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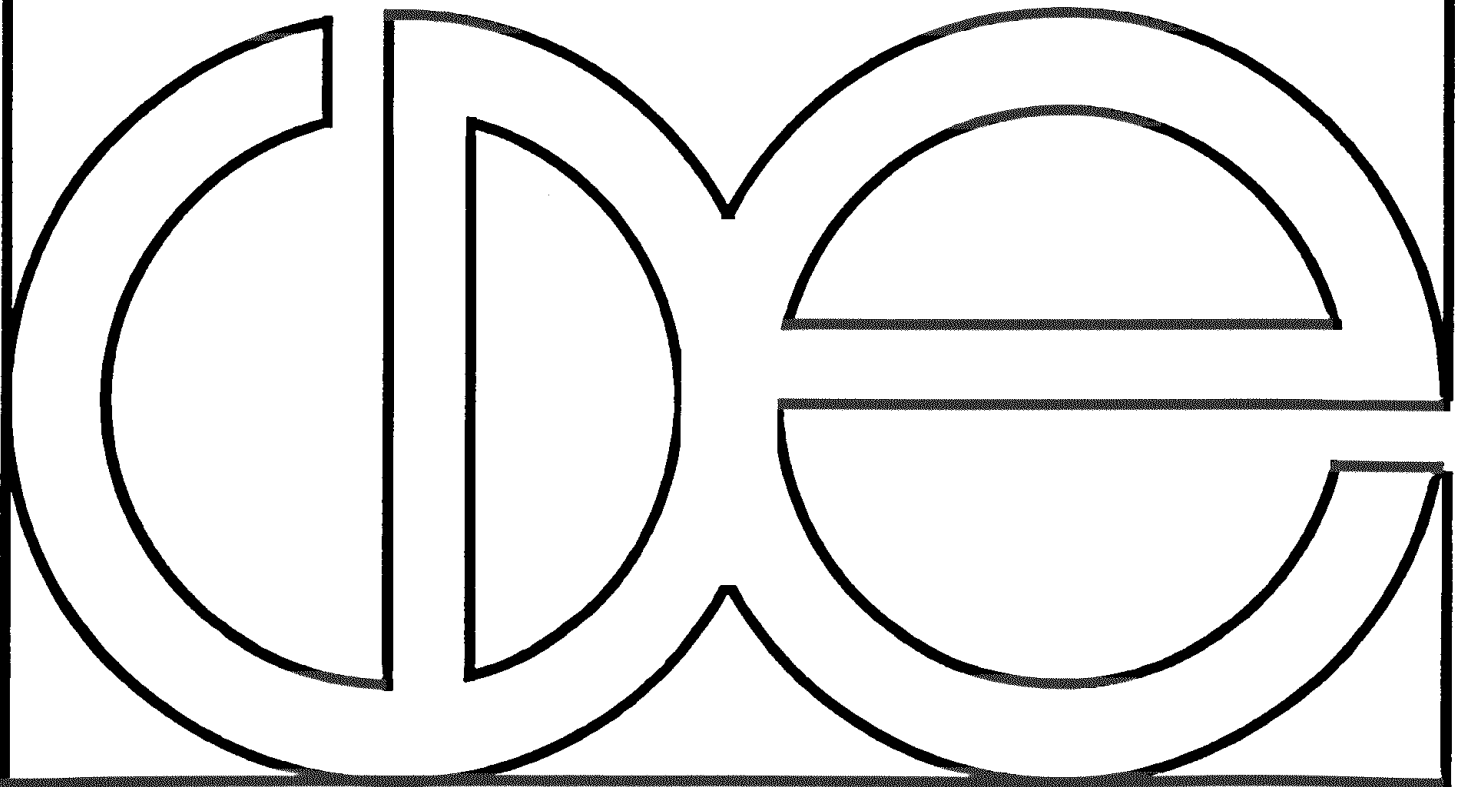
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**THE RELATIVE CONDITION OF MOTHERS
WHO HEAD HOUSEHOLDS BY THEMSELVES
COLOMBIA, 1985**

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ABSTRACT

This paper uses a nationally-representative sample of the 1985 Colombian census to explore the relative well-being of mothers 15-59 who head their own households relative to mothers who do not. We look at Colombia in part because, even as only one of twenty or so Latin American countries, part of Colombia is Andean in nature, part of it is 'Caribbean,' part is Amazonian and part is distinctly 'Colombian.' We use information from the housing as well as population census, partly because common sociological indicators of well-being derivable from the population census tend to be male-based, a distinct disadvantage when studying women. The study finds some support for the idea that women head households out of 'constraint' rather than 'choice,' but the results most of all point to the complex nature of the issue of female headship. The study ends by suggesting directions for further research.

INTRODUCTION

This paper compares the well being of women 15-59 years old who have living children by whether or not they head their own households in Colombia in 1985 using data from the national census. In general, the economic situation of so-called female-headed households has been compared with that of so-called male-headed households; and it is generally agreed that it is worse. Children in female-headed households may also be less well off. The general trend seems to be that female-headed households are becoming more common, and some people are questioning whether "development" is really increasing the general welfare. While we hardly wish to quarrel with the implications of study findings or take on the question of change here, we do take issue with several facets of the way studies of the issue have been conceptualized, with the hope that we may help clarify some of the issues.

First, and we are hardly alone in this observation, households that are generally called "male-headed" are in fact often "couple-headed." If one really wanted to compare male-headed households with female-headed households, then households in which there was a male adult but no female adult should be compared with households in which there was a female adult but no male adult. As it stands, many comparisons are actually more confusing than illuminating because it is misplaced to conclude that a lower level of welfare of female-headed households compared to other households is due to the fact that they are female-headed households rather than single-parent households. Here, we simply compare **women** themselves by whether they alone head a household or not. This obviously does not address the issue of whether it is really the difference between dual headship versus single headship that people are observing when they observe a male-female headship difference, but at least we compare **women** themselves.

