Loner
Laurie and Winifred Bauer

Question 40 asked for terms for people who do not have many friends:
40 A person who doesn't have any real friends can be called:

There were far fewer different responses for this question (just 78) than for most of the others in this section, and only one school failed to report a term for this. Relatively little grouping of terms was possible. One term was overwhelmingly reported: *loner*, from 124 schools. At the other end of the scale, there were a large number of terms of general abuse, usually reported only once or twice. After these had been removed, a very small number of terms remained. They, however, provided a considerable amount of interest.
The terms considered were: *reject* (52); *loser* (51); *otl* (= only the lonely) (20); *no mate* (17); *nif* (= no (intelligent) friends) (14); *retard* (13); *blender* (2). In addition, the abbreviation of *reject* to *rej* was considered. It occurred only where *reject* was also reported, and so is a sub-set of *reject*.
Reject is predominantly a North Island term, as the following figures show:

	North Island		**South Island**	
	No.	%	No.	%
Schools	93	62	57	38
Reject	44	85	8	15

Half of the South Island reports come from Southland, so that it is rare through most of the South Island. It is also less frequent in Auckland than might be expected, largely due to the presence of another competing term.
Loser was reported from Northland to Southland, with little sign of regionalism, although it was not reported from the West Coast, and there were few reports from Hawkes Bay.
Otl (= only the lonely) was almost exclusively a Northern Region form, although there were two reports from Wellington. It is very well established in Auckland (13 out of 17 schools reported it), and it was also reported three times from central Northland, and twice from the Bay of Plenty – timber belt area. The following figures show the regional distribution:

	Northern Region		**Central Region**		**Southern Region**	
	No.	% of total	No.	% of total	No.	% of total
Schools	57	38	77	51	14	9
Otl	18	90	2	10	0	0

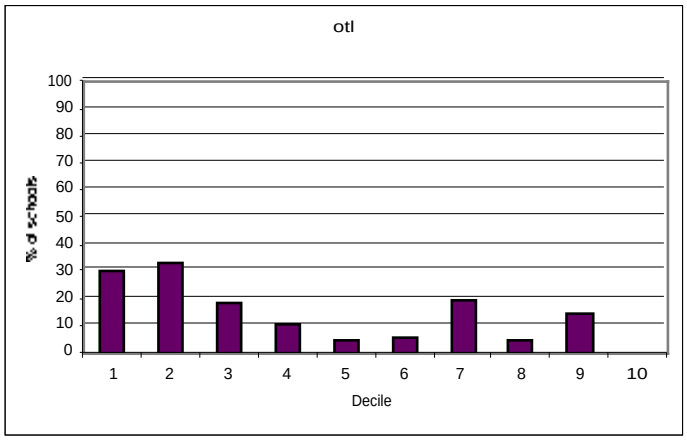
No mate was reported sporadically from the Coromandel to Southland. It is thus rather strangely distributed, with no reports from Auckland or Northland.
Nif (= no (intelligent) friends) is almost exclusively a Christchurch phenomenon.
Retard was reported from Northland to Southland, with little evidence of patterning.
Blender was reported twice from Wellington, and another Wellington school noted its use in another context.

Rej as the abbreviation of *reject* was reported 16 times. Almost all the reports came from the Eastern North Island, from row Y of our grid eastwards, and from the Bay of Plenty to the southern end of Hawkes Bay. This is a different region from any that have appeared in other sets of data. There are two isolated South Island reports, one from Christchurch and one from Southland. It would be interesting to know whether these are separate developments of the same abbreviation, or whether they have been taken to these areas by children moving. Thus the data from this question, yielded some evidence of regionalisation, and in particular, of regionalisation to small areas.

Statistical Analysis

The terms included in the statistical analysis were *blender*, *nif* and *otl*. The terms *reject* and *rej* were not included here, but included in a subsequent set of data, where reports of these terms from all questions were combined.

The term *otl* was shown to correlate significantly with low decile (p-value 0.0124). When the Southern Region (which did not report it) is deleted, it is even more significantly low decile (p-value 0.0107).



Because *otl* is not reported from the Southern Region, the program returned the finding that it was significantly more common in the Northern Region than the Southern Region, but did not return the equally obvious finding that it is significantly more common in the Central Region than the Southern Region. The Southern Region was deleted to obtain the Northern – Central contrast which was of most interest. This showed that there is significantly more use of *otl* in the Northern Region than the Central Region (p-value 0.0002). The sub-region analysis also showed that *otl* is reported only from WNth, Ak, CNIs and Wgtn. It is thus exclusively a North Island form. O*tl* is significantly urban rather than rural (p-value 0.0019; if the Southern Region is deleted the p-value is 0.0027). It was thus necessary to investigate many interactions. In all cases where Main Region was involved, the Southern Region was deleted, because this was the only way the comparison between the Northern and Central Regions could be obtained.

First, the interaction between Decile and Main Region was investigated. This showed that Main Region has a stronger effect than Decile. The p-value for Main Region variation when Decile is taken into account is 0.0007; the p-value for

