout.

ALCHOHOLIC BEVERAGES

SAGACITY:1	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
Bottled or canned beer	.03	.01	.07
Draught NZ beer	.01	.0	.61
Overseas beer	.01	.0	.64
Bourbon	.01	.0	.75
Whiskey	.03	.02	.01
Gin	.04	.02	.01
Dark rum	.04	.02	.00
White rum	.02	.0	.26
Vodka	.04	.02	.00
Brandy or cognac	.02	.01	.12
Liqueur	.01	.0	.71
Any other spirit	.02	.01	.11
Red table wine	.04	.02	.00
Still table wine	.09	.08	.00
Any sparkling wine	.02	.0	.28
Vermouth	.01	.0	.61
Sherry or port	.05	.04	.00

SAGACITY:2			
Bottled or canned beer	.02	.01	.12
Draught NZ beer	.02	.0	.43
Overseas beer	.01	.0	.77
Bourbon	.02	.0	.29
Whiskey	.03	.02	.01
Gin	.03	.02	.01
Dark rum	.05	.03	.00
White rum	.01	.0	.56
Vodka	.02	.01	.15
Brandy or cognac	.03	.01	.03
Liqueur	.03	.01	.06
Any other spirit	.02	.01	.12
Red table wine	.03	.02	.01
Still table wine	.09	.08	.00
Any sparkling wine	.02	.0	.29
Vermouth	.01	.0	.45
Sherry or port	.04	.03	.00

SAGACITY:3

Bottled or canned beer	.02	.01	.10
Draught NZ beer	.01	.0	.51
Overseas beer	.01	.0	.57
Bourbon	.03	.02	.02
Whiskey	.04	.02	.00
Gin	.04	.03	.00
Dark rum	.04	.02	.00
White rum	.01	.0	.72
Vodka	.03	.01	.05
Brandy or cognac	.02	.0	.41
Liqueur	.04	.02	.00
Any other spirit	.02	.01	.13
Red table wine	.03	.02	.02
Still table wine	.08	.07	.00
Any sparkling wine	.02	.0	.43
Vermouth	.01	.0	.80
Sherry or port	.04	.03	.00

McNair Respondent

Bottled or canned beer	.05	.04	.00
Draught NZ beer	.06	.04	.00
Overseas beer	.03	.01	.04
Bourbon	.02	.0	.32
Whiskey	.03	.02	.01
Gin	.02	.0	.39
Dark rum	.03	.02	.02
White rum	.01	.0	.75
Vodka	.02	.0	.46
Brandy or cognac	.02	.01	.19
Liqueur	.01	.0	.59
Any other spirit	.03	.01	.08
Red table wine	.05	.03	.00
Still table wine	.06	.04	.00
Any sparkling wine	.02	.0	.21
Vermouth	.01	.0	.78
Sherry or port	.03	.01	.03

NZ Interlaced Demographics:6

Bottled or canned beer	.02	.01	.02
Draught NZ beer	.0	.0	.68
Overseas beer	.01	.0	.41
Bourbon	.02	.01	.02
Whiskey	.02	.01	.03
Gin	.01	.0	.30
Dark rum	.01	.01	.10
White rum	.0	.0	.99
Vodka	.01	.01	.11
Brandy or cognac	.01	.0	.27
Liqueur	.01	.0	.59
Any other spirit	.02	.01	.02
Red table wine	.03	.03	.00
Still table wine	.07	.07	.00
Any sparkling wine	.01	.0	.56
Vermouth	.0	.0	.86
Sherry or port	.02	.01	.02

NZ Interlaced Demographics:3

Bottled or canned beer	.01	.0	.08
Draught NZ beer	.0	.0	.68
Overseas beer	.01	.0	.14
Bourbon	.01	.01	.03
Whiskey	.0	.0	.18
Gin	.0	.0	.34
Dark rum	.0	.0	.74
White rum	.0	.0	.77
Vodka	.01	.0	.07
Brandy or cognac	.0	.0	.44
Liqueur	.0	.0	.31
Any other spirit	.01	.01	.02
Red table wine	.01	.01	.03
Still table wine	.04	.03	.00
Any sparkling wine	.0	.0	.32
Vermouth	.0	.0	.86
Sherry or port	.01	.0	.07

Elley-Irving

Bottled or canned beer	.02	.01	.05
Draught NZ beer	.0	.0	.76
Overseas beer	.02	.01	.02
Bourbon	.02	.01	.07
Whiskey	.0	.0	.79
Gin	.02	.01	.07
Dark rum	.01	.0	.10
White rum	.01	.0	.30
Vodka	.02	.02	.01
Brandy or cognac	.01	.0	.35
Liqueur	.01	.0	.34
Any other spirit	.01	.01	.13
Red table wine	.03	.02	.00
Still table wine	.05	.05	.00
Any sparkling wine	.01	.0	.61
Vermouth	.01	.0	.35
Sherry or port	.02	.01	.03

McNair Respondent

Bottled or canned beer	.03	.01	.06
Draught NZ beer	.01	.0	.75
Overseas beer	.03	.01	.03
Bourbon	.02	.0	.45
Whiskey	.01	.0	.62
Gin	.02	.0	.21
Dark rum	.02	.0	.31
White rum	.01	.0	.72
Vodka	.04	.03	.01
Brandy or cognac	.01	.0	.65
Liqueur	.01	.0	.61
Any other spirit	.02	.0	.48
Red table wine	.04	.02	.00
Still table wine	.07	.05	.00
Any sparkling wine	.01	.0	.69
Vermouth	.09	.08	.00
Sherry or port	.03	.01	.04

Education Respondent

Bottled or canned beer	.01	.0	.30
Draught NZ beer	.0	.0	.72
Overseas beer	.0	.0	.70
Bourbon	.0	.0	.66
Whiskey	.01	.0	.32
Gin	.0	.0	.56
Dark rum	.01	.01	.10
White rum	.0	.0	.78
Vodka	.0	.0	.94
Brandy or cognac	.01	.0	.14
Liqueur	.02	.02	.00
Any other spirit	.02	.02	.00
Red table wine	.04	.03	.00
Still table wine	.06	.05	.00
Any sparkling wine	.01	.0	.16
Vermouth	.01	.01	.09
Sherry or port	.0	.0	.69

Age Respondent

Bottled or canned beer	.04	.03	.00
Draught NZ beer	.04	.02	.00
Overseas beer	.03	.01	.06
Bourbon	.02	.0	.35
Whiskey	.02	.0	.30
Gin	.06	.04	.00
Dark rum	.04	.02	.01
White rum	.01	.0	.85
Vodka	.02	.0	.29
Brandy or cognac	.02	.0	.38
Liqueur	.02	.01	.21
Any other spirit	.02	.0	.38
Red table wine	.02	.0	.59
Still table wine	.02	.0	.25
Any sparkling wine	.02	.01	.18
Vermouth	.02	.0	.37
Sherry or port	.04	.02	.02

NZSCO CWE

Bottled or canned beer	.01	.0	.45
Draught NZ beer	.01	.0	.45
Overseas beer	.01	.0	.48
Bourbon	.03	.02	.01
Whiskey	.01	.0	.72
Gin	.02	.01	.14
Dark rum	.02	.01	.05
White rum	.01	.0	.49
Vodka	.03	.02	.00
Brandy or cognac	.01	.0	.40
Liqueur	.01	.0	.58
Any other spirit	.01	.0	.84
Red table wine	.02	.01	.09
Still table wine	.05	.04	.00
Any sparkling wine	.02	.0	.17
Vermouth	.01	.0	.62
Sherry or port	.02	.01	.12

Social Grade Respondent

Bottled or canned beer	.03	.02	.00
Draught NZ beer	.03	.02	.01
Overseas beer	.02	.02	.01
Bourbon	.01	.0	.39
Whiskey	.01	.0	.33
Gin	.0	.0	.82
Dark rum	.04	.03	.00
White rum	.0	.0	.91
Vodka	.0	.0	.81
Brandy or cognac	.01	.0	.70
Liqueur	.01	.0	.12
Any other spirit	.01	.01	.00
Red table wine	.03	.02	.00
Still table wine	.04	.03	.14
Any sparkling wine	.01	.0	.76
Vermouth	.0	.0	.29
Sherry or port	.01	.0	.00

NZSCO Respondent

Bottled or canned beer	.04	.03	.00
Draught NZ beer	.04	.02	.00
Overseas beer	.03	.02	.00
Bourbon	.02	.01	.09
Whiskey	.01	.0	.23
Gin	.01	.0	.46
Dark rum	.05	.03	.00
White rum	.01	.0	.89
Vodka	.01	.0	.63
Brandy or cognac	.02	.0	.19
Liqueur	.01	.0	.24
Any other spirit	.03	.02	.01
Red table wine	.02	.01	.04
Still table wine	.04	.03	.00
Any sparkling wine	.05	.04	.00
Vermouth	.0	.0	.44
Sherry or port	.01	.0	.27

Social Grade CWE:1

Bottled or canned beer	.01	.0	.43
Draught NZ beer	.01	.01	.09
Overseas beer	.0	.0	.76
Bourbon	.01	.0	.52
Whiskey	.01	.0	.18
Gin	.0	.0	.72
Dark rum	.01	.0	.34
White rum	.01	.01	.08
Vodka	.01	.0	.29
Brandy or cognac	.01	.0	.48
Liqueur	.0	.0	.83
Any other spirit	.0	.0	.84
Red table wine	.01	.01	.06
Still table wine	.04	.04	.00
Any sparkling wine	.0	.0	.97
Vermouth	.01	.0	.40
Sherry or port	.02	.01	.04

Income Respondent

Bottled or canned beer	.03	.02	.00
Draught NZ beer	.02	.01	.01
Overseas beer	.01	.0	.38
Bourbon	.01	.0	.43
Whiskey	.03	.02	.00
Gin	.02	.01	.05
Dark rum	.01	.0	.15
White rum	.01	.0	.55
Vodka	.0	.0	.91
Brandy or cognac	.01	.0	.50
Liqueur	.02	.01	.02
Any other spirit	.01	.0	.19
Red table wine	.02	.01	.02
Still table wine	.04	.03	.00
Any sparkling wine	.02	.01	.06
Vermouth	.01	.0	.22
Sherry or port	.01	.0	.29

Income Household

Bottled or canned beer	.01	.01	.07
Draught NZ beer	.0	.0	.86
Overseas beer	.01	.0	.15
Bourbon	.01	.0	.28
Whiskey	.01	.0	.14
Gin	.0	.0	.56
Dark rum	.01	.0	.19
White rum	.0	.0	.53
Vodka	.01	.0	.40
Brandy or cognac	.01	.0	.26
Liqueur	.01	.01	.03
Any other spirit	.0	.0	.61
Red table wine	.01	.0	.42
Still table wine	.02	.02	.00
Any sparkling wine	.01	.0	.12
Vermouth	.0	.0	.88
Sherry or port	.01	.0	.16

Social Grade CWE:2

Bottled or canned beer	.01	.0	.16
Draught NZ beer	.01	.0	.53
Overseas beer	.01	.0	.31
Bourbon	.01	.0	.85
Whiskey	.01	.0	.74
Gin	.0	.0	.50
Dark rum	.01	.0	.84
White rum	.01	.0	.54
Vodka	.01	.0	.67
Brandy or cognac	.01	.0	.78
Liqueur	.0	.0	.96
Any other spirit	.0	.0	.99
Red table wine	.02	.01	.14
Still table wine	.04	.03	.00
Any sparkling wine	.0	.0	.95
Vermouth	.01	.0	.63
Sherry or port	.02	.0	.20

OTHER BEVERAGES

SAGACITY:1	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
Orange	.09	.08	.0
Teabags	.06	.05	.0
Instant coffee	.07	.06	. .0
Powdered fruit drink	.04	.03	.0
Liquid fruit drinks	.03	.01	.0
Cold milk drink	.05	.04	.0
Cola	.06	.05	.0
Lemonade	.01	.0	.0
Tonic soda gingerale	.02	.0	.0
Mineral water	.01	.0	.0

SAGACITY:2			
Orange	.09	.07	.0
Teabags	.06	.05	.0
Instant coffee	.08	.06	.0
Powdered fruit drink	.04	.03	.0
Liquid fruit drinks	.03	.01	.0
Cold milk drink	.05	.03	.0
Cola	.06	.05	.0
Lemonade	.01	.0	.0
Tonic soda gingerale	.02	.01	.0
Mineral water	.01	.0	.0

SAGACITY:3			
Orange	.09	.07	.0
Teabags	.06	.05	.0
Instant coffee	.07	.06	.0
Powdered fruit drink	.04	.03	.0
Liquid fruit drinks	.03	.01	.0
Cold milk drink	.05	.04	.0
Cola	.06	.05	.0
Lemonade	.02	.0	.0
Tonic soda gingerale	.01	.0	.0
Mineral water	.01	.0	.0

McNair Respondent			
Orange	.05	.04	.00
Teabags	.04	.03	.00
Instant coffee	.08	.07	.00
Powdered fruit drink	.03	.02	.01
Liquid fruit drinks	.03	.02	.01
Cold milk drink	.05	.03	.00
Cola	.04	.03	.00
Lemonade	.01	.0	.49
Tonic soda gingerale	.02	.0	.26
Mineral water	.03	.01	.02

NZ Interlaced Demographics:6

Orange	.0	.0	.21
Teabags	.02	.02	.00
Instant coffee	.03	.01	.00
Powdered fruit drink	.01	.01	.05
Liquid fruit drinks	.02	.01	.00
Cold milk drink	.01	.0	.31
Cola	.01	.0	.47
Lemonade	.0	.0	.89
Tonic soda gingerale	.01	.01	.10
Mineral water	.0	.0	.86

NZ Interlaced Demographics:3

Orange	.0	.0	.33
Teabags	.02	.01	.00
Instant coffee	.02	.01	.00
Powdered fruit drink	.01	.01	.00
Liquid fruit drinks	.01	.01	.00
Cold milk drink	.02	.02	.50
Cola	.0	.0	.73
Lemonade	.0	.0	.73
Tonic soda gingerale	.01	.0	.03
Mineral water	.0	.0	.76

Elley-Irving

Orange	.02	.01	.05
Teabags	.02	.01	.00
Instant coffee	.02	.01	.00
Powdered fruit drink	.02	.01	.00
Liquid fruit drinks	.02	.01	.00
Cold milk drink	.02	.01	.00
Cola	.04	.03	.00
Lemonade	.01	.0	.46
Tonic soda gingerale	.01	.0	.16
Mineral water	.03	.02	.00

McNair CWE

Orange	.02	.0	.00
Teabags	.03	.01	.03
Instant coffee	.03	.02	.00
Powdered fruit drink	.03	.01	.02
Liquid fruit drinks	.04	.03	.00
Cold milk drink	.03	.01	.05
Cola	.03	.02	.01
Lemonade	.01	.0	.89
Tonic soda gingerale	.02	.01	.06
Mineral water	.02	.01	.11

Age Respondent

Orange	.05	.03	.00
Teabags	.05	.03	.00
Instant coffee	.08	.06	.00
Powdered fruit drink	.07	.05	.00
Liquid fruit drinks	.03	.01	.12
Cold milk drink	.06	.04	.00
Cola	.07	.05	.00
Lemonade	.03	.01	.17
Tonic soda gingerale	.02	.0	.51
Mineral water	.05	.02	.00

NZSCO CWE

Orange	.02	.01	.01
Teabags	.02	.01	.01
Instant coffee	.02	.01	.02
Powdered fruit drink	.02	.01	.01
Liquid fruit drinks	.02	.01	.03
Cold milk drink	.02	.01	.04
Cola	.03	.02	.00
Lemonade	.01	.0	.17
Tonic soda gingerale	.05	.04	.00
Mineral water	.02	.01	.10

Social Grade Respondent

Orange	.01	.0	.25
Teabags	.01	.01	.10
Instant coffee	.04	.03	.00
Powdered fruit drink	.01	.0	.42
Liquid fruit drinks	.01	.01	.11
Cold milk drink	.01	.0	.35
Cola	.02	.01	.00
Lemonade	.01	.0	.16
Tonic soda gingerale	.01	.0	.25
Mineral water	.0	.0	.86

NZSCO Respondent

Orange	.01	.01	.07
Teabags	.02	.01	.09
Instant coffee	.04	.03	.00
Powdered fruit drink	.01	.0	.16
Liquid fruit drinks	.01	.0	.37
Cold milk drink	.01	.0	.41
Cola	.03	.02	.00
Lemonade	.02	.01	.06
Tonic soda gingerale	.02	.01	.01
Mineral water	.0	.0	.95

Social Grade CWE:1

Orange	.02	.01	.06
Teabags	.02	.01	.02
Instant coffee	.03	.02	.00
Powdered fruit drink	.01	.01	.07
Liquid fruit drinks	.01	.02	.01
Cold milk drink	.01	.01	.08
Cola	.02	.02	.00
Lemonade	.01	.0	.22
Tonic soda gingerale	.0	.0	.68
Mineral water	.01	.0	.29