Second, and related to the first issue, is that female-headed households (households in which they do not share headship with another adult) are

comprised of several very different kinds of households even barring considerations of class or ethnicity. When talking of female-headed households many people are really talking about women-headed households that contain dependent children. Yet to a gerontologist, the image conjured up is that of an old widow past her childrearing years while to another a female-headed household is that of a single woman living alone or with non-relatives. In the 1985 Colombia data for example, 43 percent of all women household heads were 60 years or above, our arbitrary cut off of when most women probably no longer have dependent children at home, and an additional 0.3 percent of the 15-59 year old female heads had no living children. Since issues of social change and social reproduction surrounding older and/or childless women are different from those surrounding younger mothers, we find it most useful to limit our analysis to women 15-59 years of age who had living children.

Third, it is generally not clear that, controlling for such factors as literacy, educational attainment or age, women in female-headed households are better or worse off than **women** in couple-headed households. It appears that most studies have either focussed on the entire household or on children but not on the women themselves. This gap is glaring because some have argued that a household that does not have to maintain an unemployed male may be better off both economically and emotionally than a household that has the married male who may even be abusive as well as a "free loader" (see Chant, 1985). Others have argued that if a man cannot support his family, he may be inclined to abandon it rather than be in the position of a "free loader" (see for example Buvinic and Youssef, 1978; Buvinic, 1990). Another possible reason for a rise in female-headship is that women find the economic opportunities necessary to maintain an independent household, and they often prefer to do so when able irrespective of a man's situation (see Morrissey, 1989). Basically, there is a question of whether the rise in female-headed households is by choice or constraint and whether "development" is having a destructive or constructive effect on the family. It seems to us that a good way to address the issue of "choice or constraint" in a modest way is to

compare women who head their own households to women who do not. This way, it is possible to compare women who ostensibly have many similar characteristics but different household arrangements. Women who do not head their own household at the time of enumeration can still be considered "at risk" of doing so.

Fourth, measures of the economic well-being of female-headed households used in many studies leave much to be desired. For instance, how does one measure income in contexts in which there are many monetary and non-monetary factors in a household's welfare? Even if one settles on a measure, does one then go on to measure **per capita** income using the very questionable assumption that money is distributed evenly among household members? Or how do you evaluate the ownership of property? While economists may struggle with these issues, sociologists struggle with other ones that are similarly problematic. For a major sociological variable used to indicate socioeconomic status and indirectly well-being is occupation, specifically a male's occupation for the women's socioeconomic status is supposed to be derived from that of her husband or father (if she is not yet ever married). For if one simply were to look at a woman's occupation, even if she were working and actually had an occupation aside from homemaker, one might conclude that she was in a lower status than she actually was since women often have occupations that their husbands would not even consider. The situation regarding the measurement of "class" is even more dismal (for a discussion of some of the issues, see Portes, 1985). So how can one measure economic well-being?

Educational attainment is one way to measure socioeconomic status because Colombian girls as well as boys go to school and because girls tend to go to school for almost as long a time. Housing characteristics constitute another. If people are crowded together into a small dwelling, if a household lives in a dwelling without running water nor one that is hooked up to a sewage system, cannot this information tell us a lot about physical well being? This will be discussed at greater length in a following section.

Background

Colombian society is in many respects several different societies which together help represent different parts of Latin America (although there is no country that can truly do this). In pre-Columbian times the country was occupied by a sophisticated sedentary agricultural group of Indians organized by the Chibcha, less civilized groups of Chiefdoms and finally unorganized hunter/gatherer groups (Steward and Faron, 1959). This diverse "country" was under Spanish rule for over 300 years, comprising its New Granada viceroyalty along with present-day Panama, Ecuador and Venezuela. Centered in Santa Fe de Bogota (Bacata to the Chibcha), New Granada was not very prosperous for Spain compared to Peru or New Spain (Mexico and Central America) and was perhaps even more isolated from it as a result. Still, it was very important that the colony maintain a modicum of Spanish culture and even today it is reported that "Educated Colombians regarded themselves as custodians of the Spanish language brought to the New World by the conquistadores and missionaries..." (Blutstein et al., 1976: 55). Although the exact date is not clear, Colombia became independent from Spain around 1819, and broke off from Ecuador and Venezuela. This was about the time that most Latin American countries were gaining independence from Spain. Colombia lost the region of Panama in 1903.

One of the important legacies of Spanish rule was the pervasiveness of the Roman Catholic Church, also the case in much of Latin America. However, "The Colombian church is widely noted as one of the most conservative and tradition oriented in Latin America, and Colombians are among the most devout of Latin American Catholics. ... The parish church is recognized as the center of nearly every community, and the local priest is often the major figure of authority and leadership" (Blutsein et al., 1976:125). Priests are similar to others in Latin America however in that some are strong advocates of social change and social justice, even to the point of advocating violence and terrorism, while others are quite conservative and ally themselves with traditionalism and non-involvement in reform. In Colombia as elsewhere, there has been a complicated relationship between church and state, and for a long

time the only type of marriage recognized by the state was the religious marriage of two Catholics. This has changed, but the tension in Colombia, as elsewhere, between church and state is still very much present.

Another feature of Colombian society that seems to be a legacy of Spanish rule throughout much of Latin America is the rather high level of stratification. The class structure has sometimes even been called caste-like because there is such little vertical mobility, educational achievement being an important avenue for what little mobility there is. In some eyes, one can consider four major classes: an upper class of about 5 percent of the population, a middle class of about 15 percent, a lower class of about 50 percent, and "the masses" comprising another 30 percent (Blutstein et al., 1976).

By 1985, Colombia's roughly 27 million people appeared to have accomplished most of a demographic transition of mortality and fertility. "The crude mortality rate decreased from 30.5 to 9 per thousand, and the infant mortality rate from 200.2 to 61 per thousand, between 1938 and 1978" (Florez and Bonilla, 1991: 55). Life expectancy at birth rose from 44 to 61 years. (One can hope it will eventually rise to somewhere in the 70s.) The total fertility rate decreased from 7 in 1960-1964 to 4.6 in 1972-1973 and to 3.6 in 1980. By 1985, it was estimated to be 3.2 births per woman (Florez and Bonilla, 1991:55). (Replacement level is somewhere between 2.1 and 2.5.) Palloni (1990) estimates the country to be within the 'middle' group of Latin American countries, countries that were not forerunners but not lagers either regarding demographic changes. The countries experienced rapid mortality decline after WWII but their fertility began to decline in earnest only by the late 1960s or early 1970s.