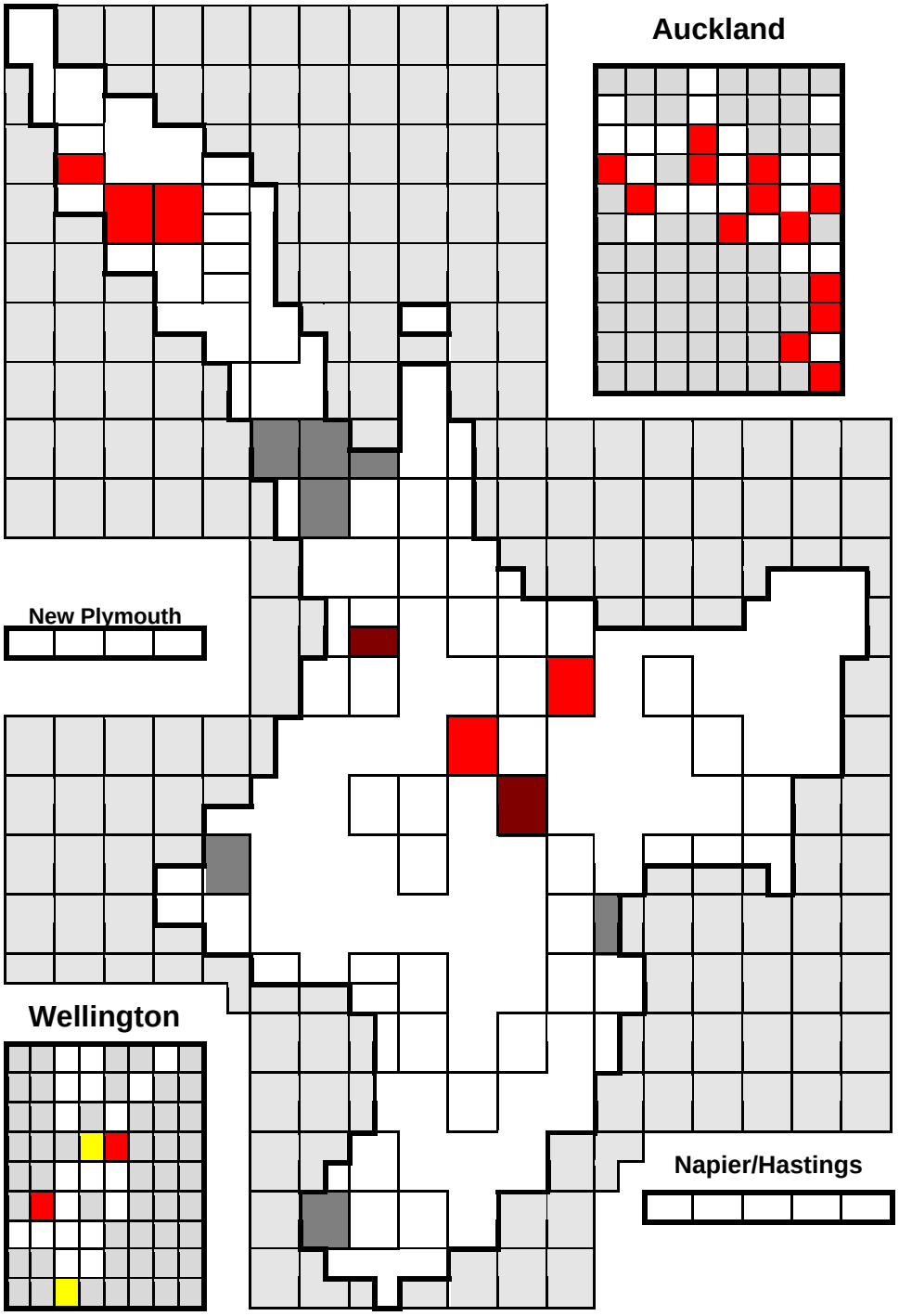
Decile variation when Main Region is taken into account is not significant (0.0938).
Next, the interaction between Decile and the Urban / Rural factor was investigated. This showed that Urban / Rural variation has a stronger effect, but both are significant. The p-value for Urban / Rural variation when Decile is taken into account is 0.0003; the p-value for Decile variation when the Urban / rural factor is taken into account is 0.0014.
The interaction between Decile and Island was also investigated. Because the Island correlation is absolute, it must be the stronger and no p-value was produced for Island variation when Decile is taken into account. The p-value for Decile variation when Island is taken into account was not significant (0.0589).
The interaction between Island and Main Region (Northern and Central only) was also investigated. For *otl*, the Island correlation is absolute, but the p-value for Main Region variation when Island is taken into account is still significant, at 0.0094).
When the interaction between Main Region (Northern and Central only) and the Urban / Rural factor was considered in relation to *otl*, both factors were shown to be highly significant, and there is little difference in their strength, although Main Region has a slightly smaller p-value. The p-value for Main Region variation when the Urban / Rural factor is taken into account is 0.0001; the p-value for Urban / Rural variation when Main Region is taken into account is 0.0002.
For *otl*, Island is absolute, and therefore stronger than the Urban / Rural effect, but the Urban / Rural effect is still significant when Island is taken into account (p-value 0.0029).
Overall, because the Island correlation is absolute, it has the strongest influence on *otl*, followed by Main Region, and then the Urban / Rural factor and lastly Decile.
Nif is also absent from the Southern Region, and so this region was deleted to obtain the Northern – Central contrast. This revealed that there is significantly more use of *nif* in the Central Region than the Northern Region (p-value 0.0404).
In terms of sub-regions, *nif* is only reported from CNIs, WCst and Chch, and there is less use of *nif* in CNIs than in Chch (p-value 0.0009) (obtained by deleting the two southernmost sub-regions, where *nif* was not reported). (There is also less use of it in WCst than in Chch, but the difference is not significant (p-value 0.0851). *Nif* is significantly more common in the South Island than the North (p-value 0.0015; if the Southern region is deleted, the p-value is 0.0003). It is also more common in Catholic than in non-Catholic schools (p-value 0.0359; however, if the Southern Region (which contains no Catholic schools) is deleted the p-value is no longer significant, at 0.0560). In addition, *nif* is significantly urban rather than rural (p-value 0.0112; if the Southern Region is deleted the p-value is 0.0146). There are thus many interactions to consider. As for *otl*, it was necessary to delete the Southern Region from all which involved Main Region, in order to obtain the necessary contrast between the Northern and Central regions.
First, the interaction between Main Region and Catholic was investigated in relation to *nif*. This showed that Main Region has a stronger effect than Catholicity, though neither effect is significant when the other is taken into account. The p-value for the Northern – Central contrast when Catholicity is

