

# **Social Stratification in Women's Speech in Rural Puerto Rico: A Study of Five Phonological Features**

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## **1. Introduction**

From the fall of 1982 to the summer of 1985, while teaching at the University of Puerto Rico in Mayagüez on the island's west coast, on numerous occasions I heard reference to "*la lechi de poti que toman en Lari*." Lares is a municipality in the mountainous interior of the western PR. The reference to "*lechi*," "*poti*," and "*Lari*" instead of "leche," "pote," and "Lares" attracted my attention because of my previous work with high-vowel features in northern Spain (Holmquist 1985, 1988). In PR, this refrain is people's way of characterizing traditional speech of the western highlands.

I first visited the community of Castañer in the southern region of the municipality of Lares in 1988. There I was introduced to a coffee farmer and his young American wife. With the help of this friendly couple over the next several years I came to know many people in Castañer. Eventually, between 1993 and 1997 I recorded conversations with 135 individuals in and around Castañer. Because of the size of this sample, I decided to limit my initial analysis to male speakers, whose recordings I had finished somewhat before those of the females. This allowed me to examine social factors conditioning speech without including gender. I have presented results of this work in several forums, including at the First Workshop on Spanish Sociolinguistics at Albany (Holmquist 2003). This presentation is my first of findings from the recordings with women.

## **2. The Community and the Sample of Women's Speech**

The town of Castañer lies in a narrow valley formed by the River Guayo. It has a population of approximately 2000 people, although several thousand more live on the mountainsides surrounding the community. Agriculture remains the dominant industry of the mountains with oranges, bananas and, above all, coffee being the principal crops.

In a number of ways, the story of Castañer is illustrative of the story of the mountainous interior of PR. Small subsistence farms, which predominated in the region until the middle of the 19<sup>th</sup> century, were rapidly converted into large coffee haciendas in the second half of that century. Beginning in the mid 1930's after the ravages of hurricanes and in the middle of the Depression, government programs subdivided numerous large haciendas, once again creating many small farms reminiscent of those that preceded the haciendas.

In some ways, however, the story of Castañer is special. Castañer did not exist as a town until the 1930's, when it was constructed on the sight of Hacienda San José, one of twelve haciendas belonging to the family of Juan Castañer. The construction project was administered by the government of PR and funded by the Roosevelt administration in the US. Castañer was also the sight of one of the first two hospitals built in the interior of PR in 1942 and of the interior's first high school. Both the hospital and the high school were begun by church groups from the US that had come to PR as pacifists doing alternative service during WWII. As a result of the construction project and the presence of the hospital and the high school, Castañer's development preceded that of many areas in the interior of the island.

The analysis presented, here, uses two samples of Castañer women that reflect aspects of the social history just described. The first is a sample of three generations. These are generations in the sociological sense or, as described by the Spanish anthropologist Carmelo Lisón-Tolosana, age groups "... of men and women who share a common mode of existence or concept of life" (Lisón-Tolosana

1966: 181-201). Many women 65 and older at the time of the interviews experienced life as resident laborers on the haciendas before the construction of the town of Castañer; those between the ages of 40 and 65 were formed during the formation of the town of Castañer; and a young, under 40 age group grew up with Castañer, its schools and hospital a reality, and benefiting from their existence from a very early age.

Sample 1 includes 10 women from each of these three generations, or age groups. Each group of ten individuals is also subdivided according to network ties, 5 characterized as having closed-network ties within the community and 5 as having more open relationships reaching out to the world beyond. I scaled network ties using a procedure similar to that described in Milroy (1980), by assigning points to individuals based on selected criteria. The criteria, in this case, are time of residence in and outside of Castañer, membership in local groups, education level (with higher education requiring study outside of the community), and membership in families whose primary source of income is the cultivation of coffee.

Sample 2 focuses on the employment of women in Castañer. It is made up of 20 women from the middle, or 40 to 65 age group, who are employed in farming, local business, the local schools and the hospital (with 5 in each category), and 5 return-migrants from the same age group. These last are women employed in non-agricultural activities who have been reintegrated into life in Castañer after extended residence on the US mainland or in the metropolitan area of the island.