Related to the demographic changes perhaps, has been the society's massive urbanization, a growth in its industrial capacity and advancements in total domestic product and **per capita** gross domestic product although the economic situation of the middle 1980's was rather dismal. "The percentage of the Colombian population living in rural areas fell from nearly two-thirds in

1951 (64 percent) to just over one-third in 1973 (36 percent)..." (Wilkie, 1984: 191). Industry surpassed agriculture as the major contributor to Colombia's gross domestic product in the early 1970s (Blustein et al., 1976). Colombia's gross national product (GNP) grew during the 1970's in constant dollars, declined in the early 1980's, and then climbed again. **Per capita** GNP also grew during the 1970's but then fell until perhaps the latter part of the 1980s (from various years of the Statistical Abstracts of the United States). This should be kept in mind as we try to interpret 1985 census figures because "doubling up" may have been a strategy used to accommodate to less income even if it was not preferred, and the census was conducted under far from ideal financial circumstance.

To say that the country has experienced vast increases in urbanization and industrialization is in no way to imply that Colombia is not an underdeveloped, perhaps "dependent," country. Just consider the fact that Colombia's **per capita** gross national product in 1989 was \$1,139 compared to \$20,910 in the United States in 1989 constant US dollars (Statistical Abstract of the United States 1992: 831). And as a measure of central tendency, *per capita* says nothing about the distribution of income which, by all accounts, is quite skewed. Still, *per capita* is the best we have, and using 1982 figures, Wilkie (1984: 191) ranked Colombia "12 among the twenty Latin American republics in that category."

Colombia is different from much of Latin America in that it has no primate city that dominates the whole country. Rather, each region (or sub-region) has its own dominant city, which is why we can say that the one country actually can help represent different parts of Latin America. It has been just too difficult to traverse the many geographic barriers, mountains and rivers, to make one city the hub of all activity. Colombia has three major ranges of the Andes Mountains where most of the people live. East of these mountains is a large plain, partly crossed by rivers, part open and part tropical jungle. This plain is sparsely populated and is mentally often not even considered part of Colombia. The four largest cities are Bogota,

Medellin, Cali and Barranquilla in the states of Cundinamarca, Antioquia, Valle del Cauca and Atlantico respectively but there are other major cities as well. See Figure 1.

The country has been broken up into many different region schemes depending on the scheme's use, but they all are based on the country's geography. For instance, in a general sense, there are four major regions:

1. An **Atlantic** region that in some respects is the first region of Spanish settlement in the country and is more Caribbean in nature than South America. The region is northwest of the Andean mountains and has a mountain area of its own along with lowlands. Part of this area is densely settled and hosts the port cities of Cartagena and Barranquilla (see Figure 1). The population tends to be a mixture of whites, Indians, *mestizo* (people of mixed white and Indian blood), and along the coast, blacks and *mulatto* (people of mixed black and white blood). Coupled with such mixture we can say that the region is heterogeneous ethnically too. For instance, in the department of La Guajira near Venezuela are the Guajiro Indians, a fairly prosperous group engaged in cattle ranching.

2. A **Pacific** region that borders the Pacific Ocean but also includes related riverine areas. Along the coast and waterways, its sparse population is largely black, *mulatto*, Indian and *zambo* (a mixture of Indian and black blood). The major city on the coast is Buenaventura. The area is more homogenous in many respects, and could be said to have many qualities that are distinct from the rest of the country.

3. A **Highlands** region that includes the slopes, valleys and Andean mountains themselves. This area contains most of the inhabitants of Colombia, including many rather traditional peasants. It is where the Chibcha originally had their kingdom and is now where the national capitol is located. In general, the people in the mountainous areas are white, Indian or a mixture of the two called *mestizo*. The region is not inhabited by just one ethnic group however and some people tend to be patrifocal while others, like the

Antioqueños, tend to be matrifocal.

4. The *Llanos* or plains to the south and east of the mountains. This area too is sparsely populated, in part by Indian groups who have not yet been "civilized." Most of it is comprised of "national territories" that have not yet gained the recognition of "department".

As might be suspected from the diversity in geography, Colombia is comprised of many different ethnic and racial groups that have, over a long period of time, mixed. Unfortunately, the Colombian Census has not gathered data on race or ethnicity for a long time. But people still manage to find pertinent information. For instance, Angulo-Novoa (1980) lists Colombia's probable racial composition circa 1960 as: 20 percent Caucasian, 24 percent *mulatto*, 48 percent *mestizo*, 6 percent Negro, and 2 percent Indian. Blutstein et al. (1976) list it circa 1976 as being 20 percent white, 50-60 percent *mestizo*, 15-25 percent *mulatto*, 4 percent black and 1 percent Indian. Like elsewhere in Latin America, race or ethnicity is an important component of the country's class structure in which whites tend to be at the top, followed by the *mestizo*, the *mulatto*, and then the Indian and the black.

The Colombian census follows the government in dividing the country into politico-administrative units called departments and national territories. These follow geography in one sense, but make it difficult to use them as the basis for regionalization in another because, as is common, the departmental borders do not always coincide with ethnic borders. Since we propose a regionalization scheme that differs from others that we have found but that accords with certain demographic factors, we discuss this further below.

THE STUDY

The Data

This study uses a microfile of the 1985 Colombian census of the population and dwellings. The microfile constitutes 9.7 percent of the entire population, and is limited to private (as opposed to collective or institutional), nonindigenous households that answered the "long form" and their members. The data set has records for a *de jure* enumeration of 2,643,125 people and 523,002 dwellings. This study focuses on approximately 18.4 percent of the people, women 15-59 years of age who have had at least one child.