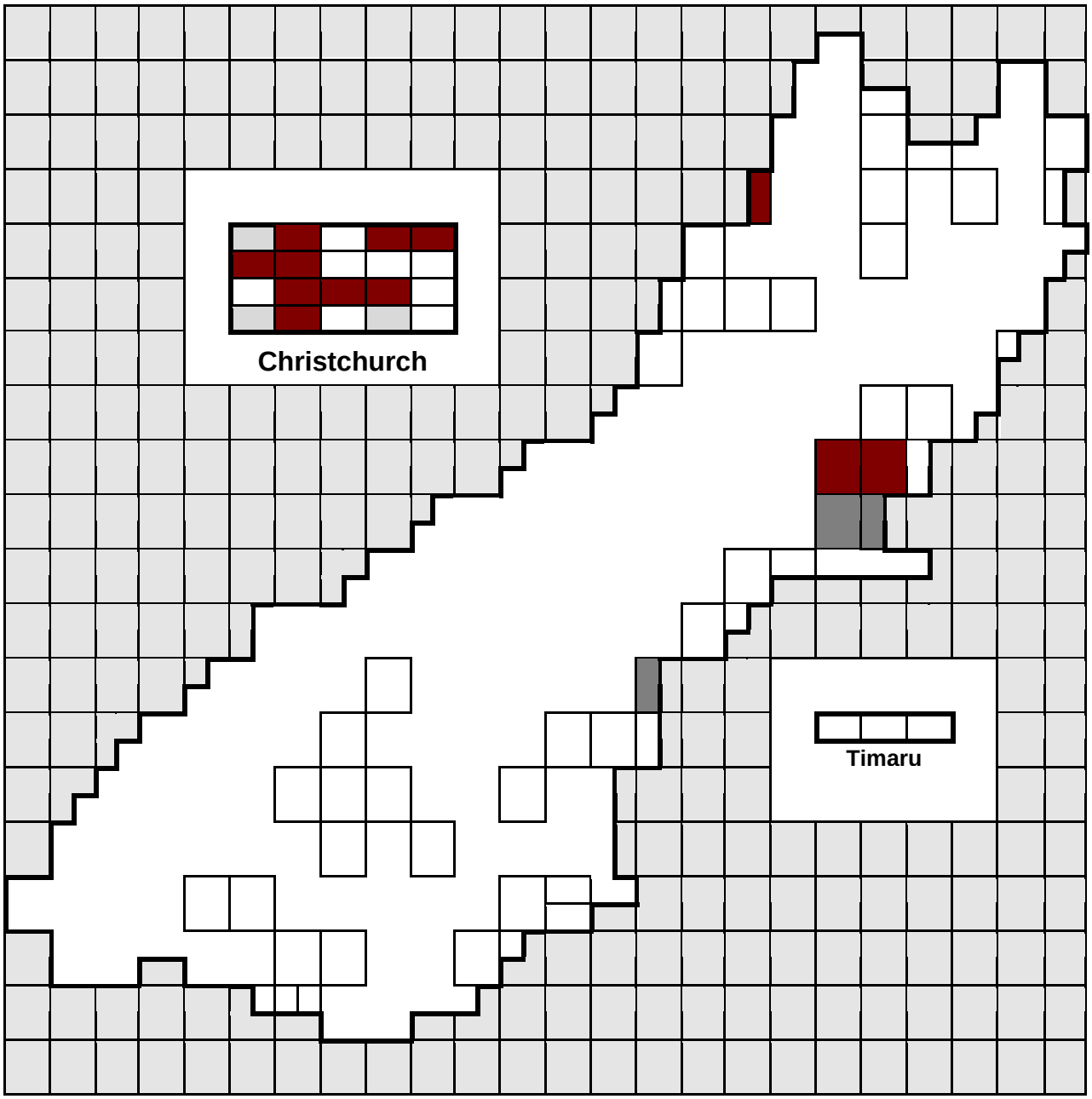
taken into account is 0.0573; the p-value for Catholicity when Main Region is taken into account is 0.1115.
For *nif*, the Urban / Rural factor is stronger than the Main Region factor. The p-value for Urban / Rural variation when Main Region is taken into account is 0.0195, while the p-value for Main Region variation when the Urban / Rural factor is taken into account is not significant (0.0649).
For *nif*, Island is probably stronger than Main Region, but the program did not produce a p-value for Main Region variation when Island is taken into account, but indicated a large sampling error in the Northern Region. The p-value for Island variation when Main Region is taken into account is 0.0001.
The interaction between Catholic and Island was considered in relation to *nif*. This showed that Island has a stronger influence. The p-value for Island variation when Catholicity is taken into account is 0.0015; the p-value for Catholicity when Island is taken into account is 0.0476.
For *nif*, Island is stronger than the Urban / Rural factor. The p-value for Island variation taking urban / rural variation into account is 0.0006; the p-value for Urban / Rural variation taking Island variation into account is 0.0027. Both, however, are significant.
The interaction between Urban / Rural and Catholic was investigated in relation to *nif*. This showed that the Urban / Rural factor is considerably stronger than Catholicity. The p-value for Urban / Rural variation when Catholicity is taken into account is 0.0197, but the p-value for Catholicity when Urban / Rural variation is taken into account was not significant.
Overall for *nif*, the correlation with Island is strongest, followed by the Urban / Rural factor, then Main Region (i.e. predominance in the Central Region), and then Catholicity. By chance, in Christchurch, where this term predominates, (9 out of 11 Christchurch schools reported it, as well as two schools in the area immediately north of the city) we have a large number of Catholic schools in our sample, and the two North Island schools where it is reported are also Catholic schools, suggesting that it was exported by a Catholic school student from Christchurch moving north.
Blender was not reported from either of the two southernmost sub-regions, and these were deleted in the hope of obtaining slightly better results. This analysis confirmed that *blender* is exclusively found in Wgtn, and is thus exclusively North Island. It is also exclusively urban. Because all these correlations are absolute, no useful information about relative strength could be obtained. *Blender* is exclusively reported from the Central Region, and more specifically from Wellington, and is thus North Island and urban exclusively. Since the restriction to Wellington accounts for the others, this must be taken as the most important factor.

Summary

These terms are amongst the most complex in our data in terms of the number of factors significantly influencing their distribution. This is the only set of data from the ‘personal stereotypes’ section of the questionnaire which produced strongly regionalised data. The data on *nif* is particularly interesting for the window it provides on the likely export patterns of words.
A map of the interesting forms follows.

Map: *otl, nif, blender*





Key
Note that the insets are not to scale, nor all on the same scale for practical reasons. Each box represents one school in both urban and rural areas.

	otl		See urban map insert
	nif		blender

Q40 Statistics: Loners

Loners by Decile

Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	blender	-3.7654	1.5816	-6.8653	-0.6655	-2.381	0.0173
item	nif	-3.3157	0.7539	-4.7935	-1.8380	-4.398	0.0000
item	otl	-0.6154	0.4987	-1.5929	0.3621	-1.234	0.2173
decile*item	blender	-0.0999	0.2812	-0.6510	0.4512	-.3554	0.7223
decile*item	nif	0.1662	0.1036	-0.0369	0.3693	1.6040	0.1087
decile*item	otl	-0.2470	0.0988	-0.4407	-0.0533	-2.500	**0.0124**
scale	1.0015	.	.	.	.	.	