With only four exceptions, the women included in the samples were born in or near Castañer; the exceptions are from similarly rural, mountain communities in western PR. With nine exceptions, the women in the samples have indicated that their fathers were either farmers or farm laborers, a fact that reflects the originally homogeneous nature of the community. To a large extent, the goal of this sociolinguistic experiment is to determine to what degree the social and economic changes that have taken place in Castañer over time are reflected in the recorded speech of the women sampled. It should also be possible to determine whether or not John Lipski's assertion that vertical stratification has become the dominant sociolinguistic differentiator in PR is correct even in this small, rural community (Lipski 1994: 328).

### 3. Linguistic and Stylistic Conditioning of Features

Five diagnostic phonological variables will be used in this analysis. Each variable opposes a phonological feature associated with dialectal speech in west-central PR and a competing feature associated with coastal and, today, more urban areas of the island. Linguistically, west-central PR was characterized by Tomás Navarro Tomás in his seminal study done in the early 20<sup>th</sup> century as highly conservative (Navarro Tomás 1948).

Both linguistic and stylistic conditioning of variable usage are evident in the data, which are drawn from semi-directed conversations. The conversations range from one to two hours and center on topics of community, family, church, education, employment, and politics. Overall analyses, here, are based on 120 sequential tokens per speaker for each of two vocalic variables: high, word-final i and u (in competition with word-final e and o as well as to the raised-e and raised-o variants transcribed as [I] and [U] in tables 1 and 2, below). Analyses are based on 150 and 50 sequential tokens, respectively, for variables examining the preservation of syllable-final r and of syllable-final l (as opposed to lateralization, in the first case, and rhotacism, in the second). Finally, they are based on an average 40 tokens per person for the posterior, usually velar fricative long rr that is unique to PR in the world of Spanish dialectology (and contrasts with alveolar articulations). Half of the tokens, in each case, were drawn from the earliest portion of the conversation and half from later portions, usually the second half-hour.

Tables 1 and 2 present results for phonological conditioning of the vocalic variables. It should be observed first that, overall, the high and raised-mid variants of the front- and back-vowel variables are not the most frequent in the data. As was found by Navarro Tomás, however, high-vowel usage is strongly associated with preceding high tonic vowels and also preceding palatal consonants (as in “dule[i]” and “call[i]” or in “pin[u]” and “mach[u]”). In tables 1 and 2, we see also that the results for the two vocalic variables are very similar.

**Table 1****Final Vowels by Preceding Tonic Vowel**

		Final Front Vowel			Final Back Vowel		
		-e	-I	-i	-o	-U	-u
<b>Non-High</b>	N	1638 67%	439 18%	363 15%	1403 70%	180 09%	422 21%
<b>Hi-Glide</b>	N	380 52%	150 20%	202 28%	384 60%	86 13%	175 27%
<b>High</b>	N	176 41%	78 18%	174 <b>41%</b>	442 47%	80 08%	428 <b>45%</b>
<b>Overall</b>	N	2194 61%	667 19%	739 21%	2229 62%	346 10%	1025 28%

**Table 2****Final Vowels by Preceding Consonant**

		Final Front Vowel			Final Back Vowel		
		-e	-I	-i	-o	-U	-u
<b>Non-Palatal</b>	N	2171 62%	658 19%	698 20%	2148 64%	312 09%	900 27%
<b>Palatal</b>	N	23 32%	09 12%	41 <b>56%</b>	81 34%	34 14%	52 <b>52%</b>
<b>Overall</b>	N	2194 61%	667 19%	739 21%	2229 62%	346 10%	1025 28%

Style for this study was gauged in terms of more or less monitored styles. Following at least the sense of Labov (1972), I assumed that the outset and early portions of an utterance would be more carefully monitored, or less spontaneous, than later ones. I compared findings for the first line, for the second line, and for later lines of text of the recorded conversations. I also expected that utterances occurring early in the discourse, or conversation as a whole, might be less spontaneous than those occurring later and compared the half of the tokens occurring at the beginning of the conversation with the half occurring later. Because of limitations of time I will not present these data here, nevertheless both expectations with regard to monitoring were born out for the high [-i] and [-u] variants of the vocalic variables. More potential for monitoring correlates with decreased use of the dialectal vocalic features in the sample.