For enumeration purposes, a *vivienda* or **dwelling** was defined as a place that had a separate space, independent access and that served human food. In contrast, a *familia* or **household** is a group of persons related through marriage, their children, other relatives, or nonrelatives who live together and share food. People can live in the same *vivienda* but eat separately, in which case they are **not** part of the same household. Unfortunately, the way the data were collected forces us to consider dwellings instead of households. The census-takers apparently considered the issue but decided to use dwelling instead of household noting that they were often considered synonymous anyway. But then it observed that one study of Bogota found a ratio of 1.03 households per dwelling while a national study of households found a ratio of 1.33 (DANE, 1986: 27). Still, the census followed the recommendations of an expert group that judged that the additional information possibly obtained did not justify using the household rather than the dwelling as the unit of analysis. Here, we talk about female-headed households but in reality can only report on female-headed dwellings. What difference this might make is unclear--it could be negligible--but we think it worth noting.

A second feature of the census is that it designates one person as the

"head" of every dwelling, even dwellings that are in actual fact headed by a couple. Thus we find that 55.5 percent of the heads are reported to be married, 67.6 percent of the male heads and 15.4 percent of the female heads. If we insist that only married people (or those in a consensual union) can head households if they do not reside with a spouse or mate, then we require that the marital status variable have the categories of "married spouse absent" and "consensual union-mate absent" in order to differentiate people who really can be heads from people who are co-heads. As it is the census does not have those categories. So we had to make them, and can report that half (49%) of the women "heads" aged 15-59 who had a living child and who were in a union were not living in a household with a spouse; the other half were (at least on a *de jure* basis), and we must place them in the "non-head" category although the census lists them as the "head."

A third feature of the 1985 Colombian census, similar to that of Venezuela in 1981 but different from previous Colombian censuses, is that it is *de jure*. Censuses tend to be of two major types: *de facto* (or *de hecho*) or *de jure* (or *de derecho*). In the former type, persons are enumerated where they in fact are at the time of enumeration. In the latter type, persons are enumerated where they "usually" are. Whether a census is of one or the other type has the potential of having an enormous impact on whether a household is enumerated as female-headed or not although we know of no study at the moment that can estimate how important the difference in enumeration styles might be. But in societies such as Colombia in which a sizable number of men are often absent, at least seasonally, the household might be couple-headed in a *de jure* sense but may often be *de facto* female-headed in a realistic sense. Since we have no choice but to examine the *de jure* data, it is important to keep this in mind and to speculate that many of our estimates are in fact underestimates or are at least at the lower end of a range.

Model and Method

There are various ways to study the relative well being of mothers 15-59

who head their own households. Since we propose to do this by statistical means using census data, we must then discuss which statistical technique to use since that will influence the causal model we conceptualize. The most straightforward way to us would be to use cross tabulations since we could see directly what was going on and the number of cases involved, but this approach becomes messy after introducing more than a couple controls; and to use the data optimally we should think multivariately. Bivariate analysis is only a first step because any relationship, such as between housing quality and the likelihood of heading the household, could in reality be much less than a bivariate one if controlling for another factor, like age, helped explain the direct relationship (see Babbie, 1973). Multivariate analysis then, is the necessary second step.

One method that can handle a multivariate model is multiple regression since this enables us to use multiple indicators of well-being and to do this while also controlling for other factors. We can then hypothesize that there is a relationship between headship and well-being net of such factors as age and number of children. The problem is that ordinary multiple regression (OLS) requires that the data are in a certain form, one of the more serious requirements being that the dependent variable, in this case headship, be interval-level. But headship is a dichotomous variable. Ordinary least squares regression would thus produce heteroskedasticity in the error term. While there are several ways to get around this, such as by using weighted least squares, this study uses logit regression. Logit regression is designed to estimate the effects of categorical (or interval-level) independent variables on a dichotomous dependent variable in a multiple-variable context (see Demaris, 1992). A log-linear technique, logit regression retains the idea that causal modelling is important while enabling us to use categorical dependent variables. Although coefficients are log odds, they are still normally distributed and they still must be about twice their standard error to be considered significant at $p < .05$.

Using logit regression then, we can hypothesize that there is

differential well-being among mothers who head and do not head, controlling for urban/rural residential and demographic factors. We consider regional factors as well because so many features of Colombian society seem to differ by region, including family characteristics (Angulo-Novoa, 1980). We consider urban/rural residence because it is much more common for women to head households in urban areas than in rural ones, perhaps because of the nature of the economy in the two areas. Finally, we consider demographic factors because demographic characteristics such as age and number of children have been found to have such a strong effect on headship (e.g. De Vos and Richter, 1988; Sweet, 1972).

In statistical parlance, the model is:

$$H = a_i W_i + b_j R_j + c_k D_k$$

where H = Headship (0=not head; 1=head);
 a, b, c = estimated coefficients corresponding to W, R, D respectively;
 W = Material well-being (education, housing density, comparative housing scale, kitchen);
 R = Urban/rural residence;
 D = Demographic factors (age, number of living children)

The model pertains to the entire country and to individual regions.

Variables

Headship

We consider as "head" in this study all mothers 15-59 years of age enumerated by the census as "head" who were not determined to be living with a spouse/mate, even on a *de jure* basis. "Non-heads" (even co-heads) are all other mothers 15-59 years of age. Using this definition, 13 percent of the mothers were heads while 87 percent were not (Table 1). This headship level appeared similar in all five regions, the range merely being from 11.9 percent in the Pacific region to 14.1 percent in Bogota. How important factors like urban/rural residence might be in explaining this small range is an obvious question, especially since Bogota is the nation's principal city.

Well-Being

As mentioned before, we find indicators like income and occupation inadequate for measuring well-being, especially the well-being of women. We use two other types of information, educational attainment and housing characteristics. Women in Colombia tend to acquire education, although perhaps not as much as men, and they also have to live in housing.

Education. The Colombian census of 1985 made it relatively easy to measure educational attainment because it asked everyone 5 years old and older what the highest level was of education attained: none, primary, secondary or higher still. It also asked how many years of schooling were completed at this level, and it asked whether someone was literate or not. This information enabled us to create a five-category educational attainment variable: The first category is comprised of people who have no school and are illiterate (cannot read or write). The second category is of people who are literate but did not complete primary school (5 years of basic education). The third category is of people who did finish primary school but went no farther. The fourth category is of people who went beyond primary school to middle school but who did not finish secondary school. The fifth category is of people who did (at least) finish secondary school. The resulting distribution of the population using the scheme looked reasonable (see Table 1). The idea that we were constructing a good indicator was enhanced by the correlation between this variable and other indicators of well-being, as discussed more below (also see Table A-1).