Loners by Main Region

Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-27.3653	0.7164	1459.3177	0.0001
item	nif	1	-27.3653	0.3138	7603.7973	0.0001
item	otl	1	-27.3634	0.7164	1459.1128	0.0001
item*region1	blender, 1	1	-0.0000	115975.683	0.0000	1.0000
item*region1	blender, 2	0	23.7277	0.0000	.	.
item*region1	blender, 3	0	0.0000	0.0000	.	.
item*region1	nif, 1	1	24.0511	0.7853	938.0357	**0.0001**
item*region1	nif, 2	0	25.6605	0.0000	.	.
item*region1	nif, 3	0	0.0000	0.0000	.	.
item*region1	otl, 1	1	26.5902	0.7709	1189.5913	**0.0001**
item*region1	otl, 2	0	23.7258	0.0000	.	.
item*region1	otl 3	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Sub-Region

Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-27.3653	0.7416	1361.5609	0.0001
item	nif	1	-27.3653	0.4835	3203.4595	0.0001
item	otl	1	-27.3649	0.7416	1361.5199	0.0001
item*region2	blender, 1	1	-0.0000	357461.063	0.0000	1.0000
item*region2	blender, 2	1	-0.0000	357461.063	0.0000	1.0000
item*region2	blender, 3	1	-0.0000	200875.776	0.0000	1.0000
item*region2	blender, 4	1	-0.0000	171718.740	0.0000	1.0000
item*region2	blender, 5	1	-0.0000	252763.142	0.0000	1.0000
item*region2	blender, 6	0	25.0627	0.0000	.	.
item*region2	blender, 7	1	-0.0000	291865.736	0.0000	1.0000
item*region2	blender, 8	1	-0.0000	357461.063	0.0000	1.0000
item*region2	blender, 9	1	-0.0000	206380.241	0.0000	1.0000
item*region2	blender, 10	1	-0.0000	276888.149	0.0000	1.0000
item*region2	blender, 11	0	0.0000	0.0000	.	.
item*region2	nif, 1	1	-0.0000	357461.063	0.0000	1.0000
item*region2	nif, 2	1	-0.0000	357461.063	0.0000	1.0000
item*region2	nif, 3	1	-0.0000	200875.776	0.0000	1.0000
item*region2	nif, 4	1	24.8804	0.8806	798.3088	**0.0001**
item*region2	nif, 5	1	-0.0000	252763.142	0.0000	1.0000
item*region2	nif, 6	1	-0.0000	186677.952	0.0000	1.0000
item*region2	nif ,7	1	-0.0000	291865.736	0.0000	1.0000
item*region2	nif,8	1	25.7559	1.1974	462.6733	**0.0001**
item*region2	nif, 9	0	27.8173	0.0000	.	.
item*region2	nif, 10	1	-0.0000	276888.149	0.0000	1.0000
item*region2	nif, 11	0	0.0000	0.0000	.	.
item*region2	otl, 1	1	27.3649	1.1030	615.4816	**0.0001**
item*region2	otl, 2	1	-0.0005	357461.063	0.0000	1.0000
item*region2	otl, 3	1	28.1381	0.8908	997.6820	**0.0001**
item*region2	otl, 4	1	24.8800	1.0448	567.0343	**0.0001**
item*region2	otl, 5	1	-0.0005	252763.142	0.0000	1.0000
item*region2	otl, 6	0	25.0623	0.0000	.	.
item*region2	otl, 7	1	-0.0005	291865.736	0.0000	1.0000
item*region2	otl, 8	1	-0.0005	357461.063	0.0000	1.0000
item*region2	otl, 9	1	-0.0005	206380.241	0.0000	1.0000
item*region2	otl, 10	1	-0.0005	276888.149	0.0000	1.0000
item*region2	otl, 11	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Island

Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-27.3653	0.7148	1465.5116	0.0001
item	nif	1	-1.3218	0.3249	16.5509	0.0001
item	otl	1	-27.3653	0.2524	11756.3085	0.0001
item*island	blender, 1	0	23.5476	0.0000	.	.
item*island	blender, 2	0	0.0000	0.0000	.	.
item*island	nif, 1	1	-2.4960	0.7852	10.1044	**0.0015**
item*island	nif, 2	0	0.0000	0.0000	.	.
item*island	otl, 1	0	26.0706	0.0000	.	.
item*island	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Catholic

Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.00	.	.	.	.	.	
item	blender	-2.7081	1.0328	-4.7323	-0.6838	-2.622	0.0087
item	nif	-1.0986	0.5774	-2.2302	0.0330	-1.903	0.0571
item	otl	-2.7081	1.0328	-4.7323	-0.6838	-2.622	0.0087
item*catholic	blender, 1	-2.1595	1.4403	-4.9823	0.6634	-1.499	0.1338
item*catholic	blender, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*catholic	nif, 1	-1.3946	0.6645	-2.6970	-0.0921	-2.099	**0.0359**
item*catholic	nif, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*catholic	otl, 1	0.8710	1.0635	-1.2134	2.9555	0.8190	0.4128
item*catholic	otl, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	1.00	.	.	.	.	.	