Table 3 displays results for phonological conditioning of dialectal, usually velar, long rr, as in “el ca[x]o de [x]osa”. Dialectal usage has been interpreted here as excluding any alveolar quality. Overall use of the dialectal long rr is higher than for the dialectal vowel features. The velar is favored in word-initial position and following a pause, positions in which the feature is very audible. Also, with regard to monitoring, unlike the vocalic features the velar occurs most frequently early in the utterance, in the first or second line. Although associated with rural origins by Navarro Tomás (1948) and later in studies like that of Humberto López Morales (1983) in the city of San Juan, velar rr is encountered in urban centers and across the island, and may not be without prestige, especially in Castañer.

**Table 3**

**Velarization of [-rr] by Preceding Phonological Feature and Position in Word**

		Preceding Feature				Position in Word	
		-rr	-x			-rr	-x
<b>Vowel</b>	N	329	503	<b>Internal</b>	N	190	279
		40%	60%			41%	59%
<b>Cons.</b>	N	91	140	<b>First</b>	N	260	421
		39%	61%			38%	<b>62%</b>
<b>Pause</b>	N	30	57	<b>Overall</b>	N	450	700
		34%	<b>66%</b>			39%	61%
<b>Overall</b>	N	450	700				
		39%	61%				

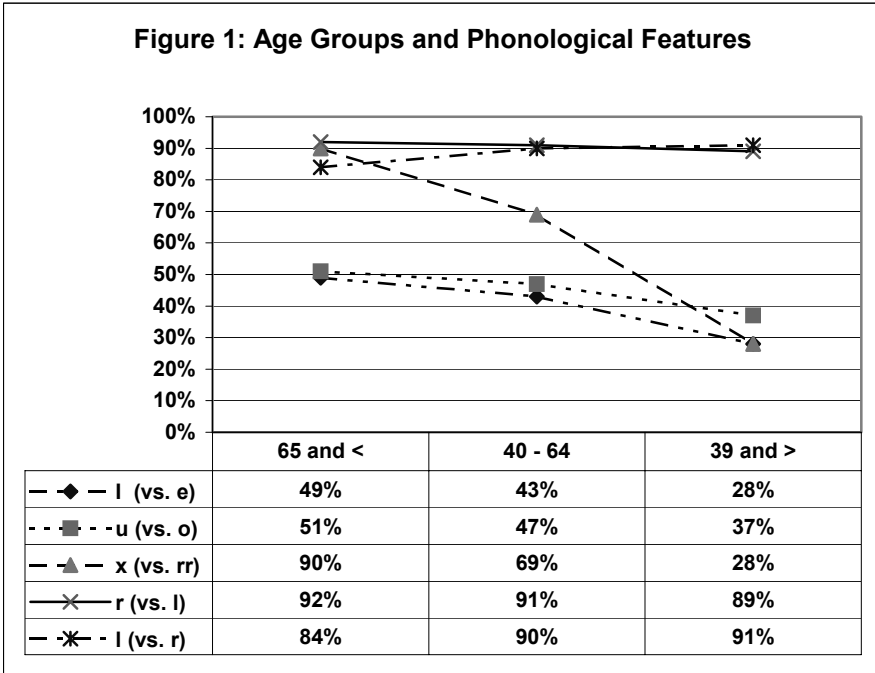
Finally, in tables 4 and 5, we find that the preservation of the regional dialectal features, syllable-final r̥ and ɹ̥, remains extremely high in this sample of women’s recorded speech. In most instances preservation of syllable-final r̥ and ɹ̥ also corresponds to standard usage; however, preservation of final r̥, here, is understood as meaning any non-lateralized rendition, including elision. Lateralization of syllable-final r̥ (as in “acue[l̥]do” or “trabaja[l̥]”) has been associated most closely with the urban, northeastern end of the island, while rhotacism of syllable-final ɹ̥ (as in “a[r̥]guien” or “igua[r̥]”) has been linked to the southwestern corner. Table 4 shows that, although lateral renditions of r̥ are very infrequent in the data, they are most likely in word-final position and before a pause. They are being inserted in audible positions, suggesting that in this rural community, the lateral emanating from the northeastern metropolitan end of the island may have some prestige quality. As may be seen in Table 5, the opposite is true for the rhotacism of ɹ̥, which while equally infrequent is favored word-internally and not by the pre-pause position. Occurrences preceding [n] and [l] are excluded from the analysis in Table 4 and occurrences before [n] and [r] are excluded in Table 5.