Housing. We use two 'standardized' measures of housing characteristics and one that is country-specific but nonetheless appears to be a good indicator of well-being. First, the Colombian 1985 census contains information about the physical characteristics of housing units following the recommendations put forth by the United Nations in its *Principles and Recommendations for Population and Housing Censuses* (1980). We identified six of these that could be used to form a scale that is comparative throughout

Latin America (and useful for our larger study of changing households in Latin America (see Arias and DeVos, 1993)):

1. Wall material
2. Floor material
3. Electricity
4. Sewerage
5. Water source
6. Water access

We feel okay about using the comparative scale because most countries appear fairly consistent in valuing materials such as masonry over materials such as adobe. We also estimated the reliability of the scale for these data by computing Cronbach's coefficient alpha and found the raw scale to be .83.¹

In its original form the scale ranged from 0 to 10. The numbers are somewhat arbitrary in that they simply function as ordered indicators of the quality of housing; the meaning of a full 10 or a nothing 0 is fairly straightforward but the other scores are not. We found that a major reason for having a high but not highest score was due to having wall material other than masonry and that the next big change was when housing had dirt floors. (Could these factors be associated with rural as opposed to urban housing? See Table A-1.) But we emphasize that a score is a mixture of items, and a less-than-perfect score could be due to a number of different causes. The loss of specific information is the price we must pay for making a summary score.

About half of the Colombian population (54.7%) had a value of 10, while the remaining half was spread across the remaining points, suggesting four major divisions. We thus tried collapsing the scale into four categories and found that the correlation between the longer and shorter scales was almost perfect (Spearman's r and Pearson's r) and the correlation (Spearman's) between either of them and other well-being variables was virtually the same (Table A-1). Also comforting was the fact that our group of mothers had approximately the same distribution as the entire population 15-59 years of age (see Table 1).

A second measure of housing related to well-being is density or the number of people per room. This potentially continuous variable was collapsed into four categories: 0-1.49, 1.5-2.49, 2.5-3.49, 5.5-14. A third, country-

specific, measure that we also use as it appears to help indicate well-being is whether people have a separate room designated as a kitchen and if so, whether they share it with others. This is a four-category variable ranging from having a separate room for a kitchen to using a room without a sink.

So how do educational attainment and the housing measures relate? (See Table A-1.) The correlation between the housing scale and education is moderate but the other correlations, while statistically significant, are only moderately-low to low. The critic might find such correlation insufficient; but we really do not know what may be the better predictor of headship--if anything is. Our reasoning also is that the measures seem to constitute the best ones we have, especially since we would like to be able to replicate the study for other time periods and other countries (and thus need to use comparative measures). We do not pretend that they are anywhere as good as we would like.

Urban/Rural

Colombia is going through a process of urbanization: Close to two-thirds (64%) of the population was rural in 1951, compared with less than a third in 1985 (30%). But a simple urban/rural dichotomy is insufficient because some 'urban' centers are really quite small, though administrative centers, while others have over a million inhabitants.² Yet the census merely differentiated between heads of *municipios* (similar to our townships) irrespective of size, other towns (sometimes big), and rural areas. In our opinion, this is not satisfactory. We constructed our own seven-category variable for urban residence³ that was collapsed into a three-category variable without losing much predictive power. The variable distinguishes between urban areas with populations of 20,000 or more, semi-urban areas that are towns but have less than 20,000 people and rural areas as defined by the census. Roughly two-thirds of the sample population was urban according to this scheme, while 19 percent were semi-urban and 14 percent were rural (Table 1).

Demographic Factors

In this study, we limit the age range to 15 to 59 and categorize it: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-59. Grouping age is known to increase the accuracy of an age variable while there is insufficient difference among 45-59 year olds to warrant separate categorization. This last age group constitutes about a quarter of our sample however, while 15-19 year olds account for less than 4 percent (Table 1). While we initially viewed **Number of Children** as a possibly continuous variable it made sense for predictive purposes to distinguish between four categories: 1, 2, 3-6, 7+. To be expected, 42 percent of our sample of mothers had 3-6 children, but only 13.6 percent had more (Table 1).

Region

Appreciating the country's diversity, anthropologist Virginia Gutierrez de Pineda (1968) in the mid 1960s developed four ideal types of family based on "climate, main source of economy, ethnic dominance, and type of marriage" (Angulo-Novoa, 1980). One type could be called "Andean" (or "American") in which the father is in full control, financially and otherwise. A second type could be called "neo-Hispanic" (or "Santandereano") which is also quite patriarchal, but is also more patrilineal in nature. Ideas about male honor and *machismo* are important in this type. A third type might be called "mountain" (or "Antioqueno") and tends to be matriarchal. Eldest daughters in particular seem to be in a valued position. A fourth type could be called "river" (or "Negro") and is also matriarchal but often because of the male's absence or tenuousness. Unfortunately, how this typology specifically might be translated into a regionalization of the country was left vague. Rather, "...the four 'ideal types' are nothing but a systematic effort to classify a highly complex phenomenon, and none of these cultural types can be found in its pure form. ..." (Angulo-Novoa, 1980:86-87).

A regionalization scheme that uses politico-administrative subdivisions and appears to have been developed by the census bureau although we have been

unable to find any discussion of why, divides the country into six regions: Pacific, Atlantic, Eastern Highlands, Central Highlands, National Capitol, and Other.⁴ See Figure 1. This division has a number of advantages. First, it follows geography. Second, it considers the area around Bogota separately since Bogota is, after all, the nation's capitol. Third, the population is rather evenly distributed among the regions.