Income Respondent

Orange	.01	.0	.33
Teabags	.01	.01	.07
Instant coffee	.03	.02	.00
Powdered fruit drink	.01	.0	.11
Liquid fruit drinks	.01	.0	.21
Cold milk drink	.02	.01	.01
Cola	.01	.0	.23
Lemonade	.01	.0	.30
Tonic soda gingerale	.01	.0	.42
Mineral water	.01	.0	.58

Income   Household

Orange	.01	.0	.27
Teabags	.02	.01	.01
Instant coffee	.01	.0	.07
Powdered fruit drink	.01	.01	.06
Liquid fruit drinks	.02	.01	.01
Cold milk drink	.01	.0	.22
Cola	.01	.01	.01
Lemonade	.0	.0	.48
Tonic soda gingerale	.01	.01	.12
Mineral water	.0	.0	.68

Social Grade CWE:2

Orange	.02	.01	.09
Teabags	.04	.03	.07
Instant coffee	.01	.0	.00
Powdered fruit drink	.01	.0	.28
Liquid fruit drinks	.03	.02	.00
Cold milk drink	.02	.01	.05
Cola	.02	.01	.04
Lemonade	.01	.0	.59
Tonic soda gingerale	.01	.0	.52
Mineral water	.01	.0	.73

SNACKS

SAGACITY:1	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
Potato chips	.11	.10	.00
Peanuts	.04	.02	.00
Cashew nuts	.01	.0	.47
Other savoury nibbles	.03	.02	.00
Chewing gum	.13	.12	.00
Chocolate tablets	.01	.0	.38
Chocolate bars	.08	.07	.00
Box of chocolates	.01	.0	.53
Other chocolate lollies	.04	.03	.00

SAGACITY:2			
Potato chips	.12	.11	.00
Peanuts	.03	.02	.00
Cashew nuts	.02	.01	.06
Other savoury nibbles	.03	.02	.00
Chewing gum	.13	.12	.00
Chocolate tablets	.02	.01	.09
Chocolate bars	.08	.07	.00
Box of chocolates	.02	.0	.35
Other chocolate lollies	.04	.03	.00

SAGACITY:3			
Potato chips	.12	.11	.00
Peanuts	.03	.02	.00
Cashew nuts	.01	.0	.71
Other savoury nibbles	.03	.02	.00
Chewing gum	.14	.12	.00
Chocolate tablets	.01	.0	.38
Chocolate bars	.08	.07	.00
Box of chocolates	.02	.01	.18
Other chocolate lollies	.04	.03	.00

McNair Respondent

Potato chips	.08	.07	.00
Peanuts	.04	.02	.00
Cashew nuts	.02	.0	.28
Other savoury nibbles	.03	.02	.01
Chewing gum	.11	.10	.00
Chocolate tablets	.03	.02	.01
Chocolate bars	.06	.04	.00
Box of chocolates	.02	.0	.24
Other chocolate lollies	.05	.04	.00

NZ Interlaced Demographics:6

Potato chips	.01	.0	.32
Peanuts	.01	.01	.11
Cashew nuts	.01	.01	.12
Other savoury nibbles	.0	.0	.85
Chewing gum	.01	.01	.10
Chocolate tablets	.0	.0	.78
Chocolate bars	.01	.0	.24
Box of chocolates	.01	.0	.67
Other chocolate lollies	.01	.0	.11

NZ Interlaced Demographics:3

Potato chips	.01	.0	.14
Peanuts	.01	.0	.09
Cashew nuts	.01	.0	.09
Other savoury nibbles	.0	.0	.65
Chewing gum	.01	.01	.03
Chocolate tablets	.0	.0	.60
Chocolate bars	.01	.0	.16
Box of chocolates	.0	.0	.68
Other chocolate lollies	.01	.01	.01

Elley-Irving CWE

Potato chips	.02	.02	.00
Peanuts	.01	.0	.21
Cashew nuts	.01	.0	.13
Other savoury nibbles	.01	.0	.13
Chewing gum	.05	.04	.00
Chocolate tablets	.01	.0	.34
Chocolate bars	.03	.02	.00
Box of chocolates	.01	.01	.11
Other chocolate lollies	.01	.01	.07

McNair CWE

Potato chips	.04	.02	.00
Peanuts	.02	.0	.36
Cashew nuts	.01	.0	.81
Other savoury nibbles	.03	.01	.05
Chewing gum	.05	.04	.00
Chocolate tablets	.02	.0	.29
Chocolate bars	.05	.04	.00
Box of chocolates	.01	.0	.76
Other chocolate lollies	.03	.02	.01

Education Respondent

Potato chips	.0	.0	.55
Peanuts	.04	.04	.00
Cashew nuts	.03	.02	.00
Other savoury nibbles	.01	.0	.26
Chewing gum	.01	.01	.07
Chocolate tablets	.0	.0	.86
Chocolate bars	.01	.0	.36
Box of chocolates	.01	.0	.14
Other chocolate lollies	.01	.0	.17

Age Respondent

Potato chips	.12	.10	.00
Peanuts	.04	.02	.01
Cashew nuts	.03	.0	.25
Other savoury nibbles	.04	.02	.01
Chewing gum	.16	.14	.00
Chocolate tablets	.01	.0	.95
Chocolate bars	.07	.05	.00
Box of chocolates	.01	.0	.84
Other chocolate lollies	.06	.04	.00

NZSCO CWE

Potato chips	.02	.01	.01
Peanuts	.02	.01	.06
Cashew nuts	.01	.0	.82
Other savoury nibbles	.01	.0	.21
Chewing gum	.04	.03	.00
Chocolate tablets	.01	.0	.17
Chocolate bars	.02	.01	.01
Box of chocolates	.02	.01	.02
Other chocolate lollies	.01	.0	.23

Social Grade Respondent

Potato chips	.01	.01	.12
Peanuts	.01	.01	.08
Cashew nuts	.01	.0	.17
Other savoury nibbles	.0	.0	.84
Chewing gum	.02	.01	.00
Chocolate tablets	.0	.0	.85
Chocolate bars	.01	.0	.25
Box of chocolates	.01	.01	.12
Other chocolate lollies	.0	.0	.68

NZSCO Respondent

Potato chips	.01	.0	.29
Peanuts	.01	.0	.17
Cashew nuts	.01	.0	.17
Other savoury nibbles	.01	.0	.80
Chewing gum	.01	.0	.16
Chocolate tablets	.01	.0	.82
Chocolate bars	.01	.0	.61
Box of chocolates	.01	.0	.15
Other chocolate lollies	.01	.0	.77

Social Grade CWE:1

Potato chips	.0	.0	.58
Peanuts	.02	.01	.03
Cashew nuts	.0	.0	.97
Other savoury nibbles	.0	.0	.91
Chewing gum	.01	.0	.13
Chocolate tablets	.0	.0	.73
Chocolate bars	.01	.0	.40
Box of chocolates	.01	.0	.17
Other chocolate lollies	.01	.0	.11

Income Respondent

Potato chips	.03	.02	.00
Peanuts	.02	.01	.01
Cashew nuts	.01	.0	.23
Other savoury nibbles	.01	.0	.26
Chewing gum	.02	.02	.00
Chocolate tablets	.0	.0	.97
Chocolate bars	.01	.0	.31
Box of chocolates	.0	.0	.70
Other chocolate lollies	.0	.0	.69

Income Household

Potato chips	.01	.0	.09
Peanuts	.02	.0	.18
Cashew nuts	.01	.01	.02
Other savoury nibbles	.01	.0	.35
Chewing gum	.01	.0	.04
Chocolate tablets	.0	.01	.43
Chocolate bars	.0	.0	.49
Box of chocolates	.0	.0	.60
Other chocolate lollies	.0	.0	.81

Social Grade CWE:2

Potato chips	.02	.0	.18
Peanuts	.02	.01	.06
Cashew nuts	.01	.0	.67
Other savoury nibbles	.01	.0	.87
Chewing gum	.02	.01	.07
Chocolate tablets	.01	.0	.41
Chocolate bars	.02	.0	.21
Box of chocolates	.01	.0	.49
Other chocolate lollies	.02	.01	.14

DOMESTIC APPLIANCES

SAGACITY:1	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
Automatic washing machine	.02	.01	.01
Clothes dryer	.03	.02	.00
Combo.fridge deep freeze	.02	.0	.10
Deep freeze	.02	.01	.06
Refridgerator	.02	.01	.10
Electric stove	.03	.01	.01
Gas stove	.01	.0	.82
Rangehood	.03	.01	.02
Microwave oven	.02	.01	.05
Automatic dishwasher	.02	.0	.24

SAGACITY:2			
Automatic washing machine	.03	.01	.00
Clothes dryer	.03	.02	.00
Combo.fridge deep freeze	.02	.0	.06
Deep freeze	.02	.0	.11
Refridgerator	.03	.01	.01
Electric stove	.03	.01	.02
Gas stove	.0	.0	.97
Rangehood	.03	.02	.01
Microwave oven	.04	.03	.00
Automatic dishwasher	.02	.0	.20

SAGACITY:3			
Automatic washing machine	.02	.0	.04
Clothes dryer	.03	.01	.01
Combo.fridge deep freeze	.02	.0	.07
Deep freeze	.02	.0	.16
Refridgerator	.02	.01	.03
Electric stove	.02	.01	.03
Gas stove	.0	.0	.99
Rangehood	.02	.0	.22
Microwave oven	.06	.04	.00
Automatic dishwasher	.02	.01	.04

McNair Respondent			
Automatic washing machine	.02	.0	.06
Clothes dryer	.02	.0	.13
Combo.fridge deep freeze	.02	.0	.04
Deep freeze	.01	.0	.35
Refridgerator	.02	.0	.28
Electric stove	.01	.0	.40
Gas stove	.02	.0	.30
Rangehood	.02	.01	.07
Microwave oven	.02	.01	.09
Automatic dishwasher	.06	.04	.00

NZ Interlaced Demographics:6

Automatic washing machine	.0	.0	.54
Clothes dryer	.01	.0	.38
Combo.fridge deep freeze	.0	.0	.95
Deep freeze	.01	.0	.68
Refridgerator	.01	.0	.63
Electric stove	.01	.0	.21
Gas stove	.0	.0	.83
Rangehood	.0	.0	.74
Microwave oven	.0	.0	.67
Automatic dishwasher	.02	.01	.02

NZ Interlaced Demographics:3

Automatic washing machine	.0	.0	.27
Clothes dryer	.0	.0	.34
Combo.fridge deep freeze	.0	.0	.90
Deep freeze	.0	.0	.86
Refridgerator	.0	.0	.70
Electric stove	.0	.0	.81
Gas stove	.0	.0	.93
Rangehood	.0	.0	.50
Microwave oven	.0	.0	.38
Automatic dishwasher	.0	.0	.50

Elley-Irving CWE

Automatic washing machine	.0	.0	.98
Clothes dryer	.01	.0	.42
Combo.fridge deep freeze	.01	.01	.14
Deep freeze	.0	.0	.78
Refridgerator	.02	.01	.01
Electric stove	.0	.0	.75
Gas stove	.01	.0	.45
Rangehood	.01	.0	.59
Microwave oven	.02	.01	.08
Automatic dishwasher	.02	.01	.08

McNair CWE

Automatic washing machine	.01	.0	.74
Clothes dryer	.02	.0	.38
Combo.fridge deep freeze	.02	.01	.23
Deep freeze	.01	.0	.76
Refridgerator	.02	.0	.53
Electric stove	.01	.0	.72
Gas stove	.03	.02	.03
Rangehood	.02	.0	.48
Microwave oven	.02	.0	.52
Automatic dishwasher	.05	.04	.00

Education Respondent

Automatic washing machine	.0	.0	.07
Clothes dryer	.01	.01	.01
Combo.fridge deep freeze	.01	.0	.11
Deep freeze	.0	.0	.60
Refridgerator	.0	.0	.38
Electric stove	.0	.0	.48
Gas stove	.01	.0	.36
Rangehood	.01	.0	.20
Microwave oven	.01	.0	.13
Automatic dishwasher	.0	.0	.49

Age Respondent

Automatic washing machine	.02	.01	.08
Clothes dryer	.02	.0	.26
Combo.fridge deep freeze	.03	.02	.01
Deep freeze	.01	.0	.88
Refridgerator	.02	.0	.50
Electric stove	.02	.0	.28
Gas stove	.02	.01	.35
Rangehood	.01	.0	.87
Microwave oven	.03	.01	.18
Automatic dishwasher	.02	.0	.60

NZSCO CWE

Automatic washing machine	.01	.0	.22
Clothes dryer	.01	.0	.25
Combo.fridge deep freeze	.02	.01	.04
Deep freeze	.02	.01	.13
Refridgerator	.03	.02	.00
Electric stove	.01	.0	.46
Gas stove	.01	.0	.70
Rangehood	.01	.0	.22
Microwave oven	.02	.01	.03
Automatic dishwasher	.02	.01	.07

Social Grade Respondent

Automatic washing machine	.01	.0	.27
Clothes dryer	.01	.0	.36
Combo.fridge deep freeze	.02	.02	.00
Deep freeze	.0	.0	.77
Refridgerator	.01	.01	.09
Electric stove	.0	.0	.93
Gas stove	.0	.0	.72
Rangehood	.01	.0	.37
Microwave oven	.01	.0	.18
Automatic dishwasher	.04	.03	.00

NZSCO Respondent

Automatic washing machine	.01	.0	.27
Clothes dryer	.01	.0	.15
Combo.fridge deep freeze	.02	.01	.01
Deep freeze	.0	.0	.85
Refridgerator	.01	.0	.15
Electric stove	.01	.0	.77
Gas stove	.01	.0	.57
Rangehood	.01	.0	.82
Microwave oven	.04	.03	.00
Automatic dishwasher	.03	.02	.00

Social Grade CWE:1

Automatic washing machine	.0	.0	.73
Clothes dryer	.01	.0	.44
Combo.fridge deep freeze	.02	.01	.04
Deep freeze	.0	.0	.85
Refridgerator	.01	.0	.55
Electric stove	.01	.0	.56
Gas stove	.0	.0	.84
Rangehood	.0	.0	.63
Microwave oven	.01	.0	.47
Automatic dishwasher	.01	.0	.15

Income Respondent

Automatic washing machine	.01	.0	.04
Clothes dryer	.01	.0	.42
Combo.fridge deep freeze	.02	.02	.00
Deep freeze	.01	.01	.05
Refridgerator	.01	.0	.61
Electric stove	.01	.0	.16
Gas stove	.01	.0	.71
Rangehood	.01	.01	.08
Microwave oven	.02	.01	.00
Automatic dishwasher	.02	.02	.00

Income Household

Automatic washing machine	.01	.0	.39
Clothes dryer	.02	.02	.00
Combo.fridge deep freeze	.01	.0	.55
Deep freeze	.0	.0	.79
Refridgerator	.01	.0	.20
Electric stove	.0	.0	.63
Gas stove	.0	.0	.60
Rangehood	.01	.0	.36
Microwave oven	.02	.01	.02
Automatic dishwasher	.02	.0	.14

Social Grade CWE:2

Automatic washing machine	.01	.0	.93
Clothes dryer	.01	.0	.83
Combo.fridge deep freeze	.02	.01	.15
Deep freeze	.0	.0	.99
Refridgerator	.01	.0	.82
Electric stove	.01	.0	.64
Gas stove	.0	.0	.99
Rangehood	.01	.0	.65
Microwave oven	.01	.0	.88
Automatic dishwasher	.01	.0	.41

GARDEN EQUIPMENT

SAGACITY:1	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
Electric motor mower	.02	.01	.09
Other motor mower	.03	.01	.00
Chainsaw	.03	.01	.01
Electric drill	.02	.0	.09
Skillsaw	.02	.0	.26
Electric hedge clippers	.02	.0	.24
Rotary hoe	.02	.0	.18
Weedeater line trimmer	.03	.01	.01
Wheelbarrow	.02	.01	.05
Workmate workbench	.02	.0	.20

SAGACITY:2			
Electric motor mower	.02	.0	.14
Other motor mower	.04	.02	.00
Chainsaw	.04	.02	.00
Electric drill	.02	.0	.12
Skillsaw	.03	.01	.02
Electric hedge clippers	.02	.0	.24
Rotary hoe	.02	.0	.30
Weedeater line trimmer	.04	.03	.00
Wheelbarrow	.02	.01	.06
Workmate workbench	.02	.01	.07

SAGACITY:3			
Electric motor mower	.02	.0	.09
Other motor mower	.04	.02	.00
Chainsaw	.05	.04	.00
Electric drill	.02	.0	.07
Skillsaw	.04	.02	.00
Electric hedge clippers	.02	.0	.14
Rotary hoe	.02	.01	.06
Weedeater line trimmer	.03	.02	.00
Wheelbarrow	.02	.01	.08
Workmate workbench	.02	.01	.09

McNair Respondent			
Electric motor mower	.02	.0	.28
Other motor mower	.03	.01	.00
Chainsaw	.03	.01	.01
Electric drill	.03	.02	.00
Skillsaw	.02	.0	.12
Electric hedge clippers	.01	.0	.58
Rotary hoe	.04	.03	.00
Weedeater line trimmer	.02	.0	.10
Wheelbarrow	.04	.02	.00
Workmate workbench	.02	.0	.19