**Table 4****Preservation of [-r] by Following Phonological Feature and Position in Word**

		<b>Following Feature</b>		<b>Position in Word</b>			
		-r	-l	-r	-l		
<b>Vowel</b>	N	663	68	<b>Internal</b>	N	1773	171
		91%	09%			91%	09%
<b>Cons.</b>	N	2222	210	<b>Final</b>	N	1508	252
		91%	09%			86%	<b>14%</b>
<b>Pause</b>	N	396	145	<b>Overall</b>	N	3281	423
		73%	<b>27%</b>			89%	11%
<b>Overall</b>	N	3281	423				
		89%	11%				

**Table 5****Preservation of [-l] by Following Phonological Feature and Position in Word**

		<b>Following Feature</b>		<b>Position in Word</b>			
		-l	-r	-l	-r		
<b>Vowel</b>	N	110	21	<b>Internal</b>	N	466	75
		84%	<b>16%</b>			86%	<b>14%</b>
<b>Cons.</b>	N	765	96	<b>Final</b>	N	758	95
		89%	11%			89%	11%
<b>Pause</b>	N	349	53	<b>Overall</b>	N	1224	170
		87%	13%			88%	12%
<b>Overall</b>	N	1224	170				



#### 4. Social Conditioning and Stratification

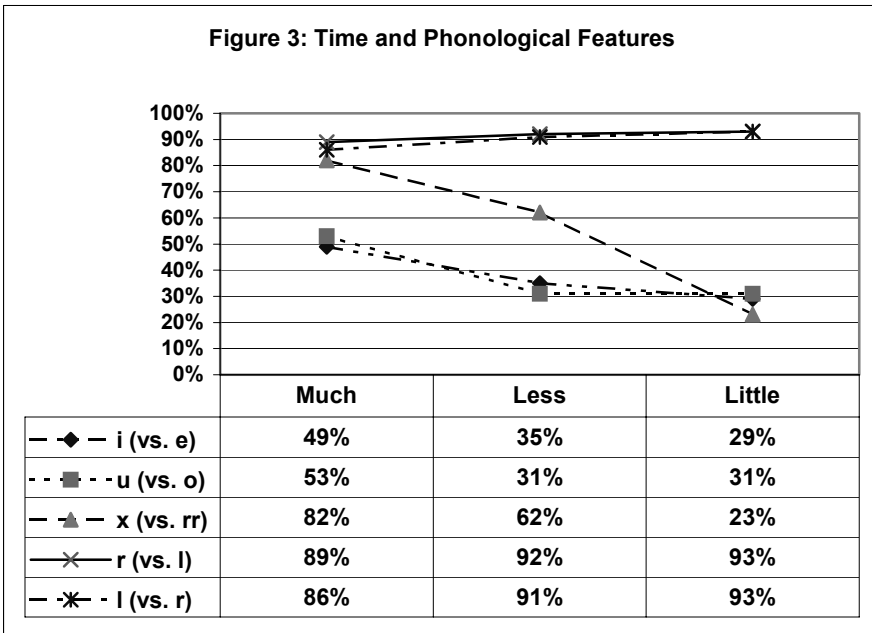
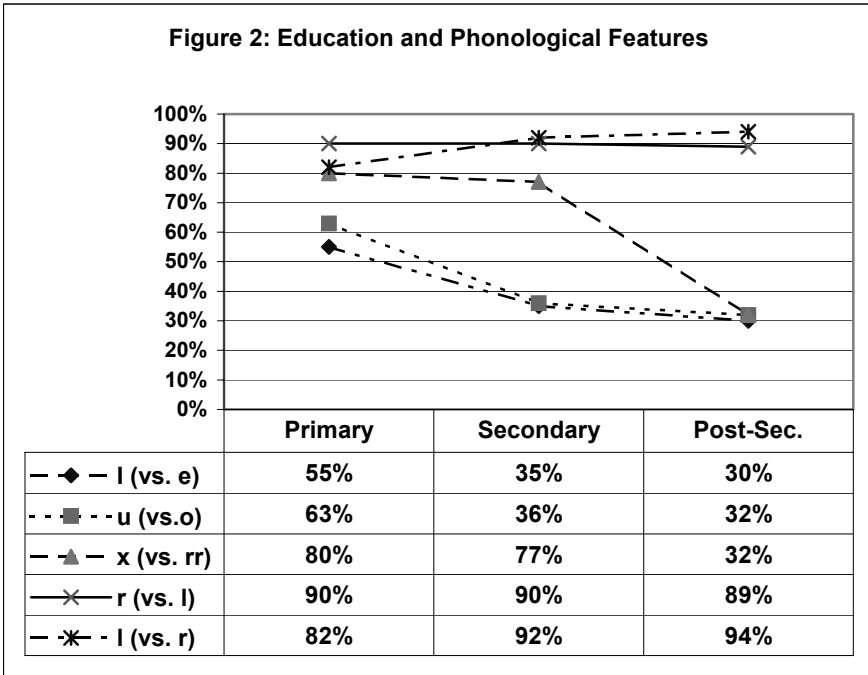
As the results for linguistic and stylistic conditioning have already hinted, social conditioning of dialect usage has become highly significant in rural Castañer and is reflected in the data gathered for this study. In the data, however, findings for the three phonological features that are markers, or even stereotypes, of rural speech (high [-i] and [-u] and velar rr) are strikingly different from those that are not, that is, the preservation of syllable-final ɾ and ɹ.

