My bike is munted
Laurie and Winifred Bauer

Question 17 asked for terms that mean 'damaged':

17 When you are riding your bike, you lose control, and crash into a bank. Your bike is damaged so badly that you can't ride it. How would you describe the state of your bike?

There was an enormous variety of responses here, 168 in all. Some were so frequent and so much part of everyone's vocabulary in this context that they were not coded, like *damaged, wrecked, smashed.* 148 items were coded. Many of these occurred only once or twice, and in the analysis, these were ignored. Forms with the same root were grouped together: *crusted, crustated, crustified* and *crusty*; *munted* and *muntified*; *cruddy, crudded* and *cruddified*, etc. In many cases, the variant forms came from the same schools, so that there was only one case where *muntified* was recorded and *munted* was not, for instance. In most cases, the more morphologically complex forms in these groups were single occurrences, although this was not the case with *muntified.*

Even after these simplifications, there were almost 50 forms remaining to process, and all forms with only three occurrences were also ignored after a check had been made to see whether any of them had all their occurrences close together. This was never the case.

The remaining forms varied widely in frequency. They were as follows (with frequencies in brackets): *munted* (124); *stuffed* (82); *wasted* (74); *buggered* (49); *fucked* (47); *screwed* (35); *demented* (23); *crappy* (21); *hammered* (20); *totalled* (20); *trashed* (19); *crusted* (17); *nailed* (17); *pakaru* (16); *munched* (14); *caned* (12); *rubbish/trash* (11); *rooted* (10); *budget* (9); *dead* (7); *shagged* (6); *demolished* (6); *mutilated* (6); *killed* (5); *cruddy* (4).

They give a good idea of the range of forms reported.

None of the highest frequency terms showed any evidence of regional variation: they were found throughout the country, although there were some minor skewings of the distribution. *Wasted* was less common in Southland-Otago. S*crewed* has a slightly higher frequency in the South Island than the North.

During school visits, two of the schools which had not reported *munted* were visited, and it was clear that this term is well-known in both those schools. This suggests that the gaps in this are accidental. (It was clear that this term was unfamiliar to many, perhaps even most, teachers. It has been in use in Wellington for at least 10 years. Its origin is dubious, but it is quite clearly a normal term for young New Zealanders.)

The main interest in this data lies in some of the middle-frequency terms. While many of them were dotted fairly evenly round the country, there were some which showed significant regional tendencies. A map of these was produced to highlight the patterns.

Crusted is largely a North Island form, with only 3 of the 17 occurrences in the South Island (17%, where 40% would be unremarkable). It is largely found in the Northern area of the North Island, which reported 10 of the 17 occurrences.

Demented is not reported at all in Northland, and only twice in Auckland. There are 7 of the 23 reports in the Northern area, 3 of them in Taranaki, which frequently a mixed Northern / Central region. There is only one report south of the Central area, so that this might be a Central area form.

Nailed is found in both the Central and Southern areas of the country, but there are just two reports from the Northern area. Thus only 11% of the occurrences occur in the 38% of the schools in the Northern Region.
Pakaru is also a Northern form. There is only one occurrence in the South Island, and that comes from an area where we know there has been a large migration from other parts of the country. There are only 5 occurrences south of the Northern area. It is not restricted to low decile schools, although the highest decile school reporting it is decile 7, and we do not know whether the term is commonly used only by children from lower socio-economic backgrounds in that school. Ten of the 16 occurrences were from decile 1, 2 and 3 schools (63%), when those schools make up 26% of our sample. Even if we ignore the South Island, 35% of the North Island schools in our sample are in the three lowest deciles, and they reported 66% of the North Island occurrences of *pakaru*. There is an interesting pattern of distribution in Northland, where *pakaru* is reported from western areas of the far north, but not from eastern areas. (During school visits, one further school in the Southern Region reported this form: a decile 3 school which has shown evidence of other Maori features. It was also found in Eastern Northland during school visits.)
Rooted is largely a Central and Southern Region form. Only 2 of the 10 reports are in the Northern Region. The two schools in the geographic area of Southland and Otago which reported *rooted* are ones which frequently show Central area forms, so this might be a Central area form.
Caned is essentially a South Island form (in this context: we know it has other uses in the North Island). There are only two occurrences in the North Island, in Wellington and Hawkes Bay. It is dotted from Nelson to Bluff, and does not support any separation of the Southland-Otago region. (During school visits, four further schools in the South Island reported *caned* in the appropriate sense, but in four other South Island schools, the children did not use it in this sense.)
Shagged has a very curious distribution. With one exception in the Bay of Plenty, it occurs in an area from north of Timaru to Dunedin, extending inland as far as Central Otago. It thus straddles the Central-Southern boundary of Main Regions. It again does not support any separation of the Southland-Otago region from the rest of the South Island.
The remainder of the mid and low frequency terms did not show any evidence of regional variation.

Statistical Analysis

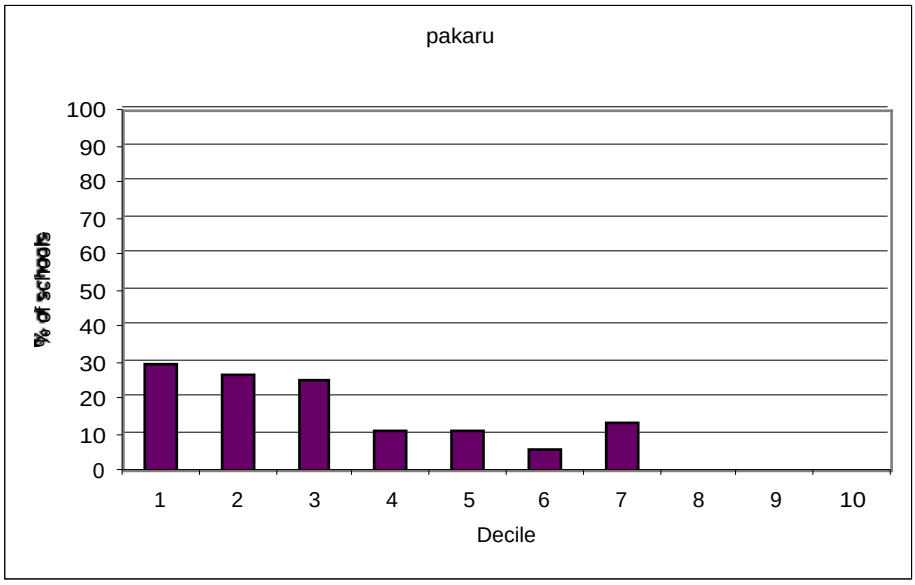
The terms *caned, crusted, demented, nailed, pakaru, rooted* and *shagged* were included in the statistical analysis.
Caned was shown to be significantly less common in the Northern Region than in the Southern Region with p-value 0.0079, and just significantly less likely in the Central Region than the Southern Region (p-value 0.0492). This is one of the few forms which is special to the Southern Region only. (There is also nearly significantly less use of *caned* in the Northern Region than the Central Region: p-value 0.0593), so that this form increases in frequency down the country from North to South. *Caned* is also shown to be significantly less likely in the North Island than the South (p-value 0.0043). For *caned*, none of the three figures for Main Region variation when Island is taken into account, nor the figure for Island when Main Region is taken into account were significant, but the figure for Island is lower, suggesting that this has a stronger effect than Main Region