NZ Interlaced Demographics:6

Electric motor mower	.0	.0	.99
Other motor mower	.0	.0	.90
Chainsaw	.01	.01	.07
Electric drill	.01	.0	.12
Skillsaw	.02	.01	.02
Electric hedge clippers	.0	.0	.97
Rotary hoe	.01	.01	.15
Weedeater line trimmer	.01	.0	.26
Wheelbarrow	.0	.0	.57
Workmate workbench	.03	.02	.00

NZ Interlaced Demographics:3

Electric motor mower	.0	.0	.24
Other motor mower	.0	.0	.50
Chainsaw	.01	.01	.96
Electric drill	.0	.0	.09
Skillsaw	.0	.0	.11
Electric hedge clippers	.0	.0	.96
Rotary hoe	.01	.01	.08
Weedeater line trimmer	.01	.0	.11
Wheelbarrow	.0	.0	.52
Workmate workbench	.01	.01	.02

Elley-Irving CWE

Electric motor mower	.01	.0	.28
Other motor mower	.01	.0	.60
Chainsaw	.01	.01	.15
Electric drill	.01	.0	.33
Skillsaw	.0	.0	.75
Electric hedge clippers	.01	.0	.21
Rotary hoe	.01	.0	.23
Weedeater line trimmer	.01	.01	.13
Wheelbarrow	.01	.01	.12
Workmate workbench	.01	.0	.36

McNair CWE

Electric motor mower	.01	.0	.74
Other motor mower	.02	.0	.54
Chainsaw	.02	.0	.38
Electric drill	.01	.0	.81
Skillsaw	.01	.0	.76
Electric hedge clippers	.02	.0	.41
Rotary hoe	.02	.01	.17
Weedeater line trimmer	.02	.0	.35
Wheelbarrow	.02	.0	.53
Workmate workbench	.01	.0	.69

Education Respondent

Electric motor mower	.0	.0	.37
Other motor mower	.0	.0	.22
Chainsaw	.02	.01	.00
Electric drill	.0	.0	.16
Skillsaw	.0	.0	.74
Electric hedge clippers	.0	.0	.58
Rotary hoe	.0	.0	.47
Weedeater line trimmer	.01	.0	.09
Wheelbarrow	.01	.01	.02
Workmate workbench	.02	.02	.00

Age Respondent

Electric motor mower	.02	.0	.56
Other motor mower	.03	.01	.01
Chainsaw	.04	.02	.00
Electric drill	.04	.02	.01
Skillsaw	.03	.01	.13
Electric hedge clippers	.03	.01	.20
Rotary hoe	.03	.01	.07
Weedeater line trimmer	.03	.01	.07
Wheelbarrow	.02	.0	.26
Workmate workbench	.02	.0	.40

NZSCO CWE

Electric motor mower	.01	.0	.44
Other motor mower	.0	.0	.97
Chainsaw	.02	.01	.12
Electric drill	.01	.0	.28
Skillsaw	.01	.0	.44
Electric hedge clippers	.01	.0	.43
Rotary hoe	.01	.0	.33
Weedeater line trimmer	.01	.0	.43
Wheelbarrow	.02	.01	.15
Workmate workbench	.01	.0	.77

Social Grade Respondent

Electric motor mower	.01	.0	.52
Other motor mower	.02	.01	.00
Chainsaw	.02	.01	.00
Electric drill	.02	.01	.00
Skillsaw	.01	.0	.06
Electric hedge clippers	.0	.0	.74
Rotary hoe	.02	.01	.05
Weedeater line trimmer	.01	.0	.12
Wheelbarrow	.03	.02	.00
Workmate workbench	.01	.0	.43

NZSCO Respondent

Electric motor mower	.01	.0	.35
Other motor mower	.02	.0	.05
Chainsaw	.04	.03	.00
Electric drill	.02	.01	.02
Skillsaw	.01	.0	.14
Electric hedge clippers	.02	.01	.13
Rotary hoe	.01	.0	.24
Weedeater line trimmer	.01	.0	.57
Wheelbarrow	.02	.01	.01
Workmate workbench	.01	.0	.15

Social Grade CWE: 1

Electric motor mower	.0	.0	.85
Other motor mower	.01	.0	.49
Chainsaw	.01	.0	.20
Electric drill	.01	.0	.36
Skillsaw	.0	.0	.70
Electric hedge clippers	.01	.0	.32
Rotary hoe	.0	.0	.81
Weedeater line trimmer	.0	.0	.67
Wheelbarrow	.01	.0	.79
Workmate workbench	.01	.0	.45

Income Respondent

Electric motor mower	.0	.0	.62
Other motor mower	.03	.02	.00
Chainsaw	.05	.04	.00
Electric drill	.03	.02	.00
Skillsaw	.04	.03	.00
Electric hedge clippers	.01	.01	.06
Rotary hoe	.01	.01	.06
Weedeater line trimmer	.01	.0	.06
Wheelbarrow	.02	.02	.00
Workmate workbench	.02	.02	.00

Income Household

Electric motor mower	.01	.0	.34
Other motor mower	.0	.0	.56
Chainsaw	.02	.01	.00
Electric drill	.01	.01	.13
Skillsaw	.01	.01	.04
Electric hedge clippers	.0	.0	.60
Rotary hoe	.01	.0	.37
Weedeater line trimmer	.01	.01	.06
Wheelbarrow	.01	.0	.22
Workmate workbench	.01	.01	.05

Social Grade CWE:2

Electric motor mower	.03	.0	.99
Other motor mower	.01	.0	.75
Chainsaw	.01	.0	.56
Electric drill	.01	.0	.70
Skillsaw	.0	.0	.95
Electric hedge clippers	.01	.0	.66
Rotary hoe	.0	.0	.99
Weedeater line trimmer	.01	.0	.74
Wheelbarrow	.01	.0	.46
Workmate workbench	.01	.0	.86

HOUSEHOLD RENOVATIONS

SAGACITY: 1	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
Extra rooms	.03	.01	.03
Patios paths bar b ques	.04	.02	.00
Spa pool hot tub	.01	.0	.66
Fencing	.03	.02	.01
Replacing window frames	.02	.0	.22
New garage shed	.03	.02	.01
Kitchen renovation	.02	.01	.14
Solar water heating	.02	.0	.39
Bathroom renovation	.02	.01	.10
Re roofing	.03	.01	.07

SAGACITY: 2			
Extra rooms	.02	.01	.11
Patios paths bar b ques	.02	.01	.08
Spa pool hot tub	.02	.0	.23
Fencing	.04	.02	.00
Replacing window frames	.02	.0	.42
New garage shed	.02	.01	.13
Kitchen renovation	.02	.0	.23
Solar water heating	.01	.0	.58
Bathroom renovation	.01	.0	.51
Re roofing	.01	.0	.55

SAGACITY: 3			
Extra rooms	.02	.0	.26
Patios paths bar b ques	.02	.01	.13
Spa pool hot tub	.01	.0	.62
Fencing	.03	.02	.01
Replacing window frames	.02	.0	.23
New garage shed	.02	.01	.14
Kitchen renovation	.02	.01	.13
Solar water heating	.01	.0	.74
Bathroom renovation	.02	.0	.44
Re roofing	.02	.01	.16

McNair Respondent			
Extra rooms	.02	.01	.20
Patios paths bar b ques	.03	.01	.04
Spa pool hot tub	.01	.0	.93
Fencing	.04	.02	.01
Replacing window frames	.02	.0	.31
New garage shed	.02	.01	.13
Kitchen renovation	.03	.01	.06
Solar water heating	.02	.0	.38
Bathroom renovation	.02	.01	.14
Re roofing	.01	.0	.56

NZ Interlaced Demographics:6

Extra rooms	.0	.0	.77
Patios paths bar b ques	.01	.0	.21
Spa pool hot tub	.01	.0	.32
Fencing	.0	.0	.92
Replacing window frames	.0	.0	.69
New garage shed	.01	.0	.58
Kitchen renovation	.02	.01	.04
Solar water heating	.0	.0	.77
Bathroom renovation	.01	.0	.21
Re roofing	.01	.0	.14

NZ Interlaced Demographics:3

Extra rooms	.0	.0	.36
Patios paths bar b ques	.0	.0	.21
Spa pool hot tub	.0	.0	.30
Fencing	.0	.0	.52
Replacing window frames	.0	.0	.91
New garage shed	.0	.0	.94
Kitchen renovation	.0	.0	.64
Solar water heating	.0	.0	.54
Bathroom renovation	.0	.0	.42
Re roofing	.0	.0	.29

Elley-Irving CWE

Extra rooms	.01	.0	.35
Patios paths bar b ques	.01	.0	.43
Spa pool hot tub	.01	.01	.13
Fencing	.01	.0	.34
Replacing window frames	.0	.0	.75
New garage shed	.01	.01	.13
Kitchen renovation	.02	.01	.01
Solar water heating	.01	.0	.60
Bathroom renovation	.01	.0	.28
Re roofing	.0	.0	.87

McNair CWE

Extra rooms	.02	.0	.26
Patios paths bar b ques	.02	.01	.20
Spa pool hot tub	.02	.01	.18
Fencing	.02	.0	.28
Replacing window frames	.02	.0	.50
New garage shed	.02	.0	.21
Kitchen renovation	.04	.02	.00
Solar water heating	.02	.0	.42
Bathroom renovation	.02	.0	.36
Re roofing	.01	.0	.80

Education Respondent

Extra rooms	.0	.0	.55
Patios paths bar b ques	.01	.01	.11
Spa pool hot tub	.0	.0	.76
Fencing	.0	.0	.59
Replacing window frames	.0	.0	.91
New garage shed	.01	.0	.30
Kitchen renovation	.01	.0	.16
Solar water heating	.0	.0	.91
Bathroom renovation	.0	.0	.60
Re roofing	.0	.0	.61

Age Respondent

Extra rooms	.02	.0	.44
Patios paths bar b ques	.03	.01	.08
Spa pool hot tub	.01	.0	.75
Fencing	.03	.01	.13
Replacing window frames	.02	.0	.45
New garage shed	.03	.01	.05
Kitchen renovation	.05	.03	.00
Solar water heating	.02	.0	.60
Bathroom renovation	.01	.0	.84
Re roofing	.02	.0	.53

NZSCO CWE

Extra rooms	.01	.0	.79
Patios paths bar b ques	.02	.01	.14
Spa pool hot tub	.01	.0	.22
Fencing	.02	.01	.06
Replacing window frames	.0	.0	.95
New garage shed	.03	.02	.00
Kitchen renovation	.03	.02	.00
Solar water heating	.02	.01	.09
Bathroom renovation	.01	.0	.55
Re roofing	.01	.0	.71

Social Grade Respondent

Extra rooms	.02	.01	.05
Patios paths bar b ques	.01	.0	.21
Spa pool hot tub	.0	.0	.85
Fencing	.01	.0	.19
Replacing window frames	.01	.0	.56
New garage shed	.01	.0	.18
Kitchen renovation	.01	.0	.61
Solar water heating	.01	.0	.32
Bathroom renovation	.01	.0	.19
Re roofing	.0	.0	.75

NZSCO Respondent

Extra rooms	.02	.0	.19
Patios paths bar b ques	.01	.0	.35
Spa pool hot tub	.0	.0	.96
Fencing	.02	.01	.05
Replacing window frames	.01	.0	.47
New garage shed	.02	.01	.05
Kitchen renovation	.01	.0	.40
Solar water heating	.02	.01	.62
Bathroom renovation	.01	.0	.78
Re roofing	.01	.0	.61

Social Grade CWE: 1

Extra rooms	.01	.0	.42
Patios paths bar b ques	.02	.01	.03
Spa pool hot tub	.01	.0	.52
Fencing	.01	.01	.06
Replacing window frames	.01	.0	.37
New garage shed	.01	.0	.27
Kitchen renovation	.01	.0	.39
Solar water heating	.01	.0	.53
Bathroom renovation	.01	.0	.56
Re roofing	.01	.0	.32

Income Respondent

Extra rooms	.01	.0	.42
Patios paths bar b ques	.01	.0	.20
Spa pool hot tub	.0	.0	.74
Fencing	.01	.0	.55
Replacing window frames	.01	.01	.11
New garage shed	.01	.0	.43
Kitchen renovation	.01	.0	.27
Solar water heating	.01	.0	.21
Bathroom renovation	.01	.0	.48
Re roofing	.01	.0	.59

Income Household

Extra rooms	.0	.0	.74
Patios paths bar b ques	.01	.01	.04
Spa pool hot tub	.01	.0	.22
Fencing	.0	.0	.74
Replacing window frames	.0	.0	.95
New garage shed	.01	.01	.06
Kitchen renovation	.01	.0	.26
Solar water heating	.0	.0	.62
Bathroom renovation	.01	.0	.25
Re roofing	.0	.0	.63

Social Grade CWE:2

Extra rooms	.01	.0	.84
Patios paths bar b ques	.02	.0	.19
Spa pool hot tub	.01	.0	.90
Fencing	.02	.0	.19
Replacing window frames	.01	.0	.69
New garage shed	.01	.0	.64
Kitchen renovation	.01	.0	.77
Solar water heating	.01	.0	.90
Bathroom renovation	.01	.0	.90
Re roofing	.01	.0	.75

INTERIOR DECORATING

SAGACITY:1	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
Wall to wall carpet	.02	.0	.26
Carpet squares	.01	.0	.49
Wallpaper	.03	.02	.02
Vinyl lino flooring	.03	.02	.01
Curtains drapes	.05	.04	.00
Lounge furniture	.01	.0	.57
Dining furniture	.03	.01	.03
Bedroom furniture	.02	.01	.08
Kitset furniture	.02	.0	.34

SAGACITY:2			
Wall to wall carpet	.01	.0	.63
Carpet squares	.01	.0	.68
Wallpaper	.02	.01	.14
Vinyl lino flooring	.03	.01	.07
Curtains drapes	.04	.02	.00
Lounge furniture	.01	.0	.50
Dining furniture	.03	.02	.02
Bedroom furniture	.02	.01	.12
Kitset furniture	.02	.0	.44

SAGACITY:3			
Wall to wall carpet	.02	.0	.34
Carpet squares	.01	.0	.65
Wallpaper	.02	.0	.32
Vinyl lino flooring	.02	.01	.18
Curtains drapes	.03	.01	.03
Lounge furniture	.01	.0	.80
Dining furniture	.03	.01	.04
Bedroom furniture	.03	.01	.06
Kitset furniture	.02	.0	.37

McNair Respondent			
Wall to wall carpet	.02	.01	.14
Carpet squares	.01	.0	.82
Wallpaper	.02	.0	.39
Vinyl lino flooring	.02	.0	.48
Curtains drapes	.03	.01	.06
Lounge furniture	.03	.02	.02
Dining furniture	.02	.0	.33
Bedroom furniture	.04	.02	.00
Kitset furniture	.03	.01	.04

NZ Interlaced Demographics:6

Wall to wall carpet	.02	.01	.01
Carpet squares	.01	.0	.13
Wallpaper	.01	.0	.27
Vinyl lino flooring	.02	.01	.04
Curtains drapes	.03	.02	.00
Lounge furniture	.02	.01	.03
Dining furniture	.02	.01	.04
Bedroom furniture	.01	.0	.19
Kitset furniture	.0	.0	.73

NZ Interlaced Demographics:3

Wall to wall carpet	.01	.01	.00
Carpet squares	.0	.0	.39
Wallpaper	.0	.0	.50
Vinyl lino flooring	.01	.0	.08
Curtains drapes	.01	.01	.01
Lounge furniture	.0	.0	.31
Dining furniture	.0	.0	.21
Bedroom furniture	.01	.01	.06
Kitset furniture	.0	.0	.40

Elley-Irving CWE

Wall to wall carpet	.02	.01	.07
Carpet squares	.02	.01	.02
Wallpaper	.0	.0	.90
Vinyl lino flooring	.02	.01	.02
Curtains drapes	.02	.02	.01
Lounge furniture	.01	.0	.50
Dining furniture	.01	.0	.42
Bedroom furniture	.02	.01	.06
Kitset furniture	.01	.0	.48

McNair CWE

Wall to wall carpet	.02	.0	.22
Carpet squares	.01	.0	.66
Wallpaper	.01	.0	.91
Vinyl lino flooring	.02	.0	.37
Curtains drapes	.03	.01	.04
Lounge furniture	.02	.0	.38
Dining furniture	.02	.01	.13
Bedroom furniture	.02	.0	.38
Kitset furniture	.02	.0	.25

Education Respondent

Wall to wall carpet	.01	.0	.12
Carpet squares	.0	.0	.48
Wallpaper	.01	.0	.32
Vinyl lino flooring	.0	.0	.89
Curtains drapes	.01	.01	.09
Lounge furniture	.0	.0	.84
Dining furniture	.0	.0	.83
Bedroom furniture	.01	.01	.08
Kitset furniture	.01	.0	.40