As indicated earlier, Sample 1 for this study organizes speakers according to both age group and network type, closed and open, as determined by criteria reflecting time in Castañer, membership in local groups, educational experience, and dedication to farming activity. Varbrul analyses for the combined application of age and network type in describing the data may be seen in Appendix I. The combined applications are statistically significant for all but the preservation of syllable-final ɾ variable, although sociolinguistic patterns are present in its use as well. At this point, I will highlight findings for age group, or generation, and those for two of the criteria used to determine network type: educational experience and time. Results for word-final [-i] and [-u] in the figures presented, here, are for the position after high tonic vowels.

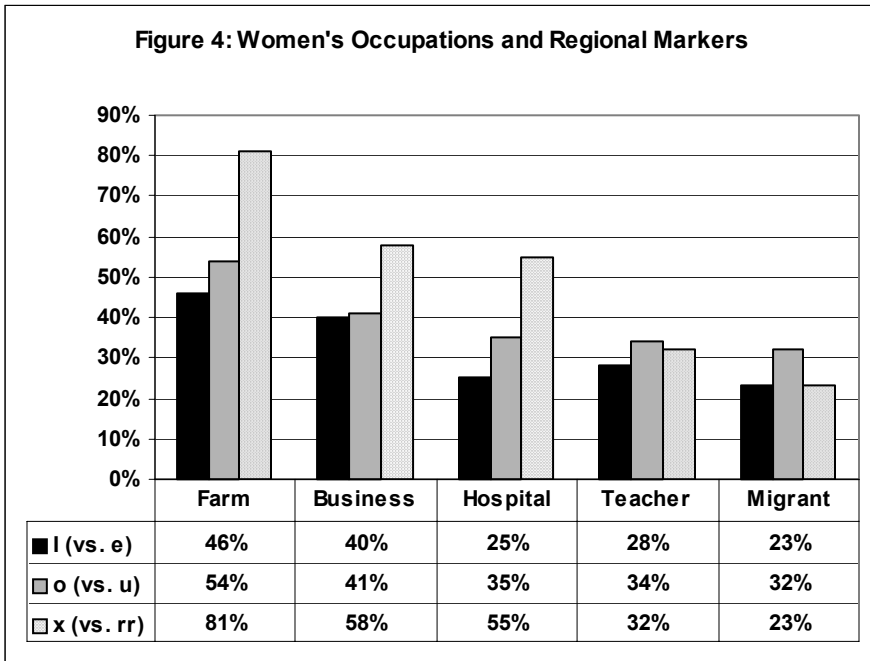
For age groups, Figure 1 shows clear stratification in the use of the dialectal markers by women in the recorded conversations. The decline is greatest, however, among the youngest speakers. Velar rr enjoys popularity among all but the youngest. Preservation of syllable-final ɾ and ɹ, features that do not connote ruralness but are dialectal in this case, remains very high. Final ɾ drops off slightly, however, in younger speakers and final ɹ is reduced among the oldest.

Similar results are found for education and time in figures 2 and 3. It is interesting to see that in three of four instances more education and relatively little time in Castañer support preservation of ɾ and ɹ, conceivably based on heightened awareness that they also belong to the standard. Velar long rr declines most among young women with the highest levels of education and relatively little time in Castañer. The decline in the use of the high-vowel features is greatest from primary to secondary education and from the most to lesser amounts of time in Castañer. Varbrul analyses for education and time, and for the dedication-to-farming criteria used to determine network type are seen

in Appendix 2. I have excluded the membership-in-local-groups factor from the analyses in Appendix 2 because it does not reveal consistent patterns of correlation with feature use for the women of Sample 1.