The problem for us is that this regionalization scheme did not seem to be developed with ethnicity in mind, and is not a particularly good way to organize the areas in terms of such demographic factors as the proportion of women 20-24 years of age who have a child but who remain single (as opposed to married, in a consensual union, separated/divorced or widowed). While some departments follow the general regional figure others do not and seem better placed in a neighboring region. Also, although there are plenty of reasons to divide the "highlands" into two separate regions (excluding Bogota) it seemed more useful for our purposes to combine them, especially once Norte de Santander and Santander are taken out of the "Eastern Highlands" region and placed in the "Atlantic" region and since the division was not made to accord with a particular cultural boundary. Thus we constructed our own regionalization scheme that had only 5 instead of 6 categories: the Pacific, Atlantic, Highlands, Bogota, and National Territories.⁵

The population distribution and the proportion of women aged 20-24 who had at least one child but remained single according to the two schemes (in percentages) are as follows:

	Distribution		Single Women with Child	
	Census scheme	Our scheme	Census scheme	Our scheme
Pacific	17.5%	7.0%	18.4%	23.4%
Atlantic	19.8%	28.4%	7.2%	8.6%
Highlands (Eastern)	19.3%	47.6%	13.6%	15.4%
Highlands (Central)	26.3%		15.5%	
Bogota	15.1%	15.1%	15.5%	15.5%
Nat. Territories	2.0%	2.0%	11.3%	11.4%

Thus while we are quite ready to acknowledge problems with our scheme, such as continued ethnic heterogeneity, the population distribution or placing Santander and Norte de Santander in the Atlantic region, it still seems an improvement over the census scheme. It is just that the country is so diverse that dividing it into five or six regions will not do the diversity justice, yet examining it in terms of the more than 20 departments/territories would be unreasonable for us also. Thus the scheme is meant to make the best of what we have, not to be ideal in any sense of the imagination.

Bivariate Results - The First Step

Well-Being

Education was negatively associated with headship in general although only weakly. Cramer's V for the whole country was .06 (Table 2). This could be partly due to the fact that, although mothers with no education had the highest proportion of heads (17.2%), those with less than a primary school education had a similar proportion to those who had completed primary school (13.6% vs. 13.0%), and those with a middle or some secondary schooling actually had a lower proportion heading than did those with at least a secondary school education (10.5% vs. 11.2%). See Table 2. One has to wonder what the relationship might be once factors like age were controlled.

The relationship between education and headship was basically the same in all regions as it was for the national sample, with Cramer's V only ranging from .058 in the Pacific region to .086 in the National Territories. In all cases, the rates decreased substantially from no education to less than primary and then continued to decrease more gradually up to the last category where it increases slightly again. Bogota actually had the largest contrast-- 22.9 percent of the mothers with no education being heads contrasted with 12.2 percent of the mothers with at least a secondary school education. And although mothers with less than a primary school education had more headship

(16.8 percent) than primary school graduates (14.9 percent), mothers with a "middle" level of education still had a lower proportion of heads (11.9 percent) than mothers with at least a secondary school education (12.2 percent). See Table 2. Unfortunately, a majority of the sample is in these two categories (Table 1). If we take education as a measure of wellbeing, we may say that on average in Colombia mothers who are heads seem somewhat worse off than mothers who are not heads, at least before controlling for other factors.

In contrast, our Housing Quality Scale appeared positively associated with headship although the relationship appears even weaker than that between education and headship. For the whole country, Cramer's V was only .03 (vs. .06 for education). Headship among mothers at the low end of the scale was 11.1 percent compared to 13.6 among mothers at the high end of the scale. Again, the low Cramer's V could be partly due to the fact that mothers with a "medium-high" level of housing quality had a larger proportion of heads than did mothers with a "high" level of housing quality.

A majority of the heads in our sample lived in adequate housing, about 73 percent (scores of High and Medium-high), whereas 70 percent of mothers who were not heads scored in these categories. The figures for headship decreased with quality of housing so that only about 17 percent of all heads lived in housing at the low end of the scale. In contrast, about 20 percent of the mothers who were not heads scored Low.

The same basic relationship appeared for most regions. The major exception was Bogota in which Cramer's V was only .0096 (with a p value of .06). Since almost everyone in Bogota lived in "high" ("adequate") quality housing, there could be no relationship to speak of. Another, more minor, exception was the Pacific region. Rather than increasing between Medium and Medium-high as in the national sample, the proportion heading their own household decreased. The Low and High categories thus had very similar rates and Cramer's V was only .019.

Density (number of persons per room) showed a stronger pattern and

Cramer's V was accordingly larger although still on the weak side--.086. And interestingly, headship decreased with an increase in density. Among the less dense households (containing 37% of our sample) 17 percent of the mothers were heads. Among the more dense households, the headship rate was less than 10 percent. This negative relationship was basically the same for all the regions. See Table 2. In her multivariate analysis, Roosta (1993) also found that female headed households in Bolivia in 1976 tended to be on average smaller than male headed households. The absence of a spouse/mate could explain some of this. But if density is an indicator of well-being in living arrangements then we find a positive relationship between well-being and headship.

Regarding the country-specific variable about a kitchen, headship appeared to increase for housing units without a room designated solely as a kitchen, especially if it did not have a sink. In ordinal terms, the categories with the least headship were if people had a room designated as a kitchen or used a patio/hallway to cook, while the category with the most headship was (mainly) use of another room without a sink. Cramer's V, while still a weak .04, was stronger than that for the Housing Quality Scale. And regions once again had the overall pattern if we consider the response of "patio/hallway" for place to cook somewhat ambiguous. If KITCHEN then is an indicator of well-being, we find a NEGATIVE relationship between well-being and headship.

From a bivariate standpoint then, we are left with the somewhat disconcerting situation of having several supposed indicators of well-being negatively associated with headship while we have other supposed indicators of well-being positively associated, most notably density. We might well ask if we find the same results after controlling for other things, especially since we know they are interrelated (see Table A-1). Before reporting on our multivariate analysis however, we should note several other bivariate findings that may be of interest, especially since we control for them in our multivariate analysis.