Age Respondent

Wall to wall carpet	.02	.0	.33
Carpet squares	.03	.01	.07
Wallpaper	.03	.01	.05
Vinyl lino flooring	.03	.01	.13
Curtains drapes	.03	.02	.02
Lounge furniture	.01	.0	.76
Dining furniture	.03	.01	.09
Bedroom furniture	.05	.03	.00
Kitset furniture	.03	.01	.01

NZSCO CWE

Wall to wall carpet	.03	.02	.01
Carpet squares	.01	.0	.49
Wallpaper	.01	.0	.59
Vinyl lino flooring	.02	.01	.03
Curtains drapes	.03	.02	.01
Lounge furniture	.02	.01	.09
Dining furniture	.02	.01	.05
Bedroom furniture	.02	.01	.06
Kitset furniture	.02	.0	.53

Social Grade Respondent

Wall to wall carpet	.01	.0	.27
Carpet squares	.0	.0	.78
Wallpaper	.01	.0	.27
Vinyl lino flooring	.01	.0	.46
Curtains drapes	.02	.02	.01
Lounge furniture	.02	.01	.04
Dining furniture	.01	.01	.12
Bedroom furniture	.03	.02	.00
Kitset furniture	.01	.0	.46

NZSCO Respondent

Wall to wall carpet	.01	.0	.64
Carpet squares	.01	.0	.85
Wallpaper	.02	.01	.03
Vinyl lino flooring	.01	.0	.43
Curtains drapes	.03	.02	.01
Lounge furniture	.04	.03	.00
Dining furniture	.01	.0	.63
Bedroom furniture	.03	.02	.00
Kitset furniture	.01	.0	.35

Social Grade CWE:1

Wall to wall carpet	.01	.0	.55
Carpet squares	.01	.01	.12
Wallpaper	.0	.0	.78
Vinyl lino flooring	.0	.0	.83
Curtains drapes	.02	.01	.03
Lounge furniture	.01	.0	.30
Dining furniture	.0	.0	.70
Bedroom furniture	.01	.0	.36
Kitset furniture	.01	.0	.55

Income Respondent

Wall to wall carpet	.03	.02	.00
Carpet squares	.02	.01	.05
Wallpaper	.01	.0	.16
Vinyl lino flooring	.01	.01	.12
Curtains drapes	.02	.0	.06
Lounge furniture	.01	.01	.24
Dining furniture	.0	.0	.97
Bedroom furniture	.02	.01	.02
Kitset furniture	.02	.01	.08

Income Household

Wall to wall carpet	.02	.02	.00
Carpet squares	.01	.0	.38
Wallpaper	.01	.01	.10
Vinyl lino flooring	.02	.02	.00
Curtains drapes	.02	.02	.00
Lounge furniture	.01	.0	.21
Dining furniture	.01	.01	.09
Bedroom furniture	.01	.01	.04
Kitset furniture	.01	.0	.17

Social Grade CWE:2

Wall to wall carpet	.01	.0	.90
Carpet squares	.01	.0	.46
Wallpaper	.0	.0	.95
Vinyl lino flooring	.01	.0	.80
Curtains drapes	.02	.01	.07
Lounge furniture	.01	.0	.64
Dining furniture	.0	.0	.94
Bedroom furniture	.01	.0	.75
Kitset furniture	.01	.0	.58

ENTERTAINMENT

SAGACITY:1	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
Reading books	.02	.01	.08
Gardening	.10	.10	.00
Motor sports	.08	.07	.00
Music	.01	.0	.87
Pets	.02	.01	.13
Horse racing	.03	.01	.03
Church	.02	.0	.32
Eating at restaurants	.03	.01	.03
Live theatre etc	.06	.04	.00
Rock concerts	.15	.14	.00
Antiques	.02	.01	.09
Charities	.06	.05	.00

SAGACITY:2

	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
Reading books	.02	.01	.15
Gardening	.10	.09	.00
Motor sports	.08	.07	.00
Music	.01	.0	.67
Pets	.03	.01	.04
Horse racing	.03	.01	.03
Church	.02	.0	.22
Eating at restaurants	.02	.01	.10
Live theatre etc	.07	.05	.00
Rock concerts	.15	.14	.00
Antiques	.03	.02	.00
Charities	.06	.05	.00

SAGACITY:3

	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
Reading books	.02	.01	.12
Gardening	.10	.09	.00
Motor sports	.08	.07	.00
Music	.01	.0	.89
Pets	.02	.01	.13
Horse racing	.03	.02	.01
Church	.02	.0	.20
Eating at restaurants	.01	.0	.42
Live theatre etc	.05	.04	.00
Rock concerts	.15	.14	.00
Antiques	.03	.01	.03
Charities	.06	.05	.00

McNair Respondent

Reading books	.02	.01	.10
Gardening	.09	.08	.00
Motor sports	.09	.08	.00
Music	.04	.02	.00
Pets	.03	.02	.02
Horse racing	.04	.03	.00
Church	.02	.0	.44
Eating at restaurants	.02	.01	.07
Live theatre etc	.02	.01	.10
Rock concerts	.10	.09	.00
Antiques	.03	.02	.01
Charities	.08	.03	.00

NZ Interlaced Demographics

Reading books	.02	.01	.02
Gardening	.01	.0	.22
Motor sports	.0	.0	.96
Music	.01	.01	.67
Pets	.01	.0	.40
Horse racing	.01	.0	.53
Church	.02	.01	.02
Eating at restaurants	.05	.04	.00
Live theatre etc	.04	.04	.00
Rock concerts	.01	.0	.36
Antiques	.01	.0	.29
Charities	.01	.01	.12

NZ Interlaced Demographics:3

Reading books	.01	.0	.07
Gardening	.0	.0	.28
Motor sports	.0	.0	.97
Music	.0	.0	.35
Pets	.0	.0	.94
Horse racing	.0	.0	.35
Church	.02	.01	.00
Eating at restaurants	.02	.02	.00
Live theatre etc	.02	.02	.00
Rock concerts	.0	.0	.48
Antiques	.0	.0	.88
Charities	.01	.0	.22

Elley-Irving CWE

Reading books	.01	.0	.20
Gardening	.02	.01	.03
Motor sports	.01	.01	.09
Music	.02	.01	.01
Pets	.01	.0	.24
Horse racing	.01	.0	.18
Church	.02	.01	.05
Eating at restaurants	.02	.01	.03
Live theatre etc	.04	.04	.00
Rock concerts	.03	.03	.00
Antiques	.01	.01	.07
Charities	.04	.03	.00

McNair CWE

Reading books	.02	.0	.42
Gardening	.03	.02	.01
Motor sports	.04	.02	.01
Music	.02	.0	.29
Pets	.02	.0	.46
Horse racing	.02	.0	.25
Church	.03	.01	.04
Eating at restaurants	.02	.0	.38
Live theatre etc	.04	.03	.00
Rock concerts	.05	.04	.00
Antiques	.01	.0	.55
Charities	.04	.02	.00

Education Respondent

Reading books	.01	.0	.12
Gardening	.01	.0	.11
Motor sports	.01	.01	.08
Music	.01	.0	.31
Pets	.0	.0	.53
Horse racing	.0	.0	.52
Church	.01	.0	.22
Eating at restaurants	.02	.02	.00
Live theatre etc	.06	.06	.00
Rock concerts	.0	.0	.76
Antiques	.02	.01	.01
Charities	.02	.01	.00

Age Respondent

Reading books	.02	.0	.70
Gardening	.10	.08	.00
Motor sports	.10	.08	.00
Music	.02	.0	.69
Pets	.04	.01	.04
Horse racing	.03	.01	.11
Church	.05	.03	.00
Eating at restaurants	.04	.02	.03
Live theatre etc	.05	.03	.04
Rock concerts	.18	.16	.00
Antiques	.03	.01	.16
Charities	.07	.05	.00

NZSCO CWE

Reading books	.01	.0	.29
Gardening	.02	.0	.02
Motor sports	.01	.0	.52
Music	.02	.01	.08
Pets	.02	.01	.06
Horse racing	.01	.0	.35
Church	.02	.01	.02
Eating at restaurants	.02	.01	.04
Live theatre etc	.02	.01	.07
Rock concerts	.04	.03	.00
Antiques	.01	.0	.78
Charities	.03	.02	.00

Social Grade Respondent

Reading books	.01	.0	.18
Gardening	.0	.0	.93
Motor sports	.01	.0	.13
Music	.01	.0	.43
Pets	.01	.0	.63
Horse racing	.02	.01	.01
Church	.02	.01	.03
Eating at restaurants	.01	.0	.19
Live theatre etc	.02	.01	.05
Rock concerts	.01	.0	.21
Antiques	.01	.0	.19
Charities	.01	.01	.11

NZSCO Respondent

Reading books	.01	.0	.16
Gardening	.01	.0	.79
Motor sports	.01	.0	.15
Music	.01	.0	.17
Pets	.01	.0	.46
Horse racing	.03	.02	.00
Church	.02	.01	.02
Eating at restaurants	.02	.01	.06
Live theatre etc	.02	.01	.02
Rock concerts	.01	.0	.75
Antiques	.02	.01	.05
Charities	.02	.01	.02

Social Grade CWE: 1

Reading books	.01	.0	.12
Gardening	.0	.0	.60
Motor sports	.0	.0	.81
Music	.01	.01	.08
Pets	.0	.0	.71
Horse racing	.01	.01	.10
Church	.02	.01	.03
Eating at restaurants	.02	.01	.00
Live theatre etc	.02	.02	.00
Rock concerts	.02	.01	.02
Antiques	.01	.0	.20
Charities	.01	.0	.18

Income Respondent

Reading books	.0	.0	.87
Gardening	.02	.01	.01
Motor sports	.01	.0	.21
Music	.01	.01	.09
Pets	.02	.01	.01
Horse racing	.02	.01	.05
Church	.01	.0	.36
Eating at restaurants	.01	.01	.09
Live theatre etc	.02	.01	.03
Rock concerts	.02	.01	.01
Antiques	.01	.0	.33
Charities	.01	.0	.21

Income Household

Reading books	.01	.0	.27
Gardening	.01	.01	.05
Motor sports	.01	.0	.13
Music	.01	.0	.09
Pets	.01	.0	.12
Horse racing	.01	.0	.26
Church	.01	.0	.15
Eating at restaurants	.02	.01	.00
Live theatre etc	.02	.01	.04
Rock concerts	.01	.01	.03
Antiques	.0	.0	.87
Charities	.02	.02	.00

Social Grade CWE:2

Reading books	.01	.0	.22
Gardening	.01	.0	.64
Motor sports	.01	.0	.69
Music	.02	.01	.08
Pets	.01	.0	.72
Horse racing	.02	.0	.21
Church	.02	.01	.08
Eating at restaurants	.02	.01	.04
Live theatre etc	.03	.02	.00
Rock concerts	.02	.01	.08
Antiques	.02	.01	.12
Charities	.01	.0	.40

SPORT

SAGACITY:1	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
Rugby	.02	.01	.00
Fitness	.04	.03	.03
Running jogging	.11	.10	.00
Snow skiing	.04	.03	.00
Soccer	.03	.02	.01
Cricket	.02	.01	.14
Tennis	.04	.03	.00
Bowls	.09	.08	.00

SAGACITY:2			
Rugby	.02	.01	.13
Fitness	.05	.03	.00
Running jogging	.11	.10	.00
Snow skiing	.04	.03	.00
Soccer	.03	.02	.01
Cricket	.02	.01	.09
Tennis	.04	.02	.00
Bowls	.08	.07	.00

SAGACITY:3			
Rugby	.02	.01	.12
Fitness	.04	.03	.00
Running jogging	.11	.09	.00
Snow skiing	.04	.03	.00
Soccer	.03	.02	.01
Cricket	.02	.01	.17
Tennis	.03	.02	.00
Bowls	.08	.07	.00

McNair Respondent

Rugby	.03	.01	.03
Fitness	.06	.04	.00
Running jogging	.10	.09	.00
Snow skiing	.04	.02	.00
Soccer	.05	.03	.00
Cricket	.05	.03	.00
Tennis	.02	.0	.40
Bowls	.08	.07	.00

NZ Interlaced Demographics:6

Rugby	.01	.01	.12
Fitness	.02	.01	.06
Running jogging	.01	.01	.12
Snow skiing	.01	.01	.07
Soccer	.01	.0	.54
Cricket	.0	.0	.88
Tennis	.0	.0	.90
Bowls	.02	.02	.00

NZ Interlaced Demographics:3

Rugby	.0	.0	.33
Fitness	.01	.0	.13
Running jogging	.01	.0	.16
Snow skiing	.01	.0	.21
Soccer	.0	.0	.46
Cricket	.0	.0	.88
Tennis	.0	.0	.63
Bowls	.02	.01	.00

Elley-Irving CWE

Rugby	.02	.01	.05
Fitness	.02	.02	.01
Running jogging	.04	.03	.00
Snow skiing	.02	.01	.01
Soccer	.01	.0	.40
Cricket	.01	.0	.34
Tennis	.01	.0	.52
Bowls	.07	.06	.00

McNair CWE

Rugby	.03	.01	.05
Fitness	.05	.04	.00
Running jogging	.05	.04	.00
Snow skiing	.03	.02	.01
Soccer	.01	.0	.56
Cricket	.02	.01	.09
Tennis	.01	.0	.87
Bowls	.08	.06	.00

Education Respondent

Rugby	.0	.0	.42
Fitness	.01	.0	.20
Running jogging	.01	.01	.04
Snow skiing	.01	.0	.15
Soccer	.02	.0	.01
Cricket	.01	.0	.21
Tennis	.0	.0	.50
Bowls	.01	.0	.15

Age Respondent

Rugby	.03	.01	.07
Fitness	.06	.04	.00
Running jogging	.13	.11	.00
Snow skiing	.03	.01	.07
Soccer	.07	.05	.00
Cricket	.04	.02	.02
Tennis	.03	.01	.09
Bowls	.11	.09	.00

NZSCO CWE

Rugby	.03	.0	.19
Fitness	.03	.02	.01
Running jogging	.04	.03	.00
Snow skiing	.03	.02	.01
Soccer	.0	.0	.94
Cricket	.02	.01	.01
Tennis	.01	.0	.85
Bowls	.06	.05	.00

Social Grade Respondent

Rugby	.02	.02	.00
Fitness	.0	.0	.90
Running jogging	.0	.0	.84
Snow skiing	.01	.0	.27
Soccer	.01	.0	.68
Cricket	.01	.0	.56
Tennis	.01	.0	.43
Bowls	.01	.01	.08

NZSCO Respondent

Rugby	.03	.02	.00
Fitness	.01	.0	.55
Running jogging	.01	.0	.38
Snow skiing	.02	.01	.04
Soccer	.0	.0	.91
Cricket	.01	.0	.31
Tennis	.0	.0	.87
Bowls	.01	.0	.25

Social Grade CWE:1

Rugby	.01	.0	.18
Fitness	.01	.0	.40
Running jogging	.01	.0	.21
Snow skiing	.01	.01	.06
Soccer	.0	.0	.73
Cricket	.02	.01	.00
Tennis	.01	.01	.06
Bowls	.02	.01	.00

Income Respondent

Rugby	.02	.01	.03
Fitness	.01	.0	.32
Running jogging	.02	.01	.02
Snow skiing	.02	.01	.05
Soccer	.01	.0	.63
Cricket	.01	.0	.57
Tennis	.01	.0	.27
Bowls	.02	.01	.00

Income Household

Rugby	.01	.0	.13
Fitness	.01	.01	.02
Running jogging	.03	.03	.00
Snow skiing	.01	.0	.22
Soccer	.0	.0	.97
Cricket	.0	.0	.68
Tennis	.0	.0	.81
Bowls	.05	.05	.00

Social Grade CWE:2

Rugby	.01	.0	.26
Fitness	.01	.0	.40
Running jogging	.01	.0	.32
Snow skiing	.01	.0	.30
Soccer	.01	.0	.35
Cricket	.03	.02	.01
Tennis	.02	.0	.19
Bowls	.02	.01	.04

MONTHLY READERSHIP

SAGACITY:1	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
N.Z Womens Weekly	.04	.03	.00
N.Z Listener	.04	.03	.00
Rugby News	.02	.01	.11
New Idea	.02	.01	.13
Newsweek	.03	.02	.00
National Business Review	.06	.04	.00
Time	.04	.03	.00
Marketing	.03	.01	.02
NZ Interface	.04	.03	.00
Readers Digest	.03	.01	.02
NZ Finacial Review	.03	.02	.00
CO. Director Profess. Admin.	.03	.01	.02
Australian Womens Weekly	.02	.0	.30
NZ Gardener	.03	.02	.01
NZ Hot Rod	.06	.05	.00
Rip it Up	.08	.06	.00
Family Circle	.01	.0	.84
Sea Spray	.03	.01	.03
NZ Boating and Nautical News	.02	.0	.35
Better Business	.04	.03	.00
Management	.06	.01	.00
NZ Yachting	.03	.02	.02
Golden Times	.04	.03	.00
Accountants Journal	.03	.01	.02
More	.04	.03	.00
Auckland Metro	.04	.03	.02
NZ Farmer	.03	.01	.00
Mercantile Gazette	.04	.03	.00
NZ Motoring News	.03	.01	.03
Insight	.05	.03	.00
Home & Building	.02	.0	.03
Auto Age	.04	.03	.00
Signature	.06	.05	.00