Finally, we examine results for the second sample of women included in this study, the sample of occupation groups. Whereas farming was contrasted simply with non-farming in determining network type, here it is possible to contrast women employed in farming with women employed in other occupation categories in Castañer and with the group of return migrants dedicated to a variety of activities other than farming.



In Figure 4, only the features that may be characterized as markers of regional speech are used. We see that economic activity is relevant to the women included in this sample. Women who are farmers and women whose businesses depend on the economy of the farmers have used the rural features most. Hospital workers and teachers, whose incomes derive less directly from agricultural industry, use the rural features less. Return-migrants who are not dedicated to agricultural activity use the dialectal features least.

### 5. Conclusion

One of the most striking results in this study of phonological features in recorded conversations with women in Castañer is the clarity seen in the patterns of variation viewed in terms of linguistic, stylistic, and social conditioning, with the exception of the case of the membership factor already mentioned. Although these findings have been presented in isolation from those for men in Castañer - and the data have been developed separately - they are very similar in terms of both patterns and frequencies to those encountered for men in my earlier studies (Holmquist 2003, 2001, and 1998). This outcome suggests that sociolinguistic norms in the Castañer community are very strong.

Finally, it seems safe to conclude that as John Lipski has suggested vertical sociolinguistic stratification is a dominant feature of Puerto Rican Spanish even in this rural community. It is evident as well, however, that traditional dialectal usage, or usage very close to it, is also still present among those who maintain strong ties to life and the agricultural economy in the western highlands of PR.



## APPENDIX I

### Varbrul Analysis of Five Features For Age and Network Type

#### Word-Final [-i]

65 < = .58    40-64 = .52    39 > = .38  
 Closed = .56    Open = .44  
 LOG LIKELIHOOD = -1783.701 SIGNIFICANCE = .000

#### Word-Final [-u]

65 < = .57    40-64 = .53    39 > = .40  
 Closed = .57    Open = .41  
 LOG LIKELIHOOD = -2072.305 SIGNIFICANCE = .000

#### Velarization of rr (x)

65 < = .83    40-64 = .59    39 > = .16  
 Closed = .70    Open = .30  
 LOG LIKELIHOOD = -530.778 SIGNIFICANCE = .000

#### Preservation of Syllable-Final -r

65 < = .53    40-64 = .50    39 > = .47  
 Closed = .45    Open = .55  
 LOG LIKELIHOOD = -1397.897 SIGNIFICANCE = .124

#### Preservation of Syllable-Final -l

65 < = .40    40-64 = .53    39 > = .57  
 Closed = .38    Open = .62  
 LOG LIKELIHOOD = -507.833 SIGNIFICANCE = .001

## APPENDIX II

### Varbrul Analysis of Five Features For Network Criteria: Education, Time in Castañer, and Farmer Status

#### Word-Final [-i]

Primary = .56 Secondary = .50 Post-Sec. = .43  
 Much = .52 Less = .53 Little = .41  
 Farmer = .52 Non-farmer = .48  
 LOGLIKELIHOOD = -1788.764 SIGNIFICANCE = .011

#### Word-Final [-u]

Primary = .59 Secondary = .44 Post-Sec. = .44  
 Much = .52 Less = .54 Little = .41  
 Farmer = .54 Non-farmer = .47  
 LOGLIKELIHOOD = -2077.820 SIGNIFICANCE = .007

#### Velarization of rr ([x])

Primary = .59 Secondary = .53 Post-Sec. = .38  
 Much = .63 Less = .58 Little = .24  
 Farmer = .68 Non-farmer = .36  
 LOGLIKELIHOOD = -552.686 SIGNIFICANCE = .000

#### Preservation of -r

Primary = .56 Secondary = .52 Post-Sec. = .43  
 Much = .45 Less = .52 Little = .62  
 Farmer = .45 Non-farmer = .56  
 LOGLIKELIHOOD = -1392.909 SIGNIFICANCE = .000

#### Preservation of -l

Primary = .36 Secondary = .57 Post-Sec. = .62  
 Much = .51 Less = .47 Little = .50  
 Farmer = .45 Non-farmer = .55  
 LOGLIKELIHOOD = -506.677 SIGNIFICANCE = .197

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