distribution. *Caned* is thus significantly associated with the Southern Region, and also with the South Island, with the Island effect slightly stronger.
Crusted is significantly more likely in the Northern Region than the Central Region (p-value 0.0225). (The statistical analysis showed that the Island factor for *crusted* is not significant (p-value 0.0789).)
Demented did not correlate significantly with any of the factors we considered.
Nailed was shown to be significantly more likely in high decile schools (p-value 0.0436). *Nailed* is also significantly less likely in the Northern Region than the Central Region (p-value 0.0104). For *nailed* the contrast between the Northern and Central Regions is still significant (p-value 0.0252) when Decile is taken into account, but the p-value for Decile when Main Region is taken into account is not significant. Thus Main Region is the more important factor here, and the correlation with high decile is largely a result of the prevalence of this form in the Central Region.
Pakaru was shown to be a highly significantly low-decile form: (p-value 0.0002). It is important to consider whether this is a consequence of its prevalence in the Northern Region, rather than the Central Region (p-value 0.0096). It is also more frequent in the North Island than the South (p-value 0.0233). For *pakaru*, the effect of Decile is significant when Main Region is taken into account (p-value 0.0014), while none of the Main Region contrasts for *pakaru* when Decile is taken into account are significant, so Decile is considerably more important than Main Region for *pakaru*. Thus to a large extent, the Decile distribution explains the Main Region distribution. Next, the Main Region and Island interaction was considered. The figures for Main Region variation when Island is taken into account were interesting: the contrast between the Northern and Southern Regions indicated that there was highly significantly **less** use of *pakaru* in the Northern Region than the Southern Region, and highly significantly less in the Central than in the Southern Region, while the Northern – Central contrast (significant when Main Region is considered alone) was not significant. Thus Island has a major impact on the figures for Main Region distribution. The p-value for Island when Main Region was taken into account was null, with the program indicating that *pakaru* was strongly associated with the North Island. Thus Island is much more important than Main Region in accounting for the distribution of *pakaru*. Finally, the interaction between Decile and Island was investigated. The initial investigation showed that the Islands differed significantly (p-value 0.0303) in their decile effect for *pakaru* in the following way:

	North Island	South Island
pakaru	low decile (0.0032)	low decile (0.0068)

Thus *pakaru* is more strongly associated with low decile in the North Island than in the South Island. When the differences between the Islands are ignored, the p-value for Decile when Island is taken into account is significant (0.0016), while the p-value for Island when Decile is taken into account is not. Thus Decile has a stronger effect than Island on the distribution of *pakaru*. The North Island correlation is to a substantial degree a result of the distribution of low decile schools. Thus the factors affecting *pakaru* are ranked Decile, Island, Main Region.

The graph showing the decile distribution of *pakaru* follows.



Rooted did not correlate significantly with any of the factors we considered. *Shagged* was shown to be significantly more likely in high decile schools (p-value 0.0051). It is just significantly less likely in the North Island than the South (p-value 0.0494). For *shagged*, the Decile effect is significant when Island is taken into account, (p-value 0.0130), but the Island effect is not significant when Decile is taken into account, (0.0828), so Decile is more important here.