Loners by Urban/Rural

Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-3.3499	0.7194	21.6829	0.0001
item	nif	1	-1.5892	0.3470	20.9759	0.0001
item	otl	1	-1.0761	0.2990	12.9547	0.0003
item*urb_rur	blender, 1	1	-24.0154	94418.0751	0.0000	0.9998
item*urb_rur	blender, 2	0	0.0000	0.0000	.	.
item*urb_rur	nif, 1	1	-1.7310	0.6825	6.4328	**0.0112**
item*urb_rur	nif, 2	0	0.0000	0.0000	.	.
item*urb_rur	otl, 1	1	-1.7089	0.5493	9.6780	**0.0019**
item*urb_rur	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners in Northern and Central Regions only

Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-3.6376	0.7164	25.7855	0.0001
item	nif	1	-1.7047	0.3138	29.5088	0.0001
item	otl	1	-3.6376	0.7164	25.7855	0.0001
item*region1	blender, 1	1	-22.7277	70342.8077	0.0000	0.9997
item*region1	blender, 2	0	0.0000	0.0000	.	.
item*region1	nif, 1	1	-1.6094	0.7853	4.2005	**0.0404**
item*region1	nif, 2	0	0.0000	0.0000	.	.
item*region1	otl, 1	1	2.8644	0.7709	13.8045	**0.0002**
item*region1	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners in Sub-Regions 1-9 only

Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-27.3653	0.7416	1361.5634	0.0001
item	nif	1	0.4520	0.4835	0.8739	0.3499
item	otl	1	-27.3650	0.7416	1361.5346	0.0001
item*region2	blender, 1	1	-0.0000	357461.063	0.0000	1.0000
item*region2	blender, 2	1	-0.0000	357461.063	0.0000	1.0000
item*region2	blender, 3	1	-0.0000	200875.776	0.0000	1.0000
item*region2	blender, 4	1	-0.0000	171718.740	0.0000	1.0000
item*region2	blender, 5	1	-0.0000	252763.142	0.0000	1.0000
item*region2	blender, 6	0	25.0627	0.0000	.	.
item*region2	blender, 7	1	-0.0000	291865.736	0.0000	1.0000
item*region2	blender, 8	1	-0.0000	357461.063	0.0000	1.0000
item*region2	blender, 9	0	0.0000	0.0000	.	.
item*region2	nif, 1	1	-27.8173	357461.063	0.0000	0.9999
item*region2	nif, 2	1	-27.8173	357461.063	0.0000	0.9999
item*region2	nif, 3	1	-27.8173	200875.776	0.0000	0.9999
item*region2	nif, 4	1	-2.9369	0.8806	11.1232	0.0009
item*region2	nif, 5	1	-27.8173	252763.142	0.0000	0.9999
item*region2	nif, 6	1	-27.8173	186677.952	0.0000	0.9999
item*region2	nif, 7	1	-27.8173	291865.736	0.0000	0.9999
item*region2	nif, 8	1	-2.0614	1.1974	2.9638	0.0851
item*region2	nif, 9	0	0.0000	0.0000	.	.
item*region2	otl, 1	1	27.3650	1.1030	615.4882	**0.0001**
item*region2	otl, 2	1	-0.0003	357461.063	0.0000	1.0000
item*region2	otl, 3	1	28.1382	0.8908	997.6925	**0.0001**
item*region2	otl, 4	1	24.8801	1.0448	567.0410	**0.0001**
item*region2	otl, 5	1	-0.0003	252763.142	0.0000	1.0000

item*region2	otl, 6	0	25.0624	0.0000	.	.
item*region2	otl, 7	1	-0.0003	291865.736	0.0000	1.0000
item*region2	otl, 8	1	-0.0003	357461.063	0.0000	1.0000
item*region2	otl, 9	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Decile in Northern and Central Regions only

Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	blender	-3.6340	1.5970	-6.7640	-0.5040	-2.276	0.0229
item	nif	-3.1958	0.7601	-4.6857	-1.7060	-4.204	0.0000
item	otl	-0.4230	0.5123	-1.4270	0.5810	-.8258	0.4089
decile*item	blender	-0.1042	0.2843	-0.6613	0.4530	-.3664	0.7140
decile*item	nif	0.1656	0.1047	-0.0396	0.3707	1.5820	0.1136
decile*item	otl	-0.2592	0.1015	-0.4581	-0.0603	-2.554	**0.0107**
scale	1.0023	.	.	.	.	.	

Loners by Island in Northern and Central Regions only

Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-27.3653	0.7149	1465.1615	0.0001
item	nif	1	-0.9491	0.3400	7.7926	0.0052
item	otl	1	-27.3653	0.2528	11721.2912	0.0001
item*island	blender, 1	0	23.5587	0.0000	.	.
item*island	blender, 2	0	0.0000	0.0000	.	.
item*island	nif, 1	1	-2.8576	0.7916	13.0297	**0.0003**
item*island	nif, 2	0	0.0000	0.0000	.	.
item*island	otl, 1	0	26.0844	0.0000	.	.
item*island	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Catholic in Northern and Central Regions only

Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Est.	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	blender	-2.7081	1.0328	-4.7323	-0.6838	-2.622	0.0087
item	nif	-1.0986	0.5774	-2.2302	0.0330	-1.903	0.0571
item	otl	-2.7081	1.0328	-4.7323	-0.6838	-2.622	0.0087
item*catholic	blender, 1	-2.0455	1.4406	-4.8690	0.7780	-1.420	0.1556
item*catholic	blender, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*catholic	nif, 1	-1.2716	0.6653	-2.5757	0.0324	-1.911	0.0560

item*catholic	nif, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*catholic	otl, 1	1.0033	1.0641	-1.0823	3.0889	0.9429	0.3458
item*catholic	otl, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	1.0000	.	.	.	.	.	

Loners by Urban/Rural in Northern and Central Regions only

Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-3.2771	0.7203	20.6983	0.0001
item	nif	1	-1.5041	0.3496	18.5093	0.0001
item	otl	1	-0.9808	0.3028	10.4948	0.0012
item*urb_rur	blender, 1	1	-24.0882	101105.257	0.0000	0.9998
item*urb_rur	blender, 2	0	0.0000	0.0000	.	.
item*urb_rur	nif, 1	1	-1.6740	0.6852	5.9692	**0.0146**
item*urb_rur	nif, 2	0	0.0000	0.0000	.	.
item*urb_rur	otl, 1	1	-1.6582	0.5531	8.9874	**0.0027**
item*urb_rur	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Catholic and Main Region, Model 2 (no sig. figs. Model 1)

Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-25.6043	1.0445	600.9491	0.0001
item	nif	1	-26.2800	0.5979	1931.6693	0.0001
item	otl	1	-27.9432	1.2497	499.9508	0.0001
item*region1	blender, 1	1	-0.2528	114519.624	0.0000	1.0000
item*region1	blender, 2	0	23.2064	0.0000	.	.
item*region1	blender, 3	0	0.0000	0.0000	.	.
item*region1	nif, 1	1	23.9452	0.7921	913.8811	**0.0001**
item*region1	nif, 2	0	25.4512	0.0000	.	.
item*region1	nif, 3	0	0.0000	0.0000	.	.
item*region1	otl, 1	1	26.5725	0.7750	1175.4859	**0.0001**
item*region1	otl, 2	0	23.8135	0.0000	.	.
item*region1	otl, 3	0	0.0000	0.0000	.	.
item*catholic	blender, 1	1	-1.7610	1.4514	1.4721	0.2250
item*catholic	blender, 2	0	0.0000	0.0000	.	.
item*catholic	nif, 1	1	-1.0854	0.6820	2.5331	0.1115
item*catholic	nif, 2	0	0.0000	0.0000	.	.
item*catholic	otl, 1	1	0.5769	1.1325	0.2595	0.6105
item*catholic	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Catholic and Island, Model 2 (no sig. figs. Model 1)
Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-25.6997	1.0607	587.0890	0.0001
item	nif	1	-0.0707	0.6849	0.0107	0.9177
item	otl	1	-28.0968	1.0607	701.7143	0.0001
item*island	blender, 1	0	23.6203	0.0000	.	.
item*island	blender, 2	0	0.0000	0.0000	.	.
item*island	nif, 1	1	-2.5267	0.7975	10.0390	**0.0015**
item*island	nif, 2	0	0.0000	0.0000	.	.
item*island	otl, 1	0	26.0173	0.0000	.	.
item*island	otl, 2	0	0.0000	0.0000	.	.
item*catholic	blender, 1	1	-2.3150	1.4620	2.5074	0.1133
item*catholic	blender, 2	0	0.0000	0.0000	.	.
item*catholic	nif, 1	1	-1.4730	0.7435	3.9250	**0.0476**
item*catholic	nif, 2	0	0.0000	0.0000	.	.
item*catholic	otl, 1	1	0.8109	1.0937	0.5498	0.4584
item*catholic	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Urban/Rural and Island, Model 2 (no sig. figs. Model 1)
Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-27.0672	0.7255	1392.0030	0.0001
item	nif	1	-0.2634	0.4531	0.3380	0.5610
item	otl	1	-27.5150	0.3266	7097.6039	0.0001
item*island	blender, 1	0	24.1228	0.0000	.	.
item*island	blender, 2	0	0.0000	0.0000	.	.
item*island	nif, 1	1	-2.8248	0.8275	11.6525	**0.0006**
item*island	nif, 2	0	0.0000	0.0000	.	.
item*island	otl, 1	0	27.0042	0.0000	.	.
item*island	otl, 2	0	0.0000	0.0000	.	.
item*urb_rur	blender, 1	1	-24.7590	145191.199	0.0000	0.9999
item*urb_rur	blender, 2	0	0.0000	0.0000	.	.
item*urb_rur	nif, 1	1	-2.2009	0.7330	9.0164	**0.0027**
item*urb_rur	nif, 2	0	0.0000	0.0000	.	.
item*urb_rur	otl, 1	1	-1.7084	0.5731	8.8870	**0.0029**
item*urb_rur	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Main Region (N & C only) and Island, Model 2 (no sig. figs. Model 1)
Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-28.3654	0.7282	1517.2348	0.0001
item	nif	1	-0.9491	0.3400	7.7926	0.0052
item	otl	1	-28.3657	0.7282	1517.2704	0.0001
item*island	blender, 1	0	25.5620	0.0000	.	.
item*island	blender, 2	0	0.0000	0.0000	.	.
item*island	nif, 1	1	-27.4163	0.7961	1185.9968	**0.0001**
item*island	nif, 2	0	0.0000	0.0000	.	.
item*island	otl, 1	0	25.5623	0.0000	.	.
item*island	otl, 2	0	0.0000	0.0000	.	.
item*region1	blender, 1	1	-25.5620	191211.576	0.0000	0.9999
item*region1	blender, 2	0	0.0000	0.0000	.	.
item*region1	nif, 1	0	25.0512	0.0000	.	.
item*region1	nif, 2	0	0.0000	0.0000	.	.
item*region1	otl, 1	1	2.0302	0.7820	6.7401	**0.0094**
item*region1	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Main Region (N & C only) and Urban/Rural, Model 2 (no sig. figs. Model 1)
Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-2.7726	0.7289	14.4701	0.0001
item	nif	1	-1.0958	0.3862	8.0510	0.0045
item	otl	1	-2.8885	0.7280	15.7443	0.0001
item*region1	blender, 1	1	-24.3705	170980.708	0.0000	0.9999
item*region1	blender, 2	0	0.0000	0.0000	.	.
item*region1	nif, 1	1	-1.4822	0.8028	3.4088	0.0649
item*region1	nif, 2	0	0.0000	0.0000	.	.
item*region1	otl, 1	1	3.4161	0.8283	17.0100	**0.0001**
item*region1	otl, 2	0	0.0000	0.0000	.	.
item*urb_rur	blender, 1	1	-24.7992	153503.015	0.0000	0.9999
item*urb_rur	blender, 2	0	0.0000	0.0000	.	.
item*urb_rur	nif, 1	1	-1.6200	0.6937	5.4544	**0.0195**
item*urb_rur	nif, 2	0	0.0000	0.0000	.	.
item*urb_rur	otl, 1	1	-2.3686	0.6419	13.6165	**0.0002**
item*urb_rur	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Island and Catholic, Model 2 (no sig. figs. Model 1)
Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-25.6997	1.0607	587.0890	0.0001
item	nif	1	-0.0707	0.6849	0.0107	0.9177
item	otl	1	-28.0968	1.0607	701.7143	0.0001
item*island	blender, 1	0	23.6203	0.0000	.	.
item*island	blender, 2	0	0.0000	0.0000	.	.
item*island	nif, 1	1	-2.5267	0.7975	10.0390	**0.0015**
item*island	nif, 2	0	0.0000	0.0000	.	.
item*island	otl, 1	0	26.0173	0.0000	.	.
item*island	otl, 2	0	0.0000	0.0000	.	.
item*catholic	blender, 1	1	-2.3150	1.4620	2.5074	0.1133
item*catholic	blender, 2	0	0.0000	0.0000	.	.
item*catholic	nif, 1	1	-1.4730	0.7435	3.9250	**0.0476**
item*catholic	nif, 2	0	0.0000	0.0000	.	.
item*catholic	otl, 1	1	0.8109	1.0937	0.5498	0.4584
item*catholic	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Urban/Rural and Catholic, Model 2 (no sig. figs. Model 1)
Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-2.3026	1.0488	4.8199	0.0281
item	nif	1	-0.7334	0.6051	1.4691	0.2255
item	otl	1	-2.3843	1.0431	5.2249	0.0223
item*catholic	blender, 1	1	-1.4816	1.4570	1.0341	0.3092
item*catholic	blender, 2	0	0.0000	0.0000	.	.
item*catholic	nif, 1	1	-1.0579	0.7041	2.2578	0.1329
item*catholic	nif, 2	0	0.0000	0.0000	.	.
item*catholic	otl, 1	1	1.4913	1.0858	1.8865	0.1696
item*catholic	otl, 2	0	0.0000	0.0000	.	.
item*urb_rur	blender,1	1	-23.7378	93303.5505	0.0000	0.9998
item*urb_rur	blender,2	0	0.0000	0.0000	.	.
item*urb_rur	nif, 1	1	-1.6274	0.6980	5.4361	**0.0197**
item*urb_rur	nif, 2	0	0.0000	0.0000	.	.
item*urb_rur	otl, 1	1	-1.8437	0.5632	10.7174	**0.0011**
item*urb_rur	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Decile and Main Region (N & C only), Model 2 (no sig. figs. Model 1)
Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-2.4490	1.5457	2.5105	0.1131
item	nif	1	-2.4448	0.8528	8.2179	0.0041
item	otl	1	-2.6167	0.9034	8.3889	0.0038
decile*item	blender	1	-0.2070	0.2712	0.5828	0.4452
decile*item	nif	1	0.1105	0.1140	0.9394	0.3324
decile*item	otl	1	-0.1745	0.1041	2.8082	0.0938
item*region1	blender, 1	1	-24.0123	114074.964	0.0000	0.9998
item*region1	blender, 2	0	0.0000	0.0000	.	.
item*region1	nif, 1	1	-1.4540	0.8004	3.3001	0.0693
item*region1	nif, 2	0	0.0000	0.0000	.	.
item*region1	otl, 1	1	2.6595	0.7800	11.6256	**0.0007**
item*region1	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Decile and Urban/Rural, Model 2 (no sig. figs. Model 1)
Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-2.4044	1.4278	2.8359	0.0922
item	nif	1	-2.4794	0.8804	7.9314	0.0049
item	otl	1	0.8107	0.6274	1.6698	0.1963
decile*item	blender	1	-0.1649	0.2436	0.4583	0.4984
decile*item	nif	1	0.1315	0.1135	1.3432	0.2465
decile*item	otl	1	-0.3263	0.1023	10.1752	**0.0014**
item*urb_rur	blender, 1	1	-24.1610	93459.2288	0.0000	0.9998
item*urb_rur	blender, 2	0	0.0000	0.0000	.	.
item*urb_rur	nif, 1	1	-1.5865	0.6955	5.2041	**0.0225**
item*urb_rur	nif, 2	0	0.0000	0.0000	.	.
item*urb_rur	otl, 1	1	-2.1740	0.5968	13.2687	**0.0003**
item*urb_rur	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Main Region (N & C only) and Catholic, Model 2 (no sig. figs. Model 1)
Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-2.3979	1.0445	5.2707	0.0217
item	nif	1	-0.8288	0.5979	1.9211	0.1657
item	otl	1	-4.1297	1.2497	10.9198	0.0010
item*region1	blender, 1	1	-23.4592	114519.624	0.0000	0.9998
item*region1	blender, 2	0	0.0000	0.0000	.	.
item*region1	nif, 1	1	-1.5060	0.7921	3.6149	0.0573
item*region1	nif, 2	0	0.0000	0.0000	.	.
item*region1	otl, 1	1	2.7590	0.7750	12.6722	**0.0004**
item*region1	otl, 2	0	0.0000	0.0000	.	.
item*catholic	blender, 1	1	-1.7610	1.4514	1.4721	0.2250
item*catholic	blender, 2	0	0.0000	0.0000	.	.
item*catholic	nif, 1	1	-1.0854	0.6820	2.5331	0.1115
item*catholic	nif, 2	0	0.0000	0.0000	.	.
item*catholic	otl, 1	1	0.5769	1.1325	0.2595	0.6105
item*catholic	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners by Decile and Island, Model 2 (no sig. figs. Model 1)
Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	blender	1	-27.1245	1.4429	353.3680	0.0001
item	nif	1	-2.0105	0.9047	4.9381	0.0263
item	otl	1	-26.2651	0.4966	2797.3566	0.0001
decile*item	blender	1	-0.0374	0.2503	0.0223	0.8813
decile*item	nif	1	0.1028	0.1229	0.7002	0.4027
decile*item	otl	1	-0.1789	0.0947	3.5671	0.0589
item*island	blender, 1	0	23.4994	0.0000	.	.
item*island	blender, 2	0	0.0000	0.0000	.	.
item*island	nif, 1	1	-2.3944	0.7918	9.1437	**0.0025**
item*island	nif, 2	0	0.0000	0.0000	.	.
item*island	otl, 1	0	25.8444	0.0000	.	.
item*island	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Loners in *nif* Sub-Regions by Sub-Region and Catholic
Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	bln	1	-27.3653	353077.779	0.0000	0.9999
item	nif	1	1.9190	1.1041	3.0210	0.0822