Demographic Characteristics

Age was strongly related to a mother's headship. We found Cramer's V to be .25. In the age group 15-19 few mothers (1.9%) headed their own household. The proportion then increased such that by age group 35-39, 13.8 percent of mothers headed their own household and by age group 45-59 25.6 percent did (Table 2). The five Regions demonstrated the same pattern, the slight variations attributable to the differing total rates for each region (Pacific, 14%; Atlantic, 11.9%; Highlands, 13.3%; Bogota, 14.1%; and National Territories, 12.6%).

Marital status had a strong association with headship but because of the way we define headship (married-spouse-present individuals cannot be "heads") is not ultimately included in our causal model. Cramer's V was .66. Twenty five percent of single mothers were heads compared to 72.3 percent of widowed mothers. In between these extremes were separated/divorced mothers (52.8%), mothers in consensual unions but whose union mates were not present in the household (*csa* - 32.5%), and married mothers whose husbands were also reported absent (*msa* - 36.2%).

Differences between regions were largely a reflection of their total headship rates. However, some differences are worth noting. First, the Highlands had lower percentages of single and *csa* heads than the total sample, but slightly higher percentages in the remaining categories. Its total was very close to the national total. Second, Bogota had higher percentages in all categories but *msa*. Third, although the Atlantic region had the lowest overall rate, its rates for separated/divorced and widowed were quite close to the national figures. Finally, the National Territories had lower single and *csa* percentages but higher percentages in the remaining categories. All regions had quite high headship rates for the separated/divorced and widowed categories, with the variances between them apparently more a result of differences in the single and, to a lesser degree, in the *csa* and *msa* categories.

Number of Children was important, the propensity to head increasing with

fertility. Eight point eight percent of the mothers with only one child were heads while 19.5 percent with seven or more children headed a household. Cramer's V was a little over .10. The pattern does not differ much by region, although it is interesting to note that Bogota has the highest headship rates in all but the second category (2-6 children). Bogota also had a noteworthy greater headship rate for mothers with only one child.

Geographic Factors

Urban/rural residence was important. Only 9.4 percent of rural mothers headed a household compared with 13.5 percent of urban mothers. However unexpectedly, the highest level of headship was among Semi-urban residents, not those of the cities, and Cramer's V was only about .04. Given that the migration of females from rural to urban areas may be a major cause of female headship in the region (see Buvinic and Youssef, 1978), and that the most rapidly growing urban centers in Latin America are currently smaller cities, we probably should not have been too surprised at this finding. Headship by residence was similar throughout the regions although the Atlantic region, unlike all others, had a slightly lower headship rate for the semi-urban category than for the urban one (and Bogota does not count here).

Multivariate Results - The Second Step

Interpretation of bivariate results is important, but only a first step. Some of the variables, such as education and urban/rural residence are moderately correlated (Spearman's r being $-.33$). See Table A-1. Thus one wants to know whether there is a relationship even after controlling for such factors as residence, and age. Finally, one wants an estimate of the NET effect of indicators of well-being AFTER taking all the other factors into consideration; does a variable provide useful explanation even after using information on other ones?

Table 3 contains estimated contrasts between the omitted category and the

included categories for each of the indicators of well-being used in this study: the housing scale, density, education, and finally kitchen. Model 1 only includes the comparative variables. Model 2 adds to Model 1 the country-specific variable about a kitchen. We found this variable to be so important that we had to report its importance although we cannot use it in other data sets available to us. Similar to Table 2, effects are reported for the whole country (total) and for the five regions.

We found that overall the housing quality scale was not very informative because individual regions contradicted each other thus dampening any overall effect. For instance, the overall contrast between a low housing quality and a medium-high housing quality was .08. In the Pacific region it was -.29 however while in the Atlantic region it was .07 and in the Highland region .09. Multivariate results also followed the bivariate findings in that the contrast between low and medium-high housing quality was positive (a greater likelihood of headship) whilst the contrast between low and high housing quality was negative. Interestingly, this last contrast was significant before adding a control for **kitchen** (Model 1) but washed out once **kitchen** was controlled (Model 2). See Table 3. This did not happen in the Pacific region, perhaps because the housing quality scale actually made more sense there. (Could it be that the relative homogeneity of the region compared to the others made the identification of this as a separate region sensible but the others nonsensical?)

The density variable seemed a more important predictor and, consistent with the bivariate findings, was positively related to headship. The lower the density, the greater likelihood that the household was headed by a mother. This was found even after controlling for such factors as number of children, the housing quality scale, education, and the kitchen variable, variables known to be correlated with density (Table A-1). The effect of density appeared to echo or be even stronger than the national effect in all regions except Bogota. The reason for this seems unclear except that we can note the contrast between high and low density to be significant there AFTER

controlling for the kitchen variable, suggesting that some related factor could help to explain the effect (or lack thereof) in Bogota (at least).⁶

Education also seemed to be an adequate predictor of the likelihood of being a head even after controlling for such factors as the housing quality scale, urban/rural residence and number of children (see Table A-1). On the national level there seemed to be a fairly systematic decrease in the likelihood with an increase in education (Model 1 of Table 3). Further controlling for the kitchen variable decreased the magnitude of the contrasts but the same basic pattern remained (Model 2 of Table 3).

The problem is that education did not seem to be a very good predictor in the Pacific region, Bogota, or the National Territories. In the Pacific, only the contrast between no education and high school or more education seemed at all important; in Bogota there was not a simple decrease in the likelihood of heading with an increase in education; and in the National Territories the only contrast that appeared important was between no education and the equivalent of a middle school education. It may assist our interpretation to note that most of the mothers in the Pacific region and in the National Territories had either little or no education. It might be that there the important ethnic differences was between mothers who had a lot of education and everyone else. The Bogota finding is more difficult to understand because there seemed to be a fairly good distribution in education among the literate. Perhaps our understanding of what some education means does not apply well there.

Adding the kitchen variable to the equation in Model 1 of Table 3 proved important, both on the national level and in most regions although the bivariate correlations (Spearman's) between it and other factors were negligible (although statistically significant). Most problematic was how to interpret responses that put cooking in a patio or hallway instead of using a separate room designated as the household's kitchen. We were first inclined to consider it as worse than using another room in the house, even if that room did not have a sink. We found however, that people who cooked in a patio

or hall were more similar in terms of headship to those who used a separate room. Thus we found an increasingly positive contrast between people whose households had a separate room for a kitchen and people who had to use other facilities, typically a room without a sink.