N.Z Womens Weekly	.04	.02	.00
NZ Listener	.04	.03	.00
Rugby News	.02	.01	.12
New Idea	.02	.0	.23
Newsweek	.06	.04	.00
National Business Review	.06	.05	.00
Time	.06	.04	.00
Marketing	.03	.01	.02
NZ Interface	.02	.01	.06
Readers Digest	.03	.01	.03
NZ Finacial Review	.04	.02	.00
CO. Director Profess. Admin.	.03	.02	.01
Australian Womens Weekly	.03	.01	.03
NZ Gardener	.02	.01	.09
NZ Hot Rod	.01	.05	.00
Rip it Up	.07	.06	.00
Family Circle	.01	.0	.90
Sea Spray	.02	.01	.05
NZ Boating and Nautical News	.02	.0	.24
Better Business	.05	.03	.00
Management	.06	.05	.00
NZ Yachting	.02	.01	.09
Golden Times	.04	.02	.00
Accountants Journal	.03	.02	.01
More	.03	.01	.02
Auckland Metro	.05	.04	.00
NZ Farmer	.02	.01	.05
Mercantile Gazette	.05	.02	.00
NZ Motoring News	.03	.03	.00
Insight	.04	.03	.00
Home & Building	.02	.0	.34
Auto Age	.04	.03	.00
Signature	.07	.06	.00

SAGACITY:3

NZ Womens Weekly	.04	.02	.00
NZ Listener	.04	.03	.00
Rugby News	.02	.01	.05
New Idea	.01	.0	.04
Newsweek	.05	.03	.00
National Business Review	.07	.06	.00
Time	.05	.04	.00
Marketing	.04	.03	.00
NZ Interface	.03	.01	.03
Readers Digest	.02	.01	.00
NZ Finacial Review	.07	.05	.00
Coy Director Profess. Admin.	.05	.04	.00
Australian Womens Weekly	.02	.0	.30
NZ Gardener	.02	.01	.06
NZ Hot Rod	.06	.05	.00
Rip it Up	.08	.06	.00
Family Circle	.01	.0	.81
Sea Spray	.03	.01	.03
NZ Boating and Nautical News	.02	.01	.09
Better Business	.06	.05	.00
Management	.04	.03	.00
NZ Yachting	.03	.02	.02
Golden Times	.03	.02	.01
Accountants Journal	.03	.02	.01
More	.02	.01	.00
Auckland Metro	.04	.03	.00
NZ Farmer	.03	.02	.01
Mercantile Gazette	.05	.04	.00
NZ Motoring News	.03	.01	.03
Insight	.04	.03	.00
Home & Building	.02	.0	.30
Auto Age	.04	.02	.00
Signature	.07	.01	.00

McNair Respondent

NZ Womens Weekly	.08	.06	.00
NZ Listener	.04	.02	.00
Rugby News	.03	.02	.01
New Idea	.03	.02	.02
Newsweek	.03	.02	.01
National Business Review	.09	.07	.00
Time	.05	.03	.00
Marketing	.02	.0	.30
NZ Interface	.03	.02	.00
Readers Digest	.01	.0	.50
NZ Finacial Review	.04	.03	.00
Coy Director Profess. Admin.	.01	.0	.53
Australian Womens Weekly	.04	.03	.00
NZ Gardener	.02	.0	.39
NZ Hot Rod	.05	.03	.00
Rip it Up	.05	.04	.00
Family Circle	.02	.0	.27
Sea Spray	.04	.02	.00
NZ Boating and Nautical News	.02	.0	.23
Better Business	.07	.05	.00
Management	.05	.04	.00
NZ Yachting	.01	.0	.67
Golden Times	.03	.01	.04
Accountants Journal	.06	.05	.00
More	.02	.01	.01
Auckland Metro	.06	.04	.00
NZ Farmer	.07	.05	.00
Mercantile Gazette	.11	.10	.00
NZ Motoring News	.02	.0	.40
Insight	.05	.04	.00
Home & Building	.03	.02	.02
Auto Age	.02	.01	.20
Signature	.05	.04	.00

NZ Womens Weekly	.02	.01	.01
NZ Listener	.02	.01	.26
Rugby News	.02	.01	.06
New Idea	.02	.01	.05
Newsweek	.05	.05	.00
National Business Review	.06	.05	.00
Time	.05	.04	.00
Marketing	.02	.02	.00
NZ Interface	.03	.02	.00
Readers Digest	.0	.0	.79
NZ Finacial Review	.07	.6	.00
Coy Director Profess. Admin.	.02	.1	.03
Australian Womens Weekly	.01	.0	.45
NZ Gardener	.01	.0	.49
NZ Hot Rod	.01	.0	.55
Rip it Up	.01	.0	.18
Family Circle	.01	.0	.34
Sea Spray	.02	.01	.02
NZ Boating and Nautical News	.02	.02	.00
Better Business	.03	.02	.00
Management	.04	.03	.00
NZ Yachting	.01	.0	.34
Golden Times	.02	.01	.04
Accountants Journal	.03	.02	.00
More	.01	.0	.15
Auckland Metro	.06	.05	.00
NZ Farmer	.01	.0	.47
Mercantile Gazette	.03	.02	.04
NZ Motoring News	.02	.01	.00
Insight	.05	.04	.00
Home & Building	.01	.0	.30
Auto Age	.04	.04	.00
Signature	.09	.08	.00

NZ Womens Weekly	.02	.01	.00
NZ Listener	.0	.0	.33
Rugby News	.01	.01	.04
New Idea	.01	.01	.04
Newsweek	.04	.03	.00
National Business Review	.05	.04	.00
Time	.03	.02	.00
Marketing	.01	.01	.02
NZ Interface	.01	.01	.00
Readers Digest	.0	.0	.87
NZ Finacial Review	.06	.06	.00
Coy Director Profess. Admin.	.0	.0	.46
Australian Womens Weekly	.0	.0	.33
NZ Gardener	.0	.0	.68
NZ Hot Rod	.0	.0	.32
Rip it Up	.01	.0	.17
Family Circle	.01	.0	.10
Sea Spray	.01	.01	.02
NZ Boating and Nautical News	.02	.02	.00
Better Business	.03	.02	.00
Management	.03	.02	.00
NZ Yachting	.01	.0	.22
Golden Times	.01	.01	.00
Accountants Journal	.03	.02	.03
More	.01	.0	.09
Auckland Metro	.05	.05	.00
NZ Farmer	.0	.0	.55
Mercantile Gazette	.02	.02	.00
NZ Motoring News	.01	.01	.01
Insight	.04	.03	.00
Home & Building	.0	.0	.27
Auto Age	.03	.03	.00
Signature	.06	.05	.00

Elley-Irving CWE

NZ Womens Weekly	.01	.0	.41
NZ Listener	.02	.02	.00
Rugby News	.02	.01	.04
New Idea	.01	.0	.20
Newsweek	.03	.03	.00
National Business Review	.04	.03	.00
Time	.04	.03	.00
Marketing	.02	.01	.03
NZ Interface	.02	.02	.01
Readers Digest	.01	.0	.18
NZ Finacial Review	.03	.02	.00
Coy Director Profess. Admin.	.01	.0	.25
Australian Womens Weekly	.01	.0	.13
NZ Gardener	.01	.0	.22
NZ Hot Rod	.02	.01	.05
Rip it Up	.01	.01	.11
Family Circle	.01	.02	.28
Sea Spray	.02	.05	.00
NZ Boating and Nautical News	.05	.05	.00
Better Business	.05	.04	.00
Management	.02	.02	.00
NZ Yachting	.02	.01	.02
Golden Times	.04	.03	.00
Accountants Journal	.03	.03	.00
More	.02	.02	.00
Auckland Metro	.03	.02	.00
NZ Farmer	.03	.02	.00
Mercantile Gazette	.03	.02	.00
NZ Motoring News	.01	.0	.45
Insight	.05	.05	.00
Home & Building	.01	.0	.13
Auto Age	.02	.01	.01
Signature	.04	.03	.00

NZ Womens Weekly	.03	.01	.03
NZ Listener	.03	.02	.01
Rugby News	.02	.0	.40
New Idea	.02	.0	.00
Newsweek	.04	.03	.22
National Business Review	.04	.03	.00
Time	.05	.03	.00
Marketing	.02	.0	.24
NZ Interface	.01	.0	.58
Readers Digest	.02	.0	.40
NZ Finacial Review	.03	.01	.02
Coy Director Profess. Admin.	.02	.0	.33
Australian Womens Weekly	.03	.02	.01
NZ Gardener	.02	.0	.32
NZ Hot Rod	.03	.02	.02
Rip it Up	.03	.01	.02
Family Circle	.02	.01	.16
Sea Spray	.03	.01	.02
NZ Boating and Nautical News	.02	.01	.12
Better Business	.05	.03	.00
Management	.04	.03	.00
NZ Yachting	.02	.01	.19
Golden Times	.03	.02	.00
Accountants Journal	.04	.02	.01
More	.05	.03	.00
Auckland Metro	.08	.06	.00
NZ Farmer	.19	.18	.00
Mercantile Gazette	.03	.02	.00
NZ Motoring News	.02	.01	.14
Insight	.10	.09	.00
Home & Building	.02	.01	.06
Auto Age	.03	.02	.01
Signature	.06	.04	.00

EDUCATION

NZ Womens Weekly	.02	.01	.00
NZ Listener	.02	.01	.00
Rugby News	.02	.01	.00
New Idea	.01	.01	.07
Newsweek	.05	.05	.00
National Business Review	.04	.04	.00
Time	.07	.06	.00
Marketing	.02	.01	.00
NZ Interface	.02	.01	.00
Readers Digest	.0	.0	.41
NZ Finacial Review	.03	.03	.00
Coy Director Profess. Admin.	.0	.0	.41
Australian Womens Weekly	.01	.0	.14
NZ Gardener	.01	.01	.04
NZ Hot Rod	.0	.0	.57
Rip it Up	.0	.0	.44
Family Circle	.0	.0	.69
Sea Spray	.01	.01	.09
NZ Boating and Nautical News	.01	.0	.10
Better Business	.0	.0	.52
Management	.03	.02	.00
NZ Yachting	.01	.0	.26
Golden Times	.0	.0	.91
Accountants Journal	.03	.02	.00
More	.01	.01	.04
Auckland Metro	.10	.10	.00
NZ Farmer	.01	.0	.17
Mercantile Gazette	.01	.0	.18
NZ Motoring News	.0	.0	.57
Insight	.01	.0	.31
Home & Building	.0	.0	.37
Auto Age	.02	.01	.00
Signature	.03	.03	.00

AGE

NZ Womens Weekly	.02	.0	.64
NZ Listener	.04	.02	.00
Rugby News	.05	.03	.00
New Idea	.01	.0	.98
Newsweek	.01	.0	.82
National Business Review	.01	.0	.92
Time	.02	.0	.67
Marketing	.02	.0	.29
NZ Interface	.03	.01	.15
Readers Digest	.04	.02	.00
NZ Finacial Review	.01	.0	.89
Coy Director Profess. Admin.	.01	.0	.97
Australian Womens Weekly	.03	.0	.23
NZ Gardener	.04	.02	.02
NZ Hot Rod	.07	.05	.00
Rip it Up	.10	.09	.00
Family Circle	.03	.01	.17
Sea Spray	.02	.0	.44
NZ Boating and Nautical News	.01	.0	.91
Better Business	.03	.01	.18
Management	.01	.0	.86
NZ Yachting	.03	.01	.14
Golden Times	.03	.01	.14
Accountants Journal	.01	.0	.97
More	.01	.0	.78
Auckland Metro	.02	.0	.63
NZ Farmer	.02	.0	.42
Mercantile Gazette	.03	.01	.05
NZ Motoring News	.05	.03	.00
Insight	.02	.0	.41
Home & Building	.02	.0	.68
Auto Age	.04	.02	.03
Signature	.04	.02	.00

NZSCO CWE

NZ Womens Weekly	.01	.0	.72
NZ Listener	.04	.03	.00
Rugby News	.01	.0	.16
New Idea	.01	.0	.74
Newsweek	.02	.0	.11
National Business Review	.05	.04	.00
Time	.04	.03	.00
Marketing	.02	.01	.11
NZ Interface	.03	.02	.00
Readers Digest	.01	.0	.49
NZ Finacial Review	.03	.02	.00
Coy Director Profess. Admin.	.01	.0	.18
Australian Womens Weekly	.01	.0	.26
NZ Gardener	.01	.0	.64
NZ Hot Rod	.04	.03	.00
Rip it Up	.03	.02	.00
Family Circle	.01	.0	.78
Sea Spray	.01	.0	.32
NZ Boating and Nautical News	.02	.01	.05
Better Business	.03	.02	.00
Management	.02	.01	.06
NZ Yachting	.01	.0	.04
Golden Times	.02	.01	.00
Accountants Journal	.03	.02	.00
More	.01	.0	.15
Auckland Metro	.03	.02	.00
NZ Farmer	.17	.16	.00
Mercantile Gazette	.02	.01	.02
NZ Motoring News	.01	.03	.04
Insight	.06	.0	.00
Home & Building	.02	.0	.02
Auto Age	.02	.02	.04
Signature	.04	.02	.00

SOCIAL GRADE RESPONDENT

NZ Womens Weekly	.02	.01	.02
NZ Listener	.01	.0	.20
Rugby News	.03	.02	.40
New Idea	.09	.08	.05
Newsweek	.03	.03	.00
National Business Review	.01	.01	.00
Time	.03	.03	.00
Marketing	.01	.01	.07
NZ Interface	.01	.01	.09
Readers Digest	.01	.0	.41
NZ Financial Review	.08	.07	.00
Coy Director Profess. Admin.	.01	.0	.27
Australian Womens Weekly	.01	.0	.21
NZ Gardener	.01	.0	.26
NZ Hot Rod	.01	.0	.15
Rip it Up	.0	.0	.98
Family Circle	.02	.01	.02
Sea Spray	.03	.02	.00
NZ Boating and Nautical News	.01	.01	.11
Better Business	.05	.04	.00
Management	.04	.03	.00
NZ Yachting	.0	.0	.78
Golden Times	.01	.0	.12
Accountants Journal	.04	.03	.00
More	.01	.0	.42
Auckland Metro	.03	.03	.00
NZ Farmer	.03	.02	.00
Mercantile Gazette	.07	.06	.00
NZ Motoring News	.01	.0	.25
Insight	.03	.02	.00
Home & Building	.01	.0	.63
Auto Age	.03	.03	.00
Signature	.06	.05	.00

NZSCO Respondent

NZ Womens Weekly	.02	.01	.03
NZ Listener	.02	.01	.04
Rugby News	.02	.01	.04
New Idea	.02	.01	.08
Newsweek	.01	.0	.18
National Business Review	.08	.07	.00
Time	.03	.02	.00
Marketing	.02	.01	.02
NZ Interface	.02	.01	.04
Readers Digest	.02	.01	.13
NZ Finacial Review	.05	.04	.00
Coy Director Profess. Admin.	.01	.0	.53
Australian Womens Weekly	.01	.0	.23
NZ Gardener	.01	.0	.20
NZ Hot Rod	.01	.0	.19
Rip it Up	.01	.0	.54
Family Circle	.01	.0	.59
Sea Spray	.03	.02	.00
NZ Boating and Nautical News	.03	.02	.00
Better Business	.04	.03	.00
Management	.03	.02	.00
NZ Yachting	.02	.01	.01
Golden Times	.01	.0	.21
Accountants Journal	.05	.04	.04
More	.02	.01	.00
Auckland Metro	.04	.03	.00
NZ Farmer	.10	.09	.00
Mercantile Gazette	.06	.05	.00
NZ Motoring News	.02	.01	.04
Insight	.02	.01	.01
Home & Building	.01	.0	.33
Auto Age	.05	.04	.00
Signature	.04	.03	.00

Social Grade   CWE:1

NZ Womens Weekly	.01	.0	.04
NZ Listener	.03	.02	.00
Rugby News	.01	.0	.24
New Idea	.02	.01	.01
Newsweek	.03	.02	.00
National Business Review	.04	.03	.00
Time	.04	.03	.00
Marketing	.01	.0	.54
NZ Interface	.01	.01	.04
Readers Digest	.0	.0	.76
NZ Finacial Review	.02	.02	.00
Coy Director Profess. Admin.	.01	.0	.41
Australian Womens Weekly	.01	.0	.24
NZ Gardener	.01	.0	.28
NZ Hot Rod	.01	.0	.43
Rip it Up	.01	.0	.31
Family Circle	.0	.0	.79
Sea Spray	.02	.01	.00
NZ Boating and Nautical News	.01	.01	.04
Better Business	.03	.03	.00
Management	.02	.01	.00
NZ Yachting	.0	.0	.59
Golden Times	.0	.0	.79
Accountants Journal	.02	.01	.01
More	.02	.01	.01
Auckland Metro	.03	.03	.01
NZ Farmer	.06	.05	.00
Mercantile Gazette	.04	.04	.00
NZ Motoring News	.0	.0	.88
Insight	.04	.03	.00
Home & Building	.01	.01	.56
Auto Age	.03	.02	.00
Signature	.02	.02	.00