item	otl	1	-50.9082	0.7400	4732.5664	0.0001
item*region2	bln, 4	1	0.0000	269055.629	0.0000	1.0000
item*region2	bln, 8	1	0.0000	416718.202	0.0000	1.0000
item*region2	bln, 9	0	0.0000	0.0000	.	.
item*region2	nif, 4	1	-3.0693	0.9371	10.7267	**0.0011**
item*region2	nif, 8	1	-2.6214	1.3688	3.6677	0.0555
item*region2	nif, 9	0	0.0000	0.0000	.	.
item*region2	otl, 4	0	24.7772	0.0000	.	.
item*region2	otl, 8	1	0.2828	337633.858	0.0000	1.0000
item*region2	otl, 9	0	0.0000	0.0000	.	.
item*catholic	bln, 1	1	0.0000	343776.678	0.0000	1.0000
item*catholic	bln, 2	0	0.0000	0.0000	.	.
item*catholic	nif, 1	1	-1.6822	1.0746	2.4504	0.1175
item*catholic	nif, 2	0	0.0000	0.0000	.	.
item*catholic	otl, 1	0	23.7796	0.0000	.	.
item*catholic	otl, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Nif by Urban/Rural in Sub-Regions 4, 8, 9 only
Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	nif	1.3332	0.6659	0.0280	2.6384	2.0019	0.0453
item*region2	nif, 4	-2.0698	1.0037	-4.0370	-0.1026	-2.062	0.0392
item*region2	nif, 8	-0.0962	1.3889	-2.8184	2.6261	-.0692	0.9448
item*region2	nif, 9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*urb_rur	nif, 1	-2.6233	0.9717	-4.5279	-0.7187	-2.700	**0.0069**
item*urb_rur	nif, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	1.0617	.	.	.	.	.	