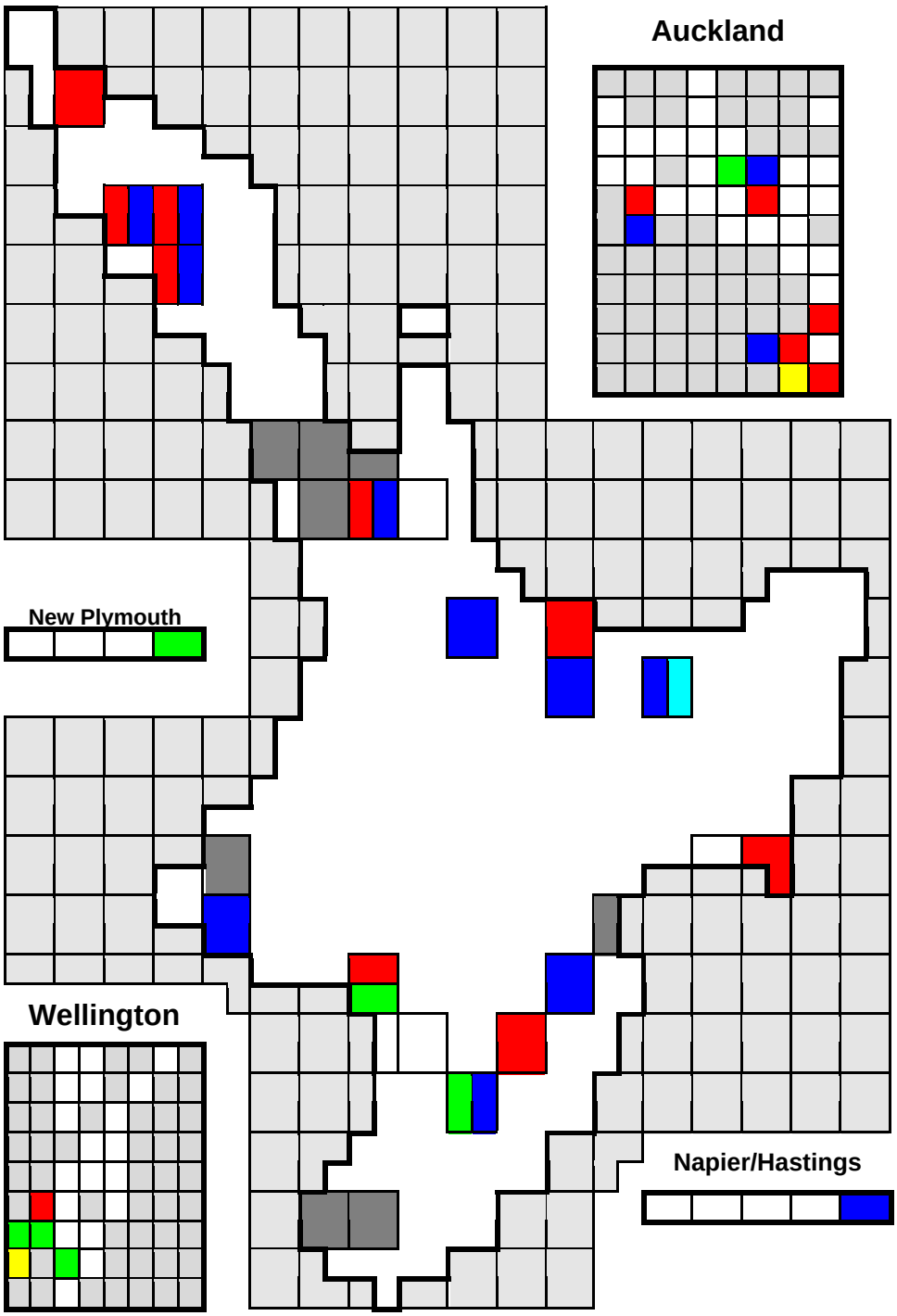
Comments on school visits

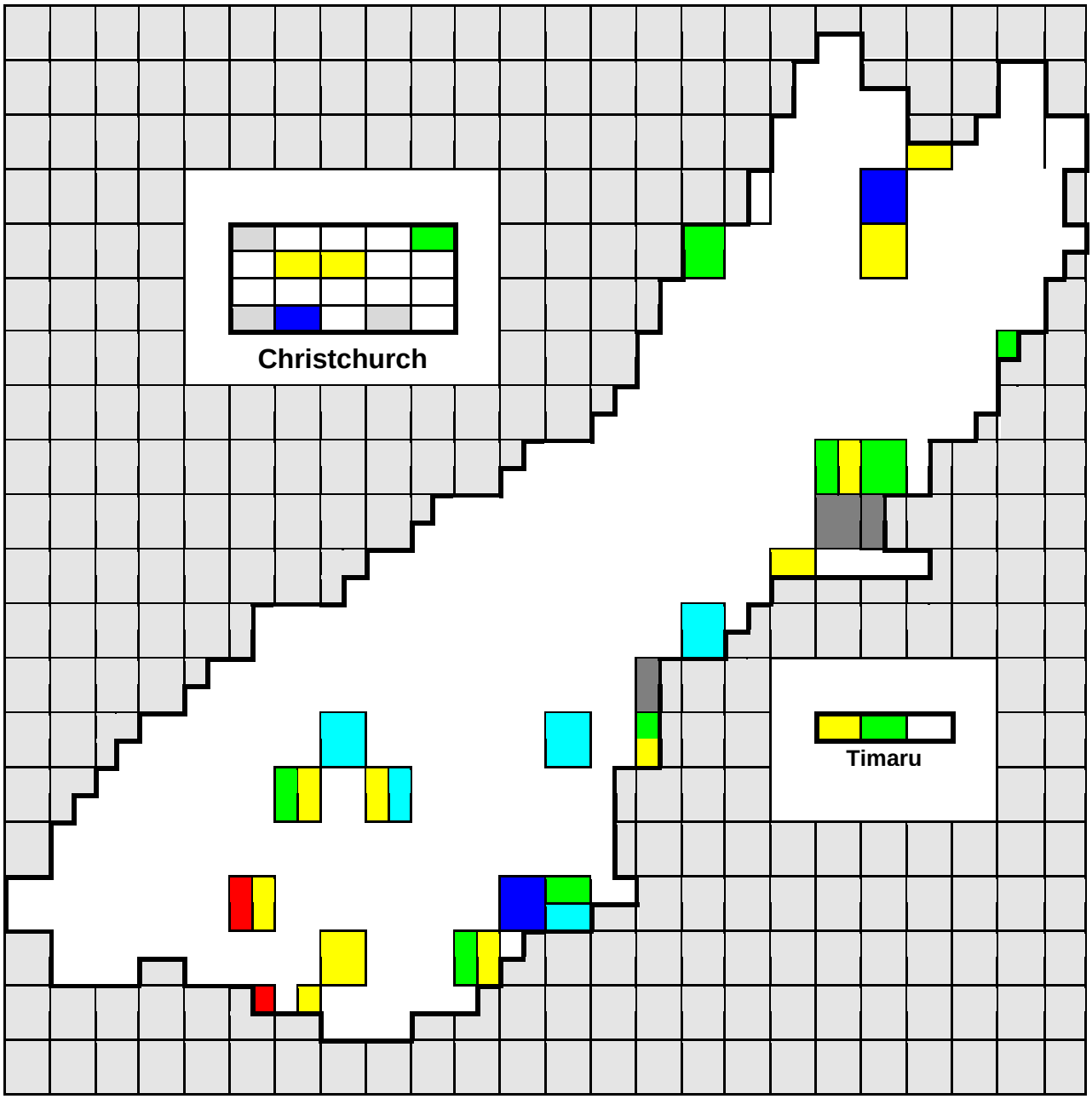
During school visits, an attempt was made to investigate the meaning of 'caned', since there was evidence that its sense varied from one part of the country to another. This showed that the sense of 'broken' (which it has in this question) is almost exclusively confined to the South Island. Throughout the country, it means 'thoroughly trounced in sport'. In some places it can mean 'beaten up or injured' (of people), but this appears to be fairly sporadic. In some areas, particularly in the central North Island, it means 'drove a car fast'. This simply reinforces the necessity of investigating vocabulary in specific contexts, as we did in the questionnaire: different parts of the country use the same form in different senses.

Summary

The complexity of the results obtained for this set of data show that both regional effects and decile effects are important, but to differing degrees and in different ways for different items. A map of some of the more strongly regionalised forms follows.

Map: ***pakaru, nailed, crusted, caned, shagged***





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.

	nailed		See urban map insert
	pakaru		caned
	crusted		shagged

Q17 Statistics: alternatives to *munted*
Alternatives to *munted* 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	caned	-3.4399	0.6630	-4.7394	-2.1403	-5.188	0.0000
item	crusted	-1.5664	0.5672	-2.6781	-0.4546	-2.761	0.0058
item	d'mented	-1.9124	0.5119	-2.9156	-0.9091	-3.736	0.0002
item	nailed	-3.0782	0.5966	-4.2475	-1.9090	-5.160	0.0000
item	pakaru	-0.2308	0.4929	-1.1968	0.7353	-.4682	0.6396
item	rooted	-2.7358	0.8068	-4.3170	-1.1546	-3.391	0.0007
item	shagged	-6.5767	1.4562	-9.4307	-3.7227	-4.516	0.0000
decile*item	caned	0.1594	0.0887	-0.0145	0.3333	1.7965	0.0724
decile*item	crusted	-0.0888	0.0969	-0.2787	0.1012	-.9159	0.3597
decile*item	d'mented	0.0350	0.0773	-0.1166	0.1866	0.4528	0.6507
decile*item	nailed	0.1638	0.0812	0.0047	0.3229	2.0176	**0.0436**
decile*item	pakaru	-0.4097	0.1103	-0.6260	-0.1934	-3.713	**0.0002**
decile*item	rooted	0.0170	0.1256	-0.2292	0.2632	0.1354	0.8923
decile*item	shagged	0.4734	0.1692	0.1418	0.8050	2.7978	**0.0051**
scale	0.9657	.	.	.	.	.	

CONTRAST Statement Results for Main Regions:

Contrast	DF	ChiSquare	Pr>Chi	Type
1 -2 for caned	1	3.5579	0.0593	LR
1 -2 for crusted	1	5.2057	**0.0225**	LR
1 -2 for demented	1	1.1958	0.2742	LR
1 -2 for nailed	1	6.5685	**0.0104**	LR
1 -2 for pakaru	1	6.7109	**0.0096**	LR
1 -2 for rooted	1	1.0955	0.2953	LR
1 -2 for shagged	1	0.5320	0.4658	LR

Alternatives to *munted* by Main Region

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	caned	-0.9163	0.5916	-2.0758	0.2432	-1.549	0.1214
item	crusted	-2.5649	1.0377	-4.5989	-0.5310	-2.472	0.0134
item	d'mented	-2.5649	1.0377	-4.5989	-0.5310	-2.472	0.0134
item	nailed	-1.7918	0.7638	-3.2887	-0.2948	-2.346	0.0190
item	pakaru	-2.5649	1.0377	-4.5989	-0.5310	-2.472	0.0134
item	rooted	-1.7918	0.7638	-3.2887	-0.2948	-2.346	0.0190
item	shagged	-1.7918	0.7638	-3.2887	-0.2948	-2.346	0.0190
item*region1	caned, 1	-3.1091	1.1696	-5.4013	-0.8168	-2.658	**0.0079**
item*region1	caned, 2	-1.4005	0.7120	-2.7960	-0.0050	-1.967	**0.0492**
item*region1	caned, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*region1	crusted, 1	1.1342	1.0907	-1.0035	3.2719	1.0399	0.2984
item*region1	crusted, 2	-0.1161	1.1361	-2.3427	2.1106	-.1022	0.9186
item*region1	crusted, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*region1	dmnted, 1	0.5988	1.1135	-1.5835	2.7812	0.5378	0.5907
item*region1	dmnted, 2	1.1299	1.0768	-0.9806	3.2403	1.0493	0.2940
item*region1	dmnted, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*region1	nailed, 1	-1.5224	1.0495	-3.5795	0.5346	-1.451	0.1469
item*region1	nailed, 2	0.1823	0.8220	-1.4287	1.7934	0.2218	0.8245
item*region1	nailed, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*region1	pakaru, 1	1.1342	1.0907	-1.0035	3.2719	1.0399	0.2984
item*region1	pakaru, 2	-0.3528	1.1578	-2.6220	1.9164	-.3047	0.7606
item*region1	pakaru, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*region1	rooted, 1	-1.5224	1.0495	-3.5795	0.5346	-1.451	0.1469
item*region1	rooted, 2	-0.6931	0.8740	-2.4062	1.0199	-.7931	0.4277
item*region1	rooted, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*region1	shagged, 1	-2.2336	1.2654	-4.7137	0.2465	-1.765	0.0775
item*region1	shagged, 2	-1.4271	0.9644	-3.3172	0.4630	-1.480	0.1389
item*region1	shagged, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	1.0000	.	.	.	.	.	