Income Respondent

NZ Womens Weekly	.02	.02	.06
NZ Listener	.01	.0	.31
Rugby News	.01	.0	.62
New Idea	.03	.03	.00
Newsweek	.02	.02	.00
National Business Review	.05	.05	.00
Time	.02	.01	.01
Marketing	.01	.0	.79
NZ Interface	.02	.01	.24
Readers Digest	.01	.01	.91
NZ Finacial Review	.03	.02	.02
Coy Director Profess. Admin.	.01	.0	.83
Australian Womens Weekly	.01	.0	.21
NZ Gardener	.0	.0	.14
NZ Hot Rod	.0	.0	.80
Rip it Up	.0	.0	.72
Family Circle	.01	.0	.95
Sea Spray	.01	.0	.07
NZ Boating and Nautical News	.02	.02	.21
Better Business	.03	.02	.05
Management	.03	.02	.91
NZ Yachting	.0	.0	.63
Golden Times	.01	.0	.12
Accountants Journal	.06	.05	.12
More	.03	.02	.00
Auckland Metro	.02	.02	.00
NZ Farmer	.01	.0	.00
Mercantile Gazette	.06	.06	.00
NZ Motoring News	.0	.0	.88
Insight	.02	.01	.00
Home & Building	.01	.0	.28
Auto Age	.01	.0	.00
Signature	.04	.03	.01

Income of Household

NZ Womens Weekly	.01	.0	.00
NZ Listener	.0	.0	.31
Rugby News	.01	.0	.28
New Idea	.02	.01	.00
Newsweek	.01	.0	.00
National Business Review	.03	.03	.00
Time	.02	.01	.01
Marketing	.01	.01	.23
NZ Interface	.01	.0	.01
Readers Digest	.0	.0	.09
NZ Finacial Review	.03	.03	.00
Coy Director Profess. Admin.	.01	.0	.41
Australian Womens Weekly	.01	.0	.08
NZ Gardener	.0	.0	.95
NZ Hot Rod	.02	.01	.68
Rip it Up	.02	.01	.40
Family Circle	.01	.01	.51
Sea Spray	.01	.0	.07
NZ Boating and Nautical News	.0	.0	.00
Better Business	.01	.0	.00
Management	.01	.01	.00
NZ Yachting	.01	.01	.84
Golden Times	.01	.01	.50
Accountants Journal	.01	.0	.00
More	.01	.01	.00
Auckland Metro	.03	.03	.00
NZ Farmer	.02	.02	.15
Mercantile Gazette	.01	.01	.00
NZ Motoring News	.0	.0	.74
Insight	.03	.03	.01
Home & Building	.0	.0	.18
Auto Age	.02	.01	.17
Signature	.05	.05	.00

Social Grade CWE:2

NZ Womens Weekly	.02	.01	.19
NZ Listener	.03	.02	.44
Rugby News	.01	.0	.16
New Idea	.03	.02	.00
Newsweek	.05	.03	.11
National Business Review	.04	.03	.00
Time	.04	.03	.00
Marketing	.01	.0	.05
NZ Interface	.01	.0	.13
Readers Digest	.01	.0	.89
NZ Finacial Review	.02	.01	.00
Coy Director Profess. Admin.	.01	.0	.11
Australian Womens Weekly	.02	.01	.40
NZ Gardener	.02	.0	.84
NZ Hot Rod	.01	.0	.01
Rip it Up	.01	.0	.01
Family Circle	.0	.0	.03
Sea Spray	.02	.01	.10
NZ Boating and Nautical News	.01	.0	.49
Better Business	.04	.03	.20
Management	.02	.01	.07
NZ Yachting	.0	.0	.06
Golden Times	.01	.0	.02
Accountants Journal	.02	.01	.34
More	.04	.03	.03
Auckland Metro	.04	.03	.00
NZ Farmer	.06	.05	.00
Mercantile Gazette	.04	.03	.04
NZ Motoring News	.01	.0	.50
Insight	.04	.03	.00
Home & Building	.01	.0	.49
Auto Age	.03	.02	.00
Signature	.03	.01	.00

READERSHIP PREVIOUS SEVEN DAYS

SAGACITY:1	R2	R2 ADJUSTED	SIGNIFICANCE OF R2
NZ Womens Weekly	.04	.03	.00
NZ Listener	.05	.04	.00
Rugby News	.02	.0	.03
New Idea	.02	.01	.18
Newsweek	.04	.02	.00
National Business Review	.08	.07	.00
Time	.04	.03	.00
Marketing	.02	.01	.10
NZ Interface	.02	.01	.12
Readers Digest	.03	.01	.02
NZ Finacial Review	.03	.01	.02
Coy Director Profess. Admin.	.03	.02	.01
Australian Womens Weekly	.02	.01	.01
NZ Gardener	.02	.01	.18
NZ Hot Rod	.05	.03	.00
Rip it Up	.07	.06	.00
Family Circle	.01	.0	.68
Sea Spray	.03	.02	.01
NZ Boating and Nautical News	.01	.0	.63
Better Business	.04	.03	.00
Management	.06	.05	.00
NZ Yachting	.02	.01	.18
Golden Times	.04	.03	.00
Accountants Journal	.03	.02	.01
More	.05	.03	.00
Auckland Metro	.04	.03	.00
NZ Farmer	.02	.01	.00
Mercantile Gazette	.03	.01	.03
NZ Motoring News	.02	.01	.05
Insight	.04	.03	.00
Home & Building	.02	.01	.16
Auto Age	.04	.02	.00
Signature	.05	.03	.00

NZ Womens Weekly	.03	.01	.02
NZ Listener	.05	.04	.00
Rugby News	.02	.0	.19
New Idea	.02	.01	.10
Newsweek	.05	.04	.00
National Business Review	.12	.10	.00
Time	.05	.04	.00
Marketing	.02	.01	.10
NZ Interface	.01	.0	.40
Readers Digest	.03	.02	.00
NZ Finacial Review	.03	.02	.01
Coy Director Profess. Admin.	.03	.02	.01
Australian Womens Weekly	.03	.02	.01
NZ Gardener	.01	.0	.60
NZ Hot Rod	.05	.03	.00
Rip it Up	.07	.06	.00
Family Circle	.0	.0	.97
Sea Spray	.03	.01	.02
NZ Boating and Nautical News	.02	.0	.18
Better Business	.05	.04	.00
Management	.08	.07	.00
NZ Yachting	.02	.01	.06
Golden Times	.03	.02	.00
Accountants Journal	.04	.03	.00
More	.04	.03	.00
Auckland Metro	.04	.02	.00
NZ Farmer	.02	.01	.09
Mercantile Gazette	.03	.02	.00
NZ Motoring News	.02	.01	.04
Insight	.04	.03	.00
Home & Building	.02	.01	.13
Auto Age	.04	.02	.00
Signature	.06	.05	.00

NZ Womens Weekly	.03	.01	.03
NZ Listener	.05	.04	.00
Rugby News	.02	.01	.07
New Idea	.02	.0	.23
Newsweek	.05	.03	.00
National Business Review	.16	.15	.00
Time	.05	.04	.00
Marketing	.04	.02	.00
NZ Interface	.01	.0	.37
Readers Digest	.02	.01	.04
NZ Finacial Review	.04	.03	.00
Coy Director Profess. Admin.	.05	.03	.00
Australian Womens Weekly	.02	.0	.18
NZ Gardener	.01	.0	.50
NZ Hot Rod	.05	.03	.00
Rip it Up	.07	.06	.00
Family Circle	.01	.0	.92
Sea Spray	.03	.02	.00
NZ Boating and Nautical News	.02	.01	.07
Better Business	.05	.04	.00
Management	.05	.04	.00
NZ Yachting	.05	.04	.00
Golden Times	.02	.01	.05
Accountants Journal	.05	.04	.00
More	.04	.02	.00
Auckland Metro	.03	.02	.00
NZ Farmer	.03	.01	.03
Mercantile Gazette	.05	.04	.00
NZ Motoring News	.02	.01	.04
Insight	.04	.03	.00
Home & Building	.02	.01	.13
Auto Age	.03	.02	.00
Signature	.06	.04	.00

McNair Respondent

NZ Womens Weekly	.05	.03	.00
NZ Listener	.03	.02	.01
Rugby News	.02	.01	.06
New Idea	.03	.01	.05
Newsweek	.04	.02	.00
National Business Review	.14	.13	.00
Time	.07	.03	.00
Marketing	.03	.01	.00
NZ Interface	.04	.03	.00
Readers Digest	.02	.01	.14
NZ Finacial Review	.05	.03	.00
Coy Director Profess. Admin.	.03	.01	.05
Australian Womens Weekly	.03	.02	.01
NZ Gardener	.01	.0	.53
NZ Hot Rod	.03	.02	.01
Rip it Up	.06	.04	.00
Family Circle	.02	.0	.39
Sea Spray	.04	.02	.00
NZ Boating and Nautical News	.03	.01	.04
Better Business	.05	.03	.00
Management	.07	.05	.00
NZ Yachting	.01	.0	.54
Golden Times	.02	.0	.20
Accountants Journal	.06	.04	.00
More	.03	.02	.01
Auckland Metro	.06	.05	.00
NZ Farmer	.06	.04	.00
Mercantile Gazette	.11	.10	.00
NZ Motoring News	.02	.0	.00
Insight	.04	.02	.41
Home & Building	.04	.02	.00
Auto Age	.01	.0	.53
Signature	.04	.02	.00

NZ Womens Weekly	.02	.01	.02
NZ Listener	.03	.02	.00
Rugby News	.02	.02	.00
New Idea	.01	.01	.00
Newsweek	.05	.04	.08
National Business Review	.07	.06	.00
Time	.05	.04	.00
Marketing	.03	.02	.00
NZ Interface	.01	.01	.06
Readers Digest	.0	.0	.90
NZ Finacial Review	.05	.05	.00
Coy Director Profess. Admin.	.02	.01	.04
Australian Womens Weekly	.01	.01	.23
NZ Gardener	.01	.0	.36
NZ Hot Rod	.0	.0	.69
Rip it Up	.01	.0	.14
Family Circle	.01	.0	.48
Sea Spray	.02	.01	.01
NZ Boating and Nautical News	.02	.01	.05
Better Business	.04	.03	.00
Management	.04	.03	.00
NZ Yachting	.0	.0	.95
Golden Times	.02	.01	.01
Accountants Journal	.03	.02	.00
More	.02	.01	.01
Auckland Metro	.07	.06	.00
NZ Farmer	.01	.0	.63
Mercantile Gazette	.02	.02	.00
NZ Motoring News	.01	.01	.07
Insight	.05	.04	.00
Home & Building	.01	.0	.47
Auto Age	.04	.03	.00
Signature	.07	.07	.00

NZ Womens Weekly	.02	.01	.00
NZ Listener	.01	.0	.10
Rugby News	.01	.01	.03
New Idea	.01	.01	.05
Newsweek	.03	.02	.00
National Business Review	.06	.06	.00
Time	.02	.02	.00
Marketing	.01	.01	.07
NZ Interface	.01	.0	.14
Readers Digest	.0	.0	.96
NZ Finacial Review	.04	.04	.00
Coy Director Profess. Admin.	.01	.01	.05
Australian Womens Weekly	.01	.0	.20
NZ Gardener	.0	.0	.50
NZ Hot Rod	.0	.0	.37
Rip it Up	.01	.01	.04
Family Circle	.01	.0	.21
Sea Spray	.01	.01	.00
NZ Boating and Nautical News	.02	.01	.00
Better Business	.03	.03	.00
Management	.03	.03	.00
NZ Yachting	.0	.0	.85
Golden Times	.01	.01	.00
Accountants Journal	.02	.02	.00
More	.01	.01	.04
Auckland Metro	.06	.06	.00
NZ Farmer	.0	.0	.54
Mercantile Gazette	.01	.01	.00
NZ Motoring News	.01	.01	.02
Insight	.03	.03	.00
Home & Building	.01	.0	.21
Auto Age	.03	.03	.00
Signature	.05	.04	.00

ELLEY-IRVING

NZ Womens Weekly	.01	.0	.52
NZ Listener	.02	.02	.00
Rugby News	.01	.0	.18
New Idea	.01	.0	.32
Newsweek	.03	.02	.00
National Business Review	.06	.05	.00
Time	.03	.02	.00
Marketing	.01	.01	.07
NZ Interface	.01	.01	.56
Readers Digest	.01	.01	.08
NZ Finacial Review	.02	.01	.02
Coy Director Profess. Admin.	.02	.01	.03
Australian Womens Weekly	.02	.01	.05
NZ Gardener	.0	.0	.91
NZ Hot Rod	.01	.0	.24
Rip it Up	.01	.01	.03
Family Circle	.02	.01	.05
Sea Spray	.02	.01	.02
NZ Boating and Nautical News	.03	.03	.00
Better Business	.06	.05	.00
Management	.02	.01	.01
NZ Yachting	.01	.0	.43
Golden Times	.03	.02	.00
Accountants Journal	.04	.03	.00
More	.03	.02	.00
Auckland Metro	.03	.02	.00
NZ Farmer	.02	.01	.01
Mercantile Gazette	.02	.01	.00
NZ Motoring News	.01	.0	.32
Insight	.05	.04	.00
Home & Building	.01	.0	.16
Auto Age	.01	.01	.08
Signature	.03	.02	.00

NZ Womens Weekly	.02	.01	.18
NZ Listener	.03	.02	.00
Rugby News	.02	.0	.40
New Idea	.02	.0	.37
Newsweek	.04	.02	.00
National Business Review	.07	.05	.00
Time	.04	.03	.00
Marketing	.03	.01	.06
NZ Interface	.01	.0	.09
Readers Digest	.02	.0	.39
NZ Finacial Review	.02	.01	.09
Coy Director Profess. Admin.	.03	.01	.05
Australian Womens Weekly	.03	.01	.12
NZ Gardener	.01	.0	.74
NZ Hot Rod	.03	.01	.02
Rip it Up	.03	.02	.01
Family Circle	.02	.01	.07
Sea Spray	.04	.03	.00
NZ Boating and Nautical News	.01	.0	.48
Better Business	.05	.04	.00
Management	.05	.03	.00
NZ Yachting	.03	.02	.01
Golden Times	.02	.01	.08
Accountants Journal	.04	.03	.00
More	.05	.03	.00
Auckland Metro	.08	.06	.00
NZ Farmer	.16	.15	.00
Mercantile Gazette	.03	.01	.06
NZ Motoring News	.02	.01	.07
Insight	.08	.06	.00
Home & Building	.03	.01	.04
Auto Age	.03	.01	.06
Signature	.07	.05	.00

Respondent Education

NZ Womens Weekly	.02	.01	.01
NZ Listener	.02	.01	.00
Rugby News	.02	.01	.01
New Idea	.02	.01	.00
Newsweek	.05	.05	.00
National Business Review	.03	.02	.00
Time	.06	.06	.00
Marketing	.02	.02	.00
NZ Interface	.01	.01	.02
Readers Digest	.01	.0	.10
NZ Finacial Review	.02	.01	.00
Coy Director Profess. Admin.	.0	.0	.42
Australian Womens Weekly	.01	.0	.38
NZ Gardener	.0	.0	.10
NZ Hot Rod	.0	.0	.73
Rip it Up	.0	.0	.51
Family Circle	.0	.0	.76
Sea Spray	.01	.01	.08
NZ Boating and Nautical News	.02	.01	.00
Better Business	.01	.0	.27
Management	.02	.02	.00
NZ Yachting	.01	.0	.29
Golden Times	.0	.0	.65
Accountants Journal	.03	.02	.00
More	.02	.01	.00
Auckland Metro	.10	.10	.00
NZ Farmer	.01	.0	.32
Mercantile Gazette	.01	.0	.33
NZ Motoring News	.01	.0	.29
Insight	.0	.0	.61
Home & Building	.0	.0	.56
Auto Age	.02	.01	.00
Signature	.03	.02	.00

NZSCO CWE

NZ Womens Weekly	.01	.0	.64
NZ Listener	.04	.03	.00
Rugby News	.01	.0	.16
New Idea	.01	.0	.33
Newsweek	.02	.01	.09
National Business Review	.06	.05	.00
Time	.04	.03	.00
Marketing	.02	.01	.09
NZ Interface	.01	.0	.42
Readers Digest	.01	.0	.84
NZ Finacial Review	.03	.02	.00
Coy Director Profess. Admin.	.02	.01	.05
Australian Womens Weekly	.02	.01	.09
NZ Gardener	.0	.0	.91
NZ Hot Rod	.04	.03	.00
Rip it Up	.03	.02	.00
Family Circle	.01	.0	.22
Sea Spray	.01	.0	.77
NZ Boating and Nautical News	.01	.0	.29
Better Business	.04	.03	.00
Management	.02	.01	.14
NZ Yachting	.01	.0	.18
Golden Times	.01	.0	.16
Accountants Journal	.03	.02	.00
More	.02	.01	.10
Auckland Metro	.04	.03	.00
NZ Farmer	.17	.16	.00
Mercantile Gazette	.02	.0	.06
NZ Motoring News	.02	.01	.04
Insight	.05	.04	.00
Home & Building	.01	.0	.18
Auto Age	.01	.0	.23
Signature	.03	.02	.00