Nif by Urban/Rural in Sub-Regions 4, 8, 9 only
Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	nif	1.5041	0.7817	-0.0281	3.0363	1.9240	0.0544
item*urb_rur	nif, 1	-3.1135	1.3458	-5.7512	-0.4758	-2.314	**0.0207**
item*urb_rur	nif, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	1.0000	.	.	.	.	.	

Otl in N and C only

Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	otl	-3.6376	0.7164	-5.0416	-2.2336	-5.078	0.0000
item*region1	otl, 1	2.8644	0.7709	1.3534	4.3754	3.7154	**0.0002**
item*region1	otl, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	1.0000	.	.	.	.	.	

Otl by Decile in N and C only

Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	otl	-0.4209	0.5122	-1.4248	0.5831	-.8216	0.4113
decile*item	otl	-0.2596	0.1016	-0.4587	-0.0605	-2.556	**0.0106**
scale	1.0091	.	.	.	.	.	

Otl by Urban/Rural in N and C only

Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	otl	-0.9808	0.3028	-1.5742	-0.3874	-3.240	0.0012
item*urb_rur	otl, 1	-1.6582	0.5531	-2.7423	-0.5741	-2.998	**0.0027**
item*urb_rur	otl, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	1.0000	.	.	.	.	.	

Otl by Urban/Rural and Main Region in N and C only Model 2 (no sig. figs. M1)

Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	otl	-2.8885	0.7306	-4.3205	-1.4565	-3.953	0.0001
item*region1	otl, 1	3.4161	0.8052	1.8379	4.9943	4.2423	**0.0000**
item*region1	otl, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*urb_rur	otl, 1	-2.3686	0.6278	-3.5990	-1.1382	-3.773	**0.0002**
item*urb_rur	otl, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	0.8568	.	.	.	.	.	

Otl by Urban/Rural and Decile in N and C only Model 1
Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	otl	0.5495	0.6682	-0.7602	1.8593	0.8224	0.4109
decile*item	otl	-0.2569	0.1048	-0.4624	-0.0514	-2.451	0.0143
item*urb_rur	otl, 1	-0.3354	1.0631	-2.4190	1.7482	-.3155	0.7524
item*urb_rur	otl, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
decile*item*u/r	otl, 1	-0.5608	0.2510	-1.0528	-0.0689	-2.234	**0.0255**
decile*item*u/r	otl, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	0.8219	.	.	.	.	.	

Otl by Decile in N and C Urban schools only
Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	otl	0.3896	0.6491	-0.8827	1.6619	0.6002	0.5484
decile*item	otl	-0.2476	0.1029	-0.4494	-0.0459	-2.406	**0.0161**
scale	0.9887	.	.	.	.	.	

Otl by Decile in N and C Rural schools only
Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	otl	-0.0964	0.7668	-1.5992	1.4065	-.1257	0.9000
decile*item	otl	-0.7723	0.2101	-1.1841	-0.3605	-3.676	**0.0002**
scale	0.6839	.	.	.	.	.	

Otl by Urban/Rural and Decile in N and C only Model 2
Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	otl	0.9999	0.6197	-0.2147	2.2145	1.6135	0.1066
decile*item	otl	-0.3398	0.0998	-0.5355	-0.1441	-3.404	**0.0007**
item*urb_rur	otl, 1	-2.1549	0.5556	-3.2438	-1.0660	-3.879	**0.0001**
item*urb_rur	otl, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	0.8739	.	.	.	.	.	

Otl in Sub-Regions 1, 3, 4 and 6 only

Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	otl	-2.3026	0.7416	-3.7561	-0.8490	-3.105	0.0019
item*region2	otl, 1	2.3026	1.1030	0.1407	4.4645	2.0875	**0.0368**
item*region2	otl, 3	3.0758	0.8908	1.3298	4.8218	3.4527	**0.0006**
item*region2	otl, 4	-0.1823	1.0448	-2.2301	1.8655	-.1745	0.8615
item*region2	otl, 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	1.0000	.	.	.	.	.	

Otl by Urban/Rural and Sub-Rregion, Sub-Regions 1, 3, 4 and 6 only, Model 2

Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	otl	-2.0016	0.7520	-3.4756	-0.5276	-2.662	0.0078
item*urb_rur	otl, 1	-1.9380	0.8257	-3.5563	-0.3196	-2.347	**0.0189**
item*urb_rur	otl, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*region2	otl, 1	3.9396	1.3201	1.3522	6.5270	2.9842	**0.0028**
item*region2	otl, 3	3.1265	0.8859	1.3902	4.8628	3.5292	**0.0004**
item*region2	otl, 4	0.9257	1.0113	-1.0565	2.9079	0.9153	0.3600
item*region2	otl, 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	1.0655	.	.	.	.	.	

CONTRAST Statement Results

Contrast	DF	ChiSquare	Pr>Chi	Type
3 – 6 for otl	1	15.8189	**0.0001**	LR

Otl by Urban/Rural in North Island only

Analysis Of GEE Parameter Estimates – Empirical Standard Error Estimates
Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	otl	-0.5108	0.3266	-1.1509	0.1293	-1.564	0.1178
item*urb_rur	otl, 1	-1.7084	0.5731	-2.8316	-0.5852	-2.981	**0.0029**
item*urb_rur	otl, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	1.0000	.	.	.	.	.	