Alternatives to *munted* by Sub-Region

Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	caned	1	-0.9163	0.5916	2.3988	0.1214
item	crusted	1	-2.5649	1.0377	6.1090	0.0134
item	demented	1	-2.5649	1.0377	6.1090	0.0134
item	nailed	1	-1.7918	0.7638	5.5035	0.0190
item	pakaru	1	-2.5649	1.0377	6.1090	0.0134
item	rooted	1	-1.7918	0.7638	5.5035	0.0190
item	shagged	1	-1.7918	0.7638	5.5035	0.0190
item*region2	caned, 1	1	-26.4490	357461.063	0.0000	0.9999
item*region2	caned, 2	1	-26.4490	357461.063	0.0000	0.9999
item*region2	caned, 3	1	-1.9741	1.1856	2.7726	0.0959
item*region2	caned, 4	1	-26.4490	171718.740	0.0000	0.9999
item*region2	caned, 5	1	-26.4490	252763.142	0.0000	0.9999
item*region2	caned, 6	1	-2.1282	1.1822	3.2408	0.0718
item*region2	caned, 7	1	-0.3365	0.9964	0.1140	0.7356
item*region2	caned, 8	1	-26.4490	357461.063	0.0000	0.9999
item*region2	caned, 9	1	-0.6931	0.8660	0.6406	0.4235
item*region2	caned, 10	1	-1.2809	1.2088	1.1230	0.2893
item*region2	caned, 11	0	0.0000	0.0000	.	.
item*region2	crusted, 1	1	2.5649	1.3205	3.7732	0.0521
item*region2	crusted, 2	1	-24.8004	357461.063	0.0000	0.9999
item*region2	crusted, 3	1	0.8910	1.2136	0.5390	0.4628
item*region2	crusted, 4	1	1.1299	1.1509	0.9638	0.3262
item*region2	crusted, 5	1	0.9555	1.2950	0.5445	0.4606
item*region2	crusted, 6	1	-0.4796	1.4576	0.1083	0.7421
item*region2	crusted, 7	1	0.4855	1.4839	0.1071	0.7435
item*region2	crusted, 8	1	-24.8004	357461.063	0.0000	0.9999
item*region2	crusted, 9	1	-0.2683	1.4614	0.0337	0.8544
item*region2	crusted, 10	1	-24.8004	276888.149	0.0000	0.9999
item*region2	crusted, 11	0	0.0000	0.0000	.	.
item*region2	demented, 1	1	-24.8004	357461.063	0.0000	0.9999
item*region2	d’mented, 2	1	-24.8004	357461.063	0.0000	0.9999
item*region2	d’mented, 3	1	0.4249	1.2790	0.1104	0.7397
item*region2	d’mented, 4	1	1.1299	1.1509	0.9638	0.3262
item*region2	d’mented, 5	1	0.1671	1.4724	0.0129	0.9097
item*region2	d’mented, 6	1	1.3412	1.1557	1.3466	0.2459
item*region2	d’mented, 7	1	1.3122	1.3114	1.0012	0.3170
item*region2	d’mented, 8	1	0.9555	1.5089	0.4010	0.5266
item*region2	d’mented, 9	1	1.6094	1.1635	1.9133	0.1666
item*region2	dmented, 10	1	0.3677	1.4792	0.0618	0.8037
item*region2	dmented, 11	0	0.0000	0.0000	.	.
item*region2	nailed,1	1	-25.5736	357461.063	0.0000	0.9999

item*region2	nailed, 2	1	-25.5736	357461.063	0.0000	0.9999
item*region2	nailed, 3	1	-1.0986	1.2802	0.7364	0.3908
item*region2	nailed, 4	1	-1.4271	1.2741	1.2546	0.2627
item*region2	nailed, 5	1	-25.5736	252763.142	0.0000	0.9999
item*region2	nailed, 6	1	0.5680	0.9177	0.3831	0.5360
item*region2	nailed, 7	1	-0.2877	1.3070	0.0484	0.8258
item*region2	nailed, 8	1	0.1823	1.3354	0.0186	0.8914
item*region2	nailed, 9	1	0.1823	0.9916	0.0338	0.8541
item*region2	nailed, 10	1	0.9445	1.0293	0.8419	0.3589
item*region2	nailed, 11	0	0.0000	0.0000	.	.
item*region2	pakaru, 1	1	3.2581	1.3516	5.8104	0.0159
item*region2	pakaru, 2	1	-24.8004	357461.063	0.0000	0.9999
item*region2	pakaru, 3	1	1.5353	1.1612	1.7482	0.1861
item*region2	pakaru, 4	1	0.0800	1.2722	0.0040	0.9498
item*region2	pakaru, 5	1	0.1671	1.4724	0.0129	0.9097
item*region2	pakaru, 6	1	0.2624	1.2755	0.0423	0.8370
item*region2	pakaru, 7	1	-24.8004	291865.736	0.0000	0.9999
item*region2	pakaru, 8	1	-24.8004	357461.063	0.0000	0.9999
item*region2	pakaru, 9	1	-24.8004	206380.241	0.0000	?
item*region2	pakaru, 10	1	-24.8004	276888.149	0.0000	0.9999
item*region2	pakaru, 11	0	0.0000	0.0000	.	.
item*region2	rooted, 1	1	-25.5736	357461.063	0.0000	0.9999
item*region2	rooted, 2	1	-25.5736	357461.063	0.0000	0.9999
item*region2	rooted, 3	1	-25.5736	200875.776	0.0000	0.9999
item*region2	rooted, 4	1	-0.6931	1.0607	0.4271	0.5134
item*region2	rooted, 5	1	-0.6061	1.2939	0.2194	0.6395
item*region2	rooted, 6	1	-1.2528	1.2771	0.9623	0.3266
item*region2	rooted, 7	1	-25.5736	291865.736	0.0000	0.9999
item*region2	rooted, 8	1	0.1823	1.3354	0.0186	0.8914
item*region2	rooted, 9	1	-0.2877	1.0704	0.0722	0.7881
item*region2	rooted, 10	1	-0.4055	1.3017	0.0970	0.7554
item*region2	rooted ,11	0	0.0000	0.0000	.	.
item*region2	shagged, 1	1	-25.5736	357461.063	0.0000	0.9999
item*region2	shagged, 2	1	-25.5736	357461.063	0.0000	0.9999
item*region2	shagged, 3	1	-25.5736	200875.776	0.0000	0.9999
item*region2	shagged, 4	1	-1.4271	1.2741	1.2546	0.2627
item*region2	shagged, 5	1	-25.5736	252763.142	0.0000	0.9999
item*region2	shagged, 6	1	-25.5736	186677.952	0.0000	0.9999
item*region2	shagged, 7	1	-25.5736	291865.736	0.0000	0.9999
item*region2	shagged, 8	1	-25.5736	357461.063	0.0000	0.9999
item*region2	shagged, 9	1	-1.0415	1.2815	0.6605	0.4164
item*region2	shagged, 10	1	0.4055	1.0992	0.1361	0.7122
item*region2	shagged, 11	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Alternatives to *munted* by Island

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	caned	-1.5476	0.3482	-2.2301	-0.8650	-4.444	0.0000
item	crusted	-2.8904	0.5932	-4.0530	-1.7278	-4.873	0.0000
item	demented	-1.5476	0.3482	-2.2301	-0.8650	-4.444	0.0000
item	nailed	-1.5476	0.3482	-2.2301	-0.8650	-4.444	0.0000
item	pakaru	-4.0254	1.0089	-6.0027	-2.0480	-3.990	0.0001
item	rooted	-2.1401	0.4316	-2.9860	-1.2942	-4.959	0.0000
item	shagged	-2.3418	0.4682	-3.2595	-1.4241	-5.001	0.0000
item*island	caned, 1	-2.2701	0.7952	-3.8286	-0.7117	-2.855	**0.0043**
item*island	caned, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	crusted, 1	1.1600	0.6603	-0.1341	2.4541	1.7569	0.0789
item*island	crusted, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	demented, 1	-0.2695	0.4590	-1.1692	0.6301	-.5872	0.5571
item*island	demented, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	nailed, 1	-0.9609	0.5251	-1.9901	0.0684	-1.830	0.0673
item*island	nailed, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	pakaru, 1	2.3767	1.0475	0.3235	4.4298	2.2688	**0.0233**
item*island	pakaru, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	rooted, 1	-0.9623	0.6690	-2.2734	0.3489	-1.438	0.1503
item*island	rooted, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	shagged, 1	-2.1800	1.1091	-4.3538	-0.0062	-1.966	**0.0494**
item*island	shagged, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	1.0000	.	.	.	.	.	