Social Grade Respondent

NZ Womens Weekly	.02	.01	.03
NZ Listener	.01	.0	.25
Rugby News	.01	.0	.42
New Idea	.02	.01	.01
Newsweek	.03	.02	.00
National Business Review	.09	.09	.00
Time	.04	.03	.00
Marketing	.01	.01	.07
NZ Interface	.02	.01	.02
Readers Digest	.01	.0	.47
NZ Finacial Review	.05	.05	.00
Coy Director Profess. Admin.	.01	.01	.10
Australian Womens Weekly	.01	.0	.45
NZ Gardener	.01	.0	.62
NZ Hot Rod	.01	.0	.15
Rip it Up	.0	.0	.99
Family Circle	.01	.0	.07
Sea Spray	.03	.02	.00
NZ Boating and Nautical News	.02	.01	.02
Better Business	.03	.03	.00
Management	.05	.04	.00
NZ Yachting	.01	.0	.65
Golden Times	.01	.0	.30
Accountants Journal	.05	.04	.00
More	.01	.01	.00
Auckland Metro	.03	.02	.00
NZ Farmer	.03	.02	.02
Mercantile Gazette	.06	.06	.00
NZ Motoring News	.01	.0	.13
Insight	.01	.01	.07
Home & Building	.01	.0	.45
Auto Age	.04	.03	.00
Signature	.03	.02	.00

NZSCO Respondent

NZ Womens Weekly	.02	.01	.08
NZ Listener	.02	.01	.07
Rugby News	.01	.0	.31
New Idea	.02	.01	.03
Newsweek	.02	.01	.03
National Business Review	.09	.08	.00
Time	.04	.03	.00
Marketing	.02	.01	.15
NZ Interface	.02	.01	.01
Readers Digest	.01	.0	.51
NZ Finacial Review	.04	.3	.00
Coy Director Profess. Admin.	.01	.0	.60
Australian Womens Weekly	.01	.0	.43
NZ Gardener	.01	.0	.63
NZ Hot Rod	.01	.0	.41
Rip it Up	.01	.0	.71
Family Circle	.0	.0	.88
Sea Spray	.02	.01	.03
NZ Boating and Nautical News	.04	.03	.00
Better Business	.03	.02	.00
Management	.03	.02	.00
NZ Yachting	.02	.01	.02
Golden Times	.01	.0	.45
Accountants Journal	.06	.05	.00
More	.02	.01	.03
Auckland Metro	.04	.03	.00
NZ Farmer	.10	.09	.00
Mercantile Gazette	.05	.04	.00
NZ Motoring News	.03	.02	.00
Insight	.01	.0	.38
Home & Building	.01	.0	.45
Auto Age	.05	.04	.00
Signature	.03	.02	.00

Social Grade CWE:1

NZ Womens Weekly	.01	.0	.17
NZ Listener	.04	.03	.00
Rugby News	.01	.0	.43
New Idea	.02	.01	.01
Newsweek	.02	.02	.00
National Business Review	.05	.05	.00
Time	.03	.02	.00
Marketing	.01	.0	.33
NZ Interface	.01	.0	.45
Readers Digest	.01	.0	.46
NZ Finacial Review	.01	.01	.06
Coy Director Profess. Admin.	.01	.0	.20
Australian Womens Weekly	.0	.0	.67
NZ Gardener	.0	.0	.96
NZ Hot Rod	.0	.0	.98
Rip it Up	.01	.0	.33
Family Circle	.01	.0	.31
Sea Spray	.01	.0	.24
NZ Boating and Nautical News	.02	.01	.03
Better Business	.01	.0	.00
Management	.05	.02	.00
NZ Yachting	.0	.0	.46
Golden Times	.01	.0	.92
Accountants Journal	.05	.01	.02
More	.02	.02	.00
Auckland Metro	.04	.02	.00
NZ Farmer	.01	.05	.00
Mercantile Gazette	.07	.02	.00
NZ Motoring News	.01	.0	.41
Insight	.01	.03	.00
Home & Building	.01	.01	.05
Auto Age	.01	.02	.00
Signature	.03	.02	.00

Income of Respondent

NZ Womens Weekly	.01	.0	.16
NZ Listener	.01	.0	.18
Rugby News	.01	.0	.38
New Idea	.02	.01	.01
Newsweek	.03	.02	.00
National Business Review	.06	.06	.00
Time	.02	.01	.00
Marketing	.01	.01	.00
NZ Interface	.02	.01	.01
Readers Digest	.01	.0	.18
NZ Finacial Review	.02	.02	.00
Coy Director Profess. Admin.	.01	.0	.34
Australian Womens Weekly	.01	.0	.64
NZ Gardener	.0	.0	.71
NZ Hot Rod	.0	.0	.92
Rip it Up	.01	.0	.44
Family Circle	.0	.0	.80
Sea Spray	.02	.01	.01
NZ Boating and Nautical News	.02	.01	.00
Better Business	.01	.01	.09
Management	.05	.04	.00
NZ Yachting	.0	.0	.90
Golden Times	.01	.0	.56
Accountants Journal	.05	.04	.00
More	.02	.01	.03
Auckland Metro	.04	.03	.00
NZ Farmer	.01	.0	.37
Mercantile Gazette	.07	.07	.00
NZ Motoring News	.01	.0	.30
Insight	.01	.0	.17
Home & Building	.01	.0	.61
Auto Age	.01	.0	.37
Signature	.03	.03	.00

Household Income

NZ Womens Weekly	.0	.0	.45
NZ Listener	.01	.0	.24
Rugby News	.01	.0	.22
New Idea	.02	.01	.01
Newsweek	.01	.01	.01
National Business Review	.04	.04	.00
Time	.02	.01	.01
Marketing	.01	.01	.02
NZ Interface	.0	.0	.60
Readers Digest	.0	.0	.82
NZ Finacial Review	.03	.02	.00
Coy Director Profess. Admin.	.01	.01	.07
Australian Womens Weekly	.01	.0	.33
NZ Gardener	.0	.0	.68
NZ Hot Rod	.01	.01	.04
Rip it Up	.02	.01	.01
Family Circle	.01	.01	.07
Sea Spray	.01	.0	.11
NZ Boating and Nautical News	.01	.0	.28
Better Business	.01	.0	.16
Management	.02	.01	.01
NZ Yachting	.01	.01	.02
Golden Times	.01	.0	.14
Accountants Journal	.01	.0	.15
More	.01	.01	.03
Auckland Metro	.02	.02	.00
NZ Farmer	.03	.02	.00
Mercantile Gazette	.02	.01	.00
NZ Motoring News	.01	.0	.40
Insight	.03	.03	.00
Home & Building	.0	.0	.60
Auto Age	.01	.01	.03
Signature	.05	.04	.00

Social Grade CWE:2

NZ Womens Weekly	.02	.0	.19
NZ Listener	.04	.03	.00
Rugby News	.01	.0	.82
New Idea	.03	.02	.00
Newsweek	.05	.04	.00
National Business Review	.05	.04	.00
Time	.03	.02	.00
Marketing	.01	.0	.76
NZ Interface	.01	.0	.86
Readers Digest	.01	.0	.72
NZ Finacial Review	.01	.0	.24
Coy Director Profess. Admin.	.01	.0	.61
Australian Womens Weekly	.01	.0	.61
NZ Gardener	.01	.0	.86
NZ Hot Rod	.0	.0	.99
Rip it Up	.01	.0	.99
Family Circle	.01	.0	.74
Sea Spray	.01	.0	.71
NZ Boating and Nautical News	.02	.0	.21
Better Business	.05	.03	.00
Management	.03	.02	.00
NZ Yachting	.01	.0	.80
Golden Times	.01	.0	.60
Accountants Journal	.02	.0	.18
More	.03	.02	.00
Auckland Metro	.03	.02	.00
NZ Farmer	.05	.04	.00
Mercantile Gazette	.03	.02	.00
NZ Motoring News	.01	.0	.47
Insight	.04	.03	.00
Home & Building	.01	.0	.24
Auto Age	.03	.01	.01
Signature	.02	.01	.03

APPENDIX 12

TABLES OF LAMBDA AND PERCENTAGE CORRECTLY CLASSIFIED

ALCHOHOLIC BEVERAGES

SAGACITY:1	LAMBDA	CORRECTLY CLASSIFIED
Overseas beer	.50	.56
Bourbon	.67	.87
Whiskey	.19	.28
Gin	.09	.31
Dark rum	.07	.43
White rum		.72
Brandy or cognac	.17	.42
Red table wine	.32	.62
Still table wine	.06	.37
Sparkling wine	.19	.38
Sherry or port	.28	.41
Beer drank last occassion	.0	.38
Spirit drank last occassion	.14	.29
Wine drank last occassion	.14	.38

SAGACITY:2		
Overseas beer	.50	.56
Bourbon	.67	.87
Whiskey	.21	.30
Gin	.14	.37
Dark rum	.14	.50
White rum		.66
Brandy or cognac	.0	.63
Red table wine	.24	.54
Still table wine	.06	.34
Sparkling wine	.19	.35
Sherry or port	.19	.41
Beer drank last occassion	.0	.56
Spirit drank last occassion	.11	.26
Wine drank last occassion	.19	.30

SAGACITY:3

Overseas beer	.50	.56
Bourbon	.67	.80
Whiskey	.21	.26
Gin	.11	.33
Dark rum	.14	.50
White rum		.69
Brandy or cognac	.33	.68
Red table wine	.24	.50
Still table wine	.05	.33
Sparkling wine	.19	.35
Sherry or port	.16	.39
Beer drank last occassion	.0	.60
Spirit drank last occassion	.10	.24
Wine drank last occassion	.16	.24

McNair Respondent

Overseas beer	.60	.63
Bourbon	.33	.80
Whiskey	.19	.31
Gin	.11	.30
Dark rum	.43	.70
White rum		.52
Brandy or cognac	.0	.53
Red table wine	.24	.50
Still table wine	.0	.29
Sparkling wine	.24	.46
Sherry or port	.16	.36
Beer drank last occassion	.0	.42
Spirit drank last occassion	.12	.26
Wine drank last occassion	.12	.30

NZ Interlaced Demographics:6

Overseas beer	.27	.44
Bourbon	.33	.53
Whiskey	.09	.19
Gin	.02	.25
Dark rum	.07	.30
White rum		.41
Brandy or cognac	.0	.37
Red table wine	.19	.38
Still table wine	.0	.19
Sparkling wine	.19	.41
Sherry or port	.12	.27
Beer drank last occassion	.0	.23
Spirit drank last occassion	.02	.17
Wine drank last occassion	.0	.23

NZ Interlaced demographics:3

Overseas beer	.18	.25
Bourbon	.33	.27
Whiskey	.02	.11
Gin	.02	.10
Dark rum	.07	.37
White rum		.21
Brandy or cognac	.0	.21
Red table wine	.11	.38
Still table wine	.0	.18
Sparkling wine	.08	.22
Sherry or port	.09	.27
Beer drank last occassion	.0	.36
Spirit drank last occassion	.02	.18
Wine drank last occassion	.0	.01

Elley-Irving CWE

Overseas beer	.45	.44
Bourbon	.33	.87
Whiskey	.19	.22
Gin	.0	.12
Dark rum	.30	.47
White rum		.48
Brandy or cognac	.33	.53
Red table wine	.26	.46
Still table wine	.0	.31
Sparkling wine	.19	.43
Sherry or port	.15	.41
Beer drank last occassion	.0	.58
Spirit drank last occassion	.07	.20
Wine drank last occassion	.12	.18

McNair CWE

Overseas beer	.45	.38
Bourbon	.66	.87
Whiskey	.19	.30
Gin	.14	.28
Dark rum	.50	.70
White rum		.59
Brandy or cognac	.17	.63
Red table wine	.38	.69
Still table wine	.03	.22
Sparkling wine	.22	.38
Sherry or port	.19	.32
Beer drank last occassion	.02	.58
Spirit drank last occassion	.09	.28
Wine drank last occassion	.08	.33

Education Respondent

Overseas beer	.27	.38
Bourbon	.0	.73
Whiskey	.10	.22
Gin	.02	.21
Dark rum	.21	.20
White rum		.21
Brandy or cognac	.0	.58
Red table wine	.19	.42
Still table wine	.0	.16
Sparkling wine	.27	.30
Sherry or port	.16	.41
Beer drank last occassion	.0	.22
Spirit drank last occassion	.04	.23
Wine drank last occassion	.01	.05

Age Respondent

Overseas beer	.45	.50
Bourbon	.0	.67
Whiskey	.26	.33
Gin	.16	.24
Dark rum	.36	.70
White rum		.66
Brandy or cognac	.17	.63
Red table wine	.16	.42
Still table wine	.0	.24
Sparkling wine	.27	.49
Sherry or port	.21	.41
Beer drank last occassion	.0	.49
Spirit drank last occassion	.11	.23
Wine drank last occassion	.18	.30

NZSCO CWE

Overseas beer	.45	.50
Bourbon	.33	.87
Whiskey	.13	.24
Gin	.10	.30
Dark rum	.38	.53
White rum		.62
Brandy or cognac	.20	.63
Red table wine	.29	.65
Still table wine	.05	.25
Sparkling wine	.28	.41
Sherry or port	.14	.41
Beer drank last occassion	.0	.41
Spirit drank last occassion	.07	.25
Wine drank last occassion	.15	.18

Social Grade Respondent

Overseas beer	.45	.44
Bourbon	.33	.80
Whiskey	.02	.15
Gin	.10	.30
Dark rum	.0	.27
White rum		.52
Brandy or cognac	.0	.37
Red table wine	.11	.50
Still table wine	.0	.23
Sparkling wine	.17	.43
Sherry or port	.12	.36
Beer drank last occassion	.0	.59
Spirit drank last occassion	.08	.14
Wine drank last occassion	.04	.13

NZSCO Respondent

Overseas beer	.40	.50
Bourbon	.33	.60
Whiskey	.15	.24
Gin	.07	.33
Dark rum	.15	.50
White rum		.48
Brandy or cognac	.0	.47
Red table wine	.20	.54
Still table wine	.01	.33
Sparkling wine	.14	.38
Sherry or port	.12	.39
Beer drank last occassion	.0	.59
Spirit drank last occassion	.09	.18
Wine drank last occassion	.11	.15

Social Grade CWE:1

Overseas beer	.36	.50
Bourbon	.33	.87
Whiskey	.10	.17
Gin	.14	.28
Dark rum	.31	.30
White rum		.62
Brandy or cognac	.0	.32
Red table wine	.22	.50
Still table wine	.04	.28
Sparkling wine	.22	.41
Sherry or port	.19	.36
Beer drank last occassion	.0	.43
Spirit drank last occassion	.06	.20
Wine drank last occassion	.09	.10

Social Grade CWE:2

Overseas beer	.36	.50
Bourbon	.33	.87
Whiskey	.10	.17
Gin	.12	.31
Dark rum	.10	.33
White rum		.69
Brandy or cognac	.0	.47
Red table wine	.22	.50
Still table wine	.02	.29
Sparkling wine	.17	.43
Sherry or port	.18	.43
Beer drank last occassion	.0	.45
Spirit drank last occassion	.05	.20
Wine drank last occassion	.13	.23

Income Respondent

Overseas beer	.27	.44
Bourbon	.33	.67
Whiskey	.10	.19
Gin	.05	.22
Dark rum	.21	.47
White rum		.41
Brandy or cognac	.0	.58
Red table wine	.16	.46
Still table wine	.0	.22
Sparkling wine	.22	.41
Sherry or port	.16	.39
Beer drank last occassion	.0	.34
Spirit drank last occassion	.04	.21
Wine drank last occassion	.05	.30

Income Household

Overseas beer	.45	.38
Bourbon	.0	.47
Whiskey	.10	.26
Gin	.0	.16
Dark rum	.07	.43
White rum		.38
Brandy or cognac	.0	.58
Red table wine	.19	.42
Still table wine	.0	.21
Sparkling wine	.14	.27
Sherry or port	.14	.34
Beer drank last occassion	.0	.33
Spirit drank last occassion	.05	.14
Wine drank last occassion	.0	.19

OTHER BEVERAGES

SAGACITY:1	LAMBDA	CORRECTLY CLASSIFIED
Powdered fruit drinks	.11	.09
Liquid fruit drinks	.07	.15
Cold milk drinks	.03	.22
Cola	.0	.63
Lemonade	.01	.17
Tonic soda gingerale	.15	.41
Tea bags	.10	.20
Coffee	.05	.28
Yoghurt	.03	.19
Orange	.03	.21
Mixer last used	.27	.34