Alternatives to *munted* by Catholic

Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	caned	1	-1.9459	0.7559	6.6265	0.0100
item	crusted	1	-25.3653	0.2600	9518.3992	0.0001
item	demented	1	-1.0986	0.5774	3.6208	0.0571
item	nailed	1	-1.9459	0.7559	6.6265	0.0100
item	pakaru	1	-25.3654	0.2668	9037.0844	0.0001
item	rooted	1	-2.7081	1.0328	6.8752	0.0087
item	shagged	1	-25.3653	0.4560	3094.2101	0.0001
item*catholic	caned, 1	1	-0.5473	0.8244	0.4407	0.5068
item*catholic	caned, 2	0	0.0000	0.0000	.	.
item*catholic	crusted, 1	0	23.4624	0.0000	.	.
item*catholic	crusted, 2	0	0.0000	0.0000	.	.
item*catholic	demented, 1	1	-0.6754	0.6284	1.1553	0.2824
item*catholic	demented, 2	0	0.0000	0.0000	.	.
item*catholic	nailed, 1	1	-0.1772	0.8071	0.0482	0.8262
item*catholic	nailed ,2	0	0.0000	0.0000	.	.
item*catholic	pakaru, 1	0	23.3930	0.0000	.	.
item*catholic	pakaru, 2	0	0.0000	0.0000	.	.
item*catholic	rooted, 1	1	0.1013	1.0890	0.0086	0.9259
item*catholic	rooted, 2	0	0.0000	0.0000	.	.
item*catholic	shagged, 1	0	22.1385	0.0000	.	.
item*catholic	shagged, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

Alternatives to *munted* by Urban/Rural

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	caned	-2.3795	0.4675	-3.2958	-1.4633	-5.090	0.0000
item	crusted	-2.6210	0.5179	-3.6360	-1.6060	-5.061	0.0000
item	demented	-1.3652	0.3234	-1.9992	-0.7313	-4.221	0.0000
item	nailed	-1.8524	0.3803	-2.5977	-1.1071	-4.871	0.0000
item	pakaru	-2.0053	0.4026	-2.7944	-1.2162	-4.981	0.0000
item	rooted	-3.3499	0.7194	-4.7599	-1.9399	-4.656	0.0000
item	shagged	-4.0604	1.0086	-6.0372	-2.0837	-4.026	0.0001
item*urb_rur	caned, 1	-0.2107	0.6306	-1.4467	1.0253	-.3341	0.7383
item*urb_rur	caned, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*urb_rur	crusted, 1	0.8955	0.5990	-0.2785	2.0696	1.4950	0.1349
item*urb_rur	crusted, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*urb_rur	dmentd, 1	-0.7813	0.4782	-1.7187	0.1560	-1.634	0.1023
item*urb_rur	dmentd, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*urb_rur	nailed, 1	-0.5712	0.5478	-1.6449	0.5026	-1.043	0.2971
item*urb_rur	nailed, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*urb_rur	pakaru, 1	-0.1412	0.5350	-1.1898	0.9073	-.2640	0.7918
item*urb_rur	pakaru, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*urb_rur	rooted, 1	1.0726	0.8095	-0.5140	2.6593	1.3250	0.1852
item*urb_rur	rooted, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*urb_rur	shagged, 1	1.2754	1.1089	-0.8979	3.4488	1.1502	0.2501
item*urb_rur	shagged, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	1.0000	.	.	.	.	.	

Alternatives to *munted* by Main Region and Decile, Model 1

Analysis Of GEE Parameter Estimates – Empirical 95% Confidence Limits

parameter		Est.	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	caned	-1.7104	1.0234	-3.7162	0.2954	-1.671	0.0947
item	crusted	-10.5509	4.0662	-18.5205	-2.5813	-2.595	0.0095
item	demented	-10.5509	4.0662	-18.5205	-2.5813	-2.595	0.0095
item	nailed	-1.9705	0.9803	-3.8919	-0.0490	-2.010	0.0444
item	pakaru	0.5098	1.8024	-3.0229	4.0425	0.2828	0.7773
item	rooted	0.0310	1.3469	-2.6089	2.6709	0.0230	0.9816
item	shagged	-11.3310	5.9269	-22.9476	0.2856	-1.912	0.0559
dec*item	caned	0.1336	0.1566	-0.1733	0.4406	0.8532	0.3935
dec*item	crusted	1.0180	0.5156	0.0074	2.0285	1.9744	**0.0483**
dec*item	demented	1.0180	0.5156	0.0074	2.0285	1.9744	**0.0483**
dec*item	nailed	0.0326	0.1124	-0.1876	0.2528	0.2902	0.7717
dec*item	pakaru	-0.8757	0.3812	-1.6228	-0.1286	-2.297	**0.0216**
dec*item	rooted	-0.3798	0.2308	-0.8323	0.0726	-1.645	0.0999
dec*item	shagged	1.2259	0.6390	-0.0266	2.4783	1.9184	0.0551
item*reg1	caned, 1	-2.3186	1.4156	-5.0931	0.4559	-1.638	0.1014
item*reg1	caned, 2	-1.5938	1.5495	-4.6306	1.4431	-1.029	0.3037
item*reg1	caned, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*reg1	crusted, 1	9.5195	4.1219	1.4406	17.5983	2.3095	**0.0209**
item*reg1	crusted, 2	8.2941	4.2298	0.0037	16.5844	1.9608	**0.0499**
item*reg1	crusted, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*reg1	dmentd, 1	7.0572	4.1293	-1.0361	15.1505	1.7090	0.0874
item*reg1	dmentd, 2	10.1005	4.1286	2.0085	18.1924	2.4465	**0.0144**
item*reg1	dmentd, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*reg1	nailed, 1	-4.0188	3.1177	-10.1294	2.0917	-1.289	0.1974
item*reg1	nailed, 2	-0.1170	1.2400	-2.5473	2.3132	-.0944	0.9248
item*reg1	nailed, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*reg1	pakaru, 1	-0.8521	1.9057	-4.5872	2.8829	-.4471	0.6548
item*reg1	pakaru, 2	-0.5194	2.0263	-4.4908	3.4520	-.2563	0.7977
item*reg1	pakaru, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*reg1	rooted, 1	-7.0866	1.6662	-10.3523	-3.8209	-4.253	**0.0000**
item*reg1	rooted, 2	-2.0864	1.8136	-5.6409	1.4681	-1.150	0.2500
item*reg1	rooted, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*reg1	shagged, 1	3.6103	6.0640	-8.2750	15.4956	0.5954	0.5516
item*reg1	shagged, 2	6.0754	6.1989	-6.0742	18.2250	0.9801	0.3270
item*reg1	shagged, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dc*i*reg1	caned, 1	-0.1304	0.1649	-0.4536	0.1928	-.7910	0.4289
dc*i*reg1	caned, 2	0.0112	0.2183	-0.4167	0.4391	0.0513	0.9591
dc*i*reg1	caned, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dc*i*reg1	crusted, 1	-1.1015	0.5317	-2.1436	-0.0594	-2.072	**0.0383**
dc*i*reg1	crusted, 2	-1.0856	0.5454	-2.1546	-0.0166	-1.990	**0.0465**

dc*i*reg1	crusted, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dc*i*reg1	dmentd, 1	-0.7468	0.5261	-1.7780	0.2844	-1.419	0.1558
dc*i*reg1	dmentd, 2	-1.1792	0.5282	-2.2144	-0.1440	-2.233	**0.0256**
dc*i*reg1	dmentd, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dc*i*reg1	nailed, 1	0.3945	0.3944	-0.3786	1.1676	1.0001	0.3173
dc*i*reg1	nailed, 2	0.0401	0.1528	-0.2595	0.3396	0.2621	0.7933
dc*i*reg1	nailed, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dc*i*reg1	pakaru, 1	0.6284	0.4030	-0.1614	1.4182	1.5594	0.1189
dc*i*reg1	pakaru 2	0.2493	0.4418	-0.6166	1.1152	0.5643	0.5725
dc*i*reg1	pakaru, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dc*i*reg1	rooted 1	0.9456	0.2587	0.4387	1.4526	3.6559	**0.0003**
dc*i*reg1	rooted, 2	0.3113	0.2987	-0.2741	0.8968	1.0423	0.2973
dc*i*reg1	rooted 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dc*i*reg1	shagged, 1	-0.6698	0.6481	-1.9400	0.6004	-1.033	0.3014
dc*i*reg1	shagged, 2	-0.9443	0.6750	-2.2673	0.3786	-1.399	0.1618
dc*i*reg1	shagged, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	0.9242	.	.	.	.	.	

Alternatives to *munted* by Decile, Northern Region only

Analysis Of GEE Parameter Estimates – Empirical 95% Confidence Limits

parameter		Est.	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	caned	-3.9560	0.8981	-5.7163	-2.1957	-4.405	0.0000
item	crusted	-1.0046	0.6708	-2.3194	0.3102	-1.498	0.1343
item	demented	-3.4931	0.7237	-4.9115	-2.0747	-4.827	0.0000
item	nailed	-6.0882	3.0874	-12.1395	-0.0370	-1.972	0.0486
item	pakaru	-0.3063	0.6213	-1.5240	0.9115	-.4929	0.6221
item	rooted	-7.2559	1.1079	-9.4273	-5.0846	-6.550	0.0000
item	shagged	-8.0178	1.5684	-11.0918	-4.9437	-5.112	0.0000
decile*item	caned	-0.0082	0.0595	-0.1248	0.1084	-.1377	0.8905
decile*item	crusted	-0.0881	0.1299	-0.3427	0.1666	-.6778	0.4979
decile*item	demented	0.2717	0.1037	0.0684	0.4749	2.6191	**0.0088**
decile*item	nailed	0.4418	0.3911	-0.3248	1.2084	1.1296	0.2586
decile*item	pakaru	-0.2546	0.1334	-0.5162	0.0069	-1.908	0.0563
decile*item	rooted	0.5929	0.1210	0.3557	0.8301	4.8988	**0.0000**
decile*item	shagged	0.5961	0.1239	0.3532	0.8390	4.8102	**0.0000**
scale	0.9033	.	.	.	.	.	

Alternatives to *munted* by Decile, Central Region only

Analysis Of GEE Parameter Estimates – Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	caned	-3.3149	1.1695	-5.6071	-1.0227	-2.834	0.0046
item	crusted	-2.2684	1.1718	-4.5650	0.0282	-1.936	0.0529
item	dmentd	-0.4570	0.7161	-1.8605	0.9465	-.6382	0.5234
item	nailed	-2.0950	0.7602	-3.5850	-0.6050	-2.756	0.0059
item	pakaru	-0.0425	0.9198	-1.8454	1.7603	-.0462	0.9631
item	rooted	-2.0661	1.2178	-4.4528	0.3207	-1.697	0.0898
item	shagged	-5.2830	1.8353	-8.8801	-1.6858	-2.878	0.0040
decile*item	caned	0.1461	0.1526	-0.1531	0.4452	0.9568	0.3387
decile*item	crusted	-0.0662	0.1785	-0.4161	0.2837	-.3709	0.7107
decile*item	dmentd	-0.1604	0.1146	-0.3850	0.0643	-1.399	0.1617
decile*item	nailed	0.0735	0.1036	-0.1295	0.2766	0.7096	0.4780
decile*item	pakaru	-0.6180	0.2173	-1.0439	-0.1921	-2.844	**0.0045**
decile*item	rooted	-0.0672	0.1896	-0.4389	0.3045	-.3542	0.7232
decile*item	shagged	0.2847	0.2194	-0.1454	0.7148	1.2974	0.1945
scale	0.9620	.	.	.	.	.	

Alternatives to *munted* by Decile, Southern Region only

Analysis Of GEE Parameter Estimates – Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	caned	-1.7103	1.0204	-3.7102	0.2897	-1.676	0.0937
item	crusted	-10.1209	3.7844	-17.5382	-2.7035	-2.674	0.0075
item	dmentd	-10.1209	3.7844	-17.5382	-2.7035	-2.674	0.0075
item	nailed	-1.9762	0.9801	-3.8972	-0.0552	-2.016	0.0438
item	pakaru	0.4096	1.8034	-3.1251	3.9443	0.2271	0.8203
item	rooted	-0.0039	1.3497	-2.6493	2.6416	-.0029	0.9977
item	shagged	-10.9212	5.5106	-21.7218	-0.1206	-1.982	0.0475
decile*item	caned	0.1326	0.1559	-0.1730	0.4382	0.8503	0.3952
decile*item	crusted	0.9659	0.4898	0.0059	1.9260	1.9719	**0.0486**
decile*item	dmentd	0.9659	0.4898	0.0059	1.9260	1.9719	**0.0486**
decile*item	nailed	0.0321	0.1115	-0.1865	0.2507	0.2878	0.7735
decile*item	pakaru	-0.8419	0.3654	-1.5580	-0.1257	-2.304	**0.0212**
decile*item	rooted	-0.3732	0.2282	-0.8204	0.0741	-1.635	0.1020
decile*item	shagged	1.1761	0.5955	0.0090	2.3432	1.9750	0.0483
scale	0.7838	.	.	.	.	.	