SAGACITY:2

	LAMBDA	CORRECTLY CLASSIFIED
Powdered fruit drinks	.09	.16
Liquid fruit drinks	.05	.14
Cold milk drinks	.03	.25
Cola	.0	.57
Lemonade	.02	.27
Tonic soda gingerale	.21	.39
Tea bags	.09	.23
Coffee	.06	.32
Yoghurt	.03	.19
Orange	.04	.28
Mixer last used	.21	.35

SAGACITY:3

	LAMBDA	CORRECTLY CLASSIFIED
Powdered fruit drinks	.08	.14
Liquid fruit drinks	.06	.13
Cold milk drinks	.03	.27
Cola	.0	.71
Lemonade	.02	.26
Tonic soda gingerale	.18	.38
Tea bags	.07	.20
Coffee	.05	.30
Yoghurt	.01	.18
Orange	.03	.20
Mixer last used	.21	.34

McNair Respondent

Powdered fruit drinks	.11	.14
Liquid fruit drinks	.07	.25
Cold milk drinks	.08	.31
Cola	.0	.72
Lemonade	.03	.34
Tonic soda gingerale	.06	.33
Tea bags	.08	.11
Coffee	.05	.22
Yoghurt	.03	.22
Orange	.0	.25
Mixer last used	.17	.27

NZ Interlaced Demographics:6

Powdered fruit drinks	.02	.07
Liquid fruit drinks	.02	.06
Cold milk drinks	.04	.20
Cola	.0	.37
Lemonade	.01	.08
Tonic soda gingerale	.0	.21
Tea bags	.06	.13
Coffee	.03	.20
Yoghurt	.01	.08
Orange	.0	.09
Mixer last used	.07	.13

NZ Interlaced Demographics:3

Powdered fruit drinks	.02	.07
Liquid fruit drinks	.0	.03
Cold milk drinks	.0	.10
Cola	.0	.12
Lemonade	.0	.05
Tonic soda gingerale	.0	.13
Tea bags	.0	.27
Coffee	.03	.18
Yoghurt	.01	.05
Orange	.0	.08
Mixer last used	.06	.13

Elley-Irving CWE

Powdered fruit drinks	.11	.19
Liquid fruit drinks	.02	.12
Cold milk drinks	.0	.18
Cola	.0	.48
Lemonade	.0	.11
Tonic soda gingerale	.08	.31
Tea bags	.03	.08
Coffee	.04	.27
Yoghurt	.02	.11
Orange	.03	.30
Mixer last used	.06	.27

McNair CWE

Powdered fruit drinks	.11	.10
Liquid fruit drinks	.03	.22
Cold milk drinks	.03	.23
Cola	.0	.59
Lemonade	.0	.21
Tonic soda gingerale	.15	.51
Tea bags	.09	.17
Coffee	.04	.27
Yoghurt	.02	.19
Orange	.04	.24
Mixer last used	.15	.23

Education Respondent

Powdered fruit drinks	.06	.05
Liquid fruit drinks	.0	.04
Cold milk drinks	.03	.12
Cola	.0	.46
Lemonade	.01	.10
Tonic soda gingerale	.0	.25
Tea bags	.01	.10
Coffee	.04	.23
Yoghurt	.02	.19
Orange	.0	.24
Mixer last used	.05	.07

Age Respondent

Powdered fruit drinks	.10	.23
Liquid fruit drinks	.07	.31
Cold milk drinks	.06	.29
Cola	.03	.57
Lemonade	.01	.17
Tonic soda gingerale	.21	.43
Tea bags	.11	.33
Coffee	.06	.29
Yoghurt	.07	.28
Orange	.10	.27
Mixer last used	.18	.22

NZSCO CWE

Powdered fruit drinks	.04	.22
Liquid fruit drinks	.01	.03
Cold milk drinks	.01	.18
Cola	.0	.52
Lemonade	.0	.13
Tonic soda gingerale	.13	.44
Tea bags	.06	.09
Coffee	.04	.29
Yoghurt	.0	.18
Orange	.06	.20
Mixer last used	.18	.22

Social Grade Respondent

Powdered fruit drinks	.05	.07
Liquid fruit drinks	.05	.04
Cold milk drinks	.03	.17
Cola	.0	.68
Lemonade	.02	.40
Tonic soda gingerale	.03	.21
Tea bags	.06	.06
Coffee	.02	.21
Yoghurt	.0	.08
Orange	.03	.12
Mixer last used	.11	.23

NZSCO Respondent

Powdered fruit drinks	.05	.15
Liquid fruit drinks	.02	.05
Cold milk drinks	.01	.15
Cola	.0	.50
Lemonade	.04	.46
Tonic soda gingerale	.0	.25
Tea bags	.07	.06
Coffee	.03	.23
Yoghurt	.01	.09
Orange	.0	.19
Mixer last used	.13	.26

Social Grade CWE:1

Powdered fruit drinks	.13	.16
Liquid fruit drinks	.01	.04
Cold milk drinks	.04	.14
Cola	.0	.17
Lemonade	.01	.09
Tonic soda gingerale	.13	.36
Tea bags	.05	.11
Coffee	.03	.16
Yoghurt	.07	.13
Orange	.0	.15
Mixer last used	.14	.17

Social Grade CWE:2

Powdered fruit drinks	.14	.25
Liquid fruit drinks	.01	.07
Cold milk drinks	.04	.16
Cola	.0	.18
Lemonade	.01	.10
Tonic soda gingerale	.0	.33
Tea bags	.02	.12
Coffee	.03	.15
Yoghurt	.02	.15
Orange	.03	.27
Mixer last used	.09	.24

Income Respondent

Powdered fruit drinks	.05	.18
Liquid fruit drinks	.04	.11
Cold milk drinks	.01	.15
Cola	.0	.17
Lemonade	.0	.09
Tonic soda gingerale	.03	.25
Tea bags	.02	.15
Coffee	.01	.25
Yoghurt	.05	.26
Orange	.01	.20
Mixer last used	.06	.17

Income Household

Powdered fruit drinks	.02	.08
Liquid fruit drinks	.0	.04
Cold milk drinks	.0	.14
Cola	.0	.49
Lemonade	.0	.10
Tonic soda gingerale	.0	.20
Tea bags	.02	.14
Coffee	.05	.22
Yoghurt	.02	.04
Orange	.01	.30
Mixer last used	.06	.11

PERSONAL PRODUCTS

	LAMBDA	CORRECTLY CLASSIFIED

SAGACITY:1

	LAMBDA	CORRECTLY CLASSIFIED
Hair Shampoo	.04	.13
Hair conditioner	.09	.23
Toothpaste	.03	.14
Deodorant	.02	.24
After Shave	.15	.33

SAGACITY:2

Hair Shampoo	.04	.11
Hair conditioner	.09	.23
Toothpaste	.03	.14
Deodorant	.03	.23
After Shave	.11	.27

SAGACITY:3

Hair Shampoo	.04	.07
Hair conditioner	.10	.23
Toothpaste	.03	.14
Deodorant	.03	.24
After Shave	.09	.32

McNair Respondent

Hair Shampoo	.03	.09
Hair conditioner	.10	.17
Toothpaste	.04	.14
Deodorant	.08	.22
After Shave	.09	.32

NZ Interlaced Demographics:6

Hair Shampoo	.01	.06
Hair conditioner	.03	.15
Toothpaste	.03	.19
Deodorant	.01	.13
After Shave	.02	.23

NZ Interlaced Demographics:3

Hair Shampoo	.01	.02
Hair conditioner	.02	.14
Toothpaste	.01	.05
Deodorant	.0	.23
After Shave	.0	.10

Elley-Irving

Hair Shampoo	.01	.11
Hair conditioner	.03	.16
Toothpaste	.05	.15
Deodorant	.0	.17
After Shave	.0	.23

McNair CWE

Hair Shampoo	.03	.09
Hair conditioner	.09	.16
Toothpaste	.04	.17
Deodorant	.01	.18
After Shave	.07	.26

Education Respondent

Hair Shampoo	.02	.07
Hair conditioner	.01	.17
Toothpaste	.01	.05
Deodorant	.0	.10
After Shave	.0	.21

Age Respondent

Hair Shampoo	.03	.10
Hair conditioner	.11	.27
Toothpaste	.06	.25
Deodorant	.03	.25
After Shave	.07	.30

NZSCO CWE

Hair Shampoo	.0	.08
Hair conditioner	.04	.23
Toothpaste	.03	.12
Deodorant	.02	.13
After Shave	.02	.29

Social Grade Respondent

Hair Shampoo	.04	.76
Hair conditioner	.06	.18
Toothpaste	.03	.13
Deodorant	.02	.27
After Shave	.06	.30

NZSCO Respondent

Hair Shampoo	.01	.06
Hair conditioner	.04	.13
Toothpaste	.02	.14
Deodorant	.01	.29
After Shave	.06	.25

Social Grade CWE:1

Hair Shampoo	.01	.06
Hair conditioner	.05	.21
Toothpaste	.02	.06
Deodorant	.04	.22
After Shave	.06	.29

Income Respondent

Hair Shampoo	.01	.04
Hair conditioner	.06	.18
Toothpaste	.02	.11
Deodorant	.0	.24
After Shave	.15	.32

Income Household

Hair Shampoo	.0	.05
Hair conditioner	.06	.13
Toothpaste	.0	.14
Deodorant	.0	.13
After Shave	.04	.29

Social Grade CWE:2

Hair Shampoo	.02	.07
Hair conditioner	.04	.24
Toothpaste	.02	.06
Deodorant	.0	.21
After Shave	.06	.30

TRAVEL

SAGACITY:1	LAMBDA	CORRECTLY CLASSIFIED
Airline	.02	.07
Reason for travel	.0	.65
Travel destination	.0	.18
Class used	.01	.16
Future airline	.03	.48
Future destination	.03	.34

SAGACITY:2		
Airline	.02	.18
Reason for travel	.0	.61
Travel destination	.0	.12
Class used	.03	.13
Future airline	.03	.42
Future destination	.04	.28

SAGACITY:3		
Airline	.02	.16
Reason for travel	.0	.67
Travel destination	.0	.12
Class used	.03	.12
Future airline	.03	.45
Future destination	.03	.29

McNair Respondent		
Airline	.0	.18
Reason for travel	.0	.74
Travel destination	.01	.13
Class used	.02	.13
Future airline	.0	.41
Future destination	.01	.24

NZ Interlaced demographics:6		
Airline	.0	.09
Reason for travel	.0	.74
Travel destination	.0	.07
Class used	.0	.07
Future airline	.0	.12
Future destination	.0	.15

Airline	.0	.03
Reason for travel	.0	.43
Travel destination	.0	.26
Class used	.0	.05
Future airline	.0	.30
Future destination	.0	.04

Elley-Irving CWE

Airline	.0	.04
Reason for travel	.0	.59
Travel destination	.0	.22
Class used	.0	.12
Future airline	.0	.16
Future destination	.0	.13

McNair CWE

Airline	.0	.07
Reason for travel	.0	.82
Travel destination	.01	.20
Class used	.01	.17
Future airline	.03	.24
Future destination	.01	.21

Education Respondent

Airline	.0	.05
Reason for travel	.0	.69
Travel destination	.0	.31
Class used	.0	.07
Future airline	.0	.16
Future destination	.0	.13

Age Respondent

Airline	.01	.40
Reason for travel	.0	.76
Travel destination	.0	.25
Class used	.02	.25
Future airline	.10	.21
Future destination	.04	.37

NZSCO CWE

Airline	.0	.24
Reason for travel	.0	.86
Travel destination	.0	.08
Class used	.03	.11
Future airline	.0	.16
Future destination	.03	.22

Social Grade Respondent

Airline	.0	.04
Reason for travel	.0	.76
Travel destination	.0	.07
Class used	.0	.06
Future airline	.0	.20
Future destination	.0	.21

NZSCO Respondent

Airline	.0	.07
Reason for travel	.0	.74
Travel destination	.02	.05
Class used	.0	.14
Future airline	.0	.51
Future destination	.0	.25

Social Grade CWE:1

Airline	.0	.15
Reason for travel	.0	.73
Travel destination	.01	.06
Class used	.0	.13
Future airline	.03	.14
Future destination	.0	.12

Social Grade CWE:2

Airline	.0	.07
Reason for travel	.0	.70
Travel destination	.01	.16
Class used	.0	.18
Future airline	.03	.15
Future destination	.0	.13

Income Respondent

Airline	.02	.05
Reason for travel	.0	.70
Travel destination	.0	.06
Class used	.01	.21
Future airline	.0	.24
Future destination	.01	.16

Income Household

Airline	.0	.08
Reason for travel	.0	.47
Travel destination	.0	.04
Class used	.0	.06
Future airline	.0	.10
Future destination	.0	.13

OTHER BEHAVIOUR

SAGACITY:1	LAMBDA	CORRECTLY CLASSIFIED
Jeans	.10	.38
Political support	.06	.26
Previous political support	.15	.50
New or used car	.27	.84
Purchaser of car	.0	.69
Car size	.15	.30
Type of wine container	.0	.29
Where beer drank	.02	.21

SAGACITY:2		
Jeans	.12	.37
Political support	.06	.30
Previous political support	.15	.45
New or used car	.33	.86
Purchaser of car	.0	.80
Car size	.10	.29
Type of wine container	.05	.33
Where beer drank	.02	.18

SAGACITY:3		
Jeans	.12	.35
Political support	.07	.30
Previous political support	.15	.49
New or used car	.33	.82
Purchaser of car	.0	.87
Car size	.12	.29
Type of wine container	.01	.28
Where beer drank	.02	.19

McNair Respondent		
Jeans	.09	.47
Political support	.09	.39
Previous political support	.13	.53
New or used car	.03	.78
Purchaser of car	.0	.90
Car size	.20	.34
Type of wine container	.01	.25
Where beer drank	.0	.31

NZ Interlaced Demographics:6

Jeans	.03	.24
Political support	.03	.18
Previous political support	.07	.41
New or used car	.0	.72
Purchaser of car	.0	.67
Car size	.08	.24
Type of wine container	.0	.17
Where beer drank	.0	.26

NZ Interlaced Demographics:3

Jeans	.03	.16
Political support	.03	.07
Previous political support	.07	.54
New or used car	.0	.77
Purchaser of car	.0	.40
Car size	.06	.19
Type of wine container	.0	.18
Where beer drank	.0	.04

Elley-Irving CWE

Jeans	.03	.26
Political support	.05	.11
Previous political support	.09	.48
New or used car	.0	.65
Purchaser of car	.0	.71
Car size	.08	.29
Type of wine container	.0	.24
Where beer drank	.0	.14

McNair CWE

Jeans	.01	.33
Political support	.09	.36
Previous political support	.12	.50
New or used car	.0	.71
Purchaser of car	.0	.83
Car size	.22	.41
Type of wine container	.0	.34
Where beer drank	.01	.17

Education Respondent

Jeans	.03	.22
Political support	.04	.38
Previous political support	.05	.40
New or used car	.07	.75
Purchaser of car	.0	.86
Car size	.06	.24
Type of wine container	.0	.13
Where beer drank	.0	.09

Age Respondent

Jeans	.10	.38
Political support	.03	.31
Previous political support	.09	.50
New or used car	.40	.88
Purchaser of car	.09	.83
Car size	.15	.34
Type of wine container	.01	.43
Where beer drank	.01	.20

NZSCO CWE

Jeans	.02	.34
Political support	.11	.28
Previous political support	.13	.54
New or used car	.11	.69
Purchaser of car	.0	.70
Car size	.14	.31
Type of wine container	.0	.31
Where beer drank	.0	.22

Social Grade Respondent

Jeans	.11	.35
Political support	.04	.35
Previous political support	.08	.28
New or used car	.0	.72
Purchaser of car	.0	.81
Car size	.15	.37
Type of wine container	.0	.22
Where beer drank	.0	.08

NZSCO Respondent

Jeans	.05	.27
Political support	.07	.21
Previous political support	.08	.33
New or used car	.04	.66
Purchaser of car	.0	.82
Car size	.16	.34
Type of wine container	.0	.25
Where beer drank	.0	.18

Social Grade CWE:1

Jeans	.01	.30
Political support	.05	.11
Previous political support	.08	.41
New or used car	.0	.77
Purchaser of car	.0	.36
Car size	.13	.30
Type of wine container	.0	.13
Where beer drank	.0	.07

Social Grade CWE:2

Jeans	.02	.32
Political support	.08	.17
Previous political support	.11	.49
New or used car	.0	.77
Purchaser of car	.0	.36
Car size	.11	.30
Type of wine container	.01	.16
Where beer drank	.0	.12

Income Respondent

Jeans	.0	.21
Political support	.03	.19
Previous political support	.05	.30
New or used car	.03	.79
Purchaser of car	.0	.80
Car size	.15	.30
Type of wine container	.0	.20
Where beer drank	.0	.14

	Income	Household
Jeans	.0	.13
Political support	.04	.10
Previous political support	.06	.48
New or used car	.0	.73
Purchaser of car	.0	.76
Car size	.09	.26
Type of wine container	.0	.19
Where beer drank	.0	.10

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