Alternatives to *munted* by Main Region and Decile, Model 2

Analysis Of GEE Parameter Estimates – Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	caned	-1.6724	0.8121	-3.2642	-0.0806	-2.059	0.0395
item	crusted	-2.2925	1.0188	-4.2893	-0.2956	-2.250	0.0244
item	demented	-2.5952	1.0307	-4.6153	-0.5751	-2.518	0.0118
item	nailed	-2.4676	0.9813	-4.3909	-0.5443	-2.515	0.0119
item	pakaru	-0.8005	1.1499	-3.0542	1.4532	-.6962	0.4863
item	rooted	-1.6801	1.2370	-4.1046	0.7444	-1.358	0.1744
item	shagged	-5.1349	1.4981	-8.0711	-2.1987	-3.428	0.0006
dec*item	caned	0.1271	0.0999	-0.0687	0.3229	1.2722	0.2033
dec*item	crusted	-0.0453	0.1011	-0.2434	0.1528	-.4485	0.6538
dec*item	demented	0.0077	0.0883	-0.1654	0.1808	0.0874	0.9303
dec*item	nailed	0.1121	0.0908	-0.0659	0.2902	1.2344	0.2170
dec*item	pakaru	-0.3810	0.1195	-0.6152	-0.1468	-3.188	**0.0014**
dec*item	rooted	-0.0174	0.1414	-0.2947	0.2598	-.1234	0.9018
dec*item	shagged	0.4815	0.1954	0.0985	0.8645	2.4640	**0.0137**
item*reg1	caned, 1	-3.0563	1.1914	-5.3913	-0.7213	-2.565	**0.0103**
item*reg1	caned, 2	-1.4996	0.7323	-2.9350	-0.0643	-2.048	**0.0406**
item*reg1	caned, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*reg1	crusted, 1	1.0812	1.0658	-1.0077	3.1701	1.0144	0.3104
item*reg1	crusted, 2	-0.1021	1.1519	-2.3598	2.1556	-.0886	0.9294
item*reg1	crusted, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*reg1	dmentd, 1	0.5902	1.0894	-1.5449	2.7254	0.5418	0.5880
item*reg1	dmentd, 2	1.1122	1.0745	-0.9937	3.2182	1.0351	0.3006
item*reg1	dmentd, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*reg1	nailed, 1	-1.4539	1.0766	-3.5639	0.6562	-1.350	0.1769
item*reg1	nailed, 2	0.1124	0.8336	-1.5216	1.7463	0.1348	0.8928
item*reg1	nailed, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*reg1	pakaru, 1	0.9545	1.0706	-1.1439	3.0529	0.8915	0.3726
item*reg1	pakaru, 2	-0.1284	1.1324	-2.3478	2.0911	-.1134	0.9097
item*reg1	pakaru, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*reg1	rooted, 1	-1.5479	1.1158	-3.7348	0.6390	-1.387	0.1654
item*reg1	rooted, 2	-0.6914	0.8568	-2.3707	0.9879	-.8070	0.4197
item*reg1	rooted, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*reg1	shagged, 1	-2.0709	1.3119	-4.6421	0.5003	-1.579	0.1144
item*reg1	shagged, 2	-1.7568	1.0366	-3.7885	0.2750	-1.695	0.0901
item*reg1	shagged, 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	0.9668	.	.	.	.	.	

CONTRAST Statement Results

Contrast	DF	ChiSquare	Pr>Chi	Type
1 -2 for caned	1	2.6367	0.1044	LR
1 -2 for crusted	1	4.4067	**0.0358**	LR
1 -2 for demented	1	1.0529	0.3048	LR
1 -2 for nailed	1	5.0089	**0.0252**	LR
1 -2 for pakaru	1	2.9432	0.0862	LR
1 -2 for rooted	1	1.0943	0.2955	LR
1 -2 for shagged	1	0.0383	0.8448	LR

Alternatives to *munted* by Main Region and Island, Model 2

Analysis Of Initial Parameter Estimates

parameter		DF	Estimate	Std Err	ChiSquare	Pr>Chi
intercept	0	0.00	0.0000	.	.	
item	caned	1	-0.9163	0.5916	2.3988	0.1214
item	crusted	1	-2.5649	1.0377	6.1090	0.0134
item	demented	1	-2.5649	1.0377	6.1090	0.0134
item	nailed	1	-1.7918	0.7638	5.5035	0.0190
item	pakaru	1	-2.5649	1.0377	6.1090	0.0134
item	rooted	1	-1.7918	0.7638	5.5035	0.0190
item	shagged	1	-1.7918	0.7638	5.5035	0.0190
item*region1	caned, 1	1	-1.4019	1.6096	0.7585	0.3838
item*region1	caned, 2	1	-0.9029	0.7374	1.4993	0.2208
item*region1	caned, 3	0	0.0000	0.0000	.	.
item*region1	crusted, 1	1	0.4809	1.4417	0.1113	0.7387
item*region1	crusted, 2	1	-0.4555	1.2654	0.1296	0.7189
item*region1	crusted, 3	0	0.0000	0.0000	.	.
item*region1	demented, 1	1	0.8452	1.2576	0.4518	0.5015
item*region1	demented, 2	1	1.2358	1.1034	1.2545	0.2627
item*region1	demented, 3	0	0.0000	0.0000	.	.
item*region1	nailed, 1	1	-1.2066	1.2200	0.9781	0.3227
item*region1	nailed, 2	1	0.3159	0.8584	0.1354	0.7129
item*region1	nailed, 3	0	0.0000	0.0000	.	.
item*region1	pakaru, 1	1	-23.1834	1.0907	451.8196	**0.0001**
item*region1	pakaru, 2	1	-23.8004	1.1658	416.7643	**0.0001**
item*region1	pakaru, 3	0	0.0000	0.0000	.	.
item*region1	rooted, 1	1	-0.9963	1.3811	0.5204	0.4707
item*region1	rooted, 2	1	-0.4855	0.9268	0.2744	0.6004
item*region1	rooted, 3	0	0.0000	0.0000	.	.
item*region1	shagged, 1	1	21.5415	1.2654	289.8060	**0.0001**
item*region1	shagged, 2	1	-0.7985	0.9704	0.6771	0.4106
item*region1	shagged, 3	0	0.0000	0.0000	.	.
item*island	caned, 1	1	-1.7072	1.1059	2.3829	0.1227
item*island	caned, 2	0	0.0000	0.0000	.	.

item*island	crusted, 1	1	0.6533	0.9429	0.4801	0.4884
item*island	crusted, 2	0	0.0000	0.0000	.	.
item*island	dmentd, 1	1	-0.2464	0.5845	0.1777	0.6734
item*island	dmentd, 2	0	0.0000	0.0000	.	.
item*island	nailed, 1	1	-0.3159	0.6220	0.2578	0.6116
item*island	nailed, 2	0	0.0000	0.0000	.	.
item*island	pakaru, 1	0	24.3176	0.0000	.	.
item*island	pakaru, 2	0	0.0000	0.0000	.	.
item*island	rooted, 1	1	-0.5261	0.8977	0.3434	0.5579
item*island	rooted, 2	0	0.0000	0.0000	.	.
item*island	shagged, 1	0	-23.7751	0.0000	.	.
item*island	shagged, 2	0	0.0000	0.0000	.	.
scale	0	1.00	0.0000	.	.	

CONTRAST Statement Results

Contrast	DF	ChiSquare	Pr>Chi	Type
1 -2 for caned	1	0.1205	0.7285	LR
1 -2 for crusted	1	2.0742	0.1498	LR
1 -2 for demented	1	0.4148	0.5196	LR
1 -2 for nailed	1	3.4789	0.0622	LR
1 -2 for pakaru	1	1.0256	0.3112	LR
1 -2 for rooted	1	0.2466	0.6195	LR
1 -2 for shagged	1	0.9642	0.3261	LR

Alternatives to *munted* by Island and Decile, Model 1

Analysis Of GEE Parameter Estimates – Empirical 95% Confidence Limits

parameter		Est.	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	caned	-1.7778	0.8524	-3.4486	-0.1071	-2.086	0.0370
item	crusted	-5.2621	2.8400	-10.8284	0.3043	-1.853	0.0639
item	demented	-1.2278	1.0480	-3.2818	0.8263	-1.172	0.2414
item	nailed	-1.0972	0.7949	-2.6552	0.4609	-1.380	0.1675
item	pakaru	0.9442	1.9135	-2.8061	4.6946	0.4935	0.6217
item	rooted	-0.5770	1.1762	-2.8822	1.7283	-.4906	0.6237
item	shagged	-5.9302	2.0718	-9.9909	-1.8695	-2.862	0.0042
decile*item	caned	0.0352	0.1179	-0.1960	0.2664	0.2985	0.7653
decile*item	crusted	0.3261	0.3489	-0.3578	1.0100	0.9345	0.3500
decile*item	demented	-0.0494	0.1568	-0.3567	0.2580	-.3148	0.7529
decile*item	nailed	-0.0701	0.1120	-0.2897	0.1495	-.6255	0.5317
decile*item	pakaru	-1.3683	0.4780	-2.3053	-0.4314	-2.862	**0.0042**
decile*item	rooted	-0.2631	0.2053	-0.6654	0.1392	-1.282	0.1998
decile*item	shagged	0.4792	0.2439	0.0013	0.9572	1.9651	**0.0494**
item*island	caned, 1	-4.0436	2.5623	-9.0655	0.9783	-1.578	0.1145
item*island	caned, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

item*island	crusted, 1	4.0677	2.8930	-1.6026	9.7379	1.4060	0.1597
item*island	crusted, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	dmentd, 1	-0.9532	1.2025	-3.3101	1.4036	-.7927	0.4279
item*island	dmentd, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	nailed, 1	-3.8192	1.6065	-6.9679	-0.6705	-2.377	**0.0174**
item*island	nailed, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	pakaru, 1	-1.2079	1.9782	-5.0850	2.6693	-.6106	0.5415
item*island	pakaru, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	rooted, 1	-3.9425	2.0260	-7.9135	0.0284	-1.946	0.0517
item*island	rooted, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	shagged, 1	-1.4048	2.3781	-6.0659	3.2562	-.5907	0.5547
item*island	shagged, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dec*item*is	caned, 1	0.2756	0.3257	-0.3628	0.9140	0.8461	0.3975
dec*item*is	caned, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dec*item*is	crusted, 1	-0.4331	0.3628	-1.1443	0.2780	-1.194	0.2326
dec*item*is	crusted, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dec*item*is	dmentd, 1	0.1158	0.1807	-0.2383	0.4700	0.6410	0.5215
dec*item*is	dmentd, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dec*item*is	nailed, 1	0.4401	0.2066	0.0351	0.8450	2.1299	**0.0332**
dec*item*is	nailed, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dec*item*is	pakaru, 1	1.0598	0.4893	0.1008	2.0187	2.1661	**0.0303**
dec*item*is	pakaru, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dec*item*is	rooted, 1	0.4941	0.3035	-0.1008	1.0889	1.6279	0.1035
dec*item*is	rooted, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dec*item*is	shagged, 1	-0.0649	0.2505	-0.5559	0.4261	-.2591	0.7956
dec*item*is	shagged, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
scale	0.9498	.	.	.	.	.	

Alternatives to *munted* in North Island by Decile

Analysis Of GEE Parameter Estimates – Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	caned	-5.8694	2.4641	-10.6988	-1.0399	-2.382	0.0172
item	crusted	-1.1939	0.5505	-2.2729	-0.1150	-2.169	0.0301
item	dmentd	-2.1849	0.5900	-3.3413	-1.0286	-3.703	0.0002
item	nailed	-4.9464	1.4157	-7.7210	-2.1717	-3.494	0.0005
item	pakaru	-0.2588	0.5037	-1.2459	0.7284	-.5138	0.6074
item	rooted	-4.5420	1.6651	-7.8054	-1.2785	-2.728	0.0064
item	shagged	-7.4390	1.2649	-9.9182	-4.9597	-5.881	0.0000
decile*item	caned	0.3180	0.3075	-0.2847	0.9206	1.0340	0.3011
decile*item	crusted	-0.1070	0.0993	-0.3016	0.0876	-1.078	0.2812
decile*item	dmentd	0.0673	0.0895	-0.1082	0.2428	0.7518	0.4521
decile*item	nailed	0.3743	0.1756	0.0302	0.7184	2.1323	**0.0330**
decile*item	pakaru	-0.3097	0.1050	-0.5155	-0.1039	-2.950	**0.0032**
decile*item	rooted	0.2346	0.2245	-0.2055	0.6746	1.0447	0.2962

decile*item	shagged	0.4287	0.0632	0.3048	0.5526	6.7806	0.0000
scale	0.9621	.	.	.	.	.	

Alternatives to *munted* in South Island by Decile

Analysis Of GEE Parameter Estimates – Empirical 95% Confidence Limits

parameter		Estimate	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	caned	-1.7940	0.8592	-3.4779	-0.1100	-2.088	0.0368
item	crusted	-5.2689	2.8347	-10.8249	0.2870	-1.859	0.0631
item	dmentd	-1.2469	1.0539	-3.3125	0.8186	-1.183	0.2367
item	nailed	-1.1169	0.8001	-2.6851	0.4512	-1.396	0.1627
item	pakaru	0.6469	1.9854	-3.2444	4.5383	0.3258	0.7445
item	rooted	-0.6112	1.1802	-2.9243	1.7019	-.5179	0.6045
item	shagged	-5.9313	2.0752	-9.9986	-1.8640	-2.858	0.0043
decile*item	caned	0.0373	0.1186	-0.1952	0.2698	0.3145	0.7532
decile*item	crusted	0.3266	0.3478	-0.3550	1.0082	0.9392	0.3476
decile*item	dmentd	-0.0468	0.1570	-0.3546	0.2610	-.2977	0.7659
decile*item	nailed	-0.0674	0.1123	-0.2874	0.1527	-.5998	0.5486
decile*item	pakaru	-1.2624	0.4666	-2.1769	-0.3478	-2.705	**0.0068**
decile*item	rooted	-0.2576	0.2047	-0.6589	0.1437	-1.258	0.2084
decile*item	shagged	0.4790	0.2451	-0.0013	0.9594	1.9546	0.0506
scale	0.9314	.	.	.	.	.	

Alternatives to *munted* by Island and Decile, Model 2

Analysis Of GEE Parameter Estimates – Empirical 95% Confidence Limits

parameter		Est.	Std Err	Lower	Upper	Z	Pr>|Z|
intercept	0.0000	.	.	.	.	.	
item	caned	-2.2163	0.8760	-3.9332	-0.4993	-2.530	0.0114
item	crusted	-2.5165	0.7016	-3.8916	-1.1413	-3.587	0.0003
item	dmentd	-1.6955	0.6580	-2.9851	-0.4059	-2.577	0.0100
item	nailed	-2.4656	0.8160	-4.0649	-0.8663	-3.022	0.0025
item	pakaru	-2.0862	1.2670	-4.5695	0.3971	-1.647	0.0997
item	rooted	-1.9732	1.1620	-4.2507	0.3043	-1.698	0.0895
item	shagged	-5.7793	1.5843	-8.8846	-2.6741	-3.648	0.0003
decile*item	caned	0.1005	0.1132	-0.1214	0.3223	0.8876	0.3747
decile*item	crusted	-0.0582	0.0914	-0.2374	0.1210	-.6364	0.5245
decile*item	dmentd	0.0231	0.0809	-0.1355	0.1817	0.2858	0.7750
decile*item	nailed	0.1364	0.0945	-0.0488	0.3217	1.4434	0.1489
decile*item	pakaru	-0.3563	0.1127	-0.5772	-0.1353	-3.160	**0.0016**
decile*item	rooted	-0.0253	0.1517	-0.3226	0.2721	-.1664	0.8678
decile*item	shagged	0.4631	0.1865	0.0976	0.8286	2.4832	**0.0130**
item*island	caned, 1	-2.1763	0.8270	-3.7972	-0.5553	-2.631	**0.0085**
item*island	caned, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	crusted, 1	1.0906	0.6375	-0.1589	2.3400	1.7107	0.0871

item*island	crusted, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	dmentd, 1	-0.2427	0.4770	-1.1777	0.6922	-.5088	0.6109
item*island	dmentd, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	nailed, 1	-0.8338	0.5617	-1.9348	0.2672	-1.484	0.1377
item*island	nailed, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	pakaru, 1	2.0111	1.0927	-0.1305	4.1528	1.8405	0.0657
item*island	pakaru, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	rooted, 1	-0.9890	0.7771	-2.5120	0.5340	-1.273	0.2031
item*island	rooted, 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
item*island	shagged, 1	-2.0156	1.1618	-4.2927	0.2616	-1.735	0.0828
item*island	shagged, 2	0.0000	0.0000	0.0000	0.0000	0.000	0.0000
scale	0.9493	.	.	.	.	.	