The ordering of the categories was the same as the national pattern for the Pacific, Atlantic and Highlands regions. It was *not* the same for Bogota or the National Territories. In those cases the contrast between having a separate designated room and using another room without a sink was strong but the contrasts with the other categories were problematic. In terms of explanatory power, the variable seemed to be important everywhere.

DISCUSSION AND CONCLUSION

While this study hopefully makes some advances over past research by comparing women heads with other women who may be at risk of being heads, and furthermore by only considering as "head" people who were not in fact "co-heads," our findings are puzzling in finding both positive and negative effects of increased well-being on the likelihood that a mother be a household head. This puzzlement was only increased by a study of female headship by the Colombian Department of Administration and Statistics (DANE) using 1981 data (1987) because that study found a positive relationship when it came to "household comfortability" (density), a positive relationship when it came to "housing quality" (access to public services), but no relationship concerning household amenities. What, then, are we to conclude about the issue of choice vs. constraint or about the potentially deleterious family effects of "development"?

Since the main positive effect seemed to come from *density* rather than from the *housing quality scale*, the *kitchen* variable or *education* we can provisionally conclude that mothers do not become household heads out of choice. And if headship among mothers is increasing with "development" then we might conclude that this is a negative occurrence. Finally, as Roosta

(1993) suggests, the density factor could be influenced in large part by the male's absence when calculating the figure and therefore may **not** be all that good at indicating general well-being.

The study also brought home the importance of demographic factors such as age, and geographic factors such as urban/rural residence in effecting a mother's likelihood of heading a household (see also DeVos and Richter, 1988). While the bivariate analysis conducted by DANE (1987) was very valuable, one cannot help but wonder what the findings would have been if something as straightforward as the head's age or urban/rural residence had been controlled. It is clear to us that demographic and geographic factors have to be taken into account in any study interested in the relationship between well-being and the likelihood of heading a household.

The main conclusion of the study probably should be however, as if this needs repeating, that female headship is a very complex issue that cannot simply be reduced to a few basic "facts" concerning well-being. The "facts" are not all that clear. If the larger question is the effect of "development" on women, the family, or on the nature of social reproduction then we can only be more puzzled.

We can say, based on this study, that there did not seem to be a strong negative relationship between well-being and the likelihood that a mother would be a household head in Colombia in 1985. There were enough findings to suggest a negative relationship however. What the study did not do, and what could be considered a glaring weakness from some points of view, was to look at the labor force participation of mothers who did and did not head. Proper measurement of labor force participation among mothers is a complicated issue beyond the present scope of the authors' competency however, and we felt it better to do a smaller job (not all that small) well than to try to perform a bigger job more poorly. But this obviously is an area that needs addressing by future research.

Another problem that we were better at identifying than dealing with adequately was that of proper regionalization and/or including ethnicity in

our examination. We were hampered from proper specification in large part by the omission of any ethnic (or racial) identification in the Census but it should be possible to identify different regions to accord roughly with ethnic differences. Then there is the problem that areas are departmentalized for administrative/political reasons, not necessarily ethnic ones; and we had to use this departmentalization scheme as our building blocks. Perhaps instead of reducing the 30-odd departments and territories into five or six regions, it would be better to reduce them to about 10 or 12 regions. But then how does one summarize resulting information?

Finally, it would be valuable to know if the relationships found in 1985 also held in 1973 or 1995; and if they did not to address the question of "why not". After all, the 1985 data reflect a hopefully distinctive time in Colombia's history that could make the findings herein somehow inapplicable to the larger picture.

NOTES

1. We use an unstandardized scale because it is replicable and the correlation (with these data) between unstandardized and standardized scales is .99.
2. In many respects, there is as much difference sociologically-speaking between living in a large or a small city as there is between living in a city and a rural area.
3. The first category contained the largest four cities of Bogota, Medellin, Cali and Barranquilla. The first three cities are located in the Highlands but different parts of the highlands, in the departments of Bogota (Cundinamarca), Antioquia, and Valle de Cauca respectively. Baranquilla is a port city on the Atlantic sea coast. The second category contained the next 9 cities that had a population over 200,000. The third category contained 23 urban areas with a population between 70,000 and 200,000. The fourth category contained the 94 urban areas that had a population between 20,000 and 70,000. Fifth were semi-urban areas that were heads of *municipios* but had a population less than 20,000. Sixth were semi-urban areas less than 20,000, not *municipio* heads, but still considered "towns" (as opposed to rural areas) by the census. Seventh and finally were the rural areas.
4. The **Pacific** included the departments of Choco, Valle de Cauca, Cauca and Narino. The **Atlantic** included the departments of Cordoba, Sucre, Bolivar, Atlantico, Magdalena, Cesar and La Guajira. The **Eastern Highlands** included the departments of Norte de Santander, Santander, Boyaca, Cundinamarca and Meta. The **Central Highlands** included the departments of Antioquia, Caldes, Risaralda, Quindio, Tolima and Huila. The **National Capitol** was the region of Bogota D.E. **Other** included the national territories of Vichada, Guainia, Vaupes, Caqueta, Putumayo, Guaviare, Amazonas and Araucas; and the island departments of San Andres and Casanare.
5. The **Pacific** region was comprised of the departments of Choco, Cauca and Narino. The **Atlantic** region had the departments of Cordoba, Sucre, Bolivar, Atlantico, Magdalena, Cesar, La Guajira, Norte de Santander, Santander, San Andres and Casanare. The **Highlands** region included the departments of Boyaca, Cundinamarca, Valle de Cauca, Meta, Antioquia, Caldes, Risaralda, Quindio, Tolima and Huila. The **National Capitol** continued to be the region of Bogota D.E. The **National Territories** included Vichada, Guainia, Vaupes, Caqueta, Putumayo, Guaviare, Amazonas and Araucas.
6. Perhaps there is what is called in statistical parlance an *interaction* between density and the kitchen variable as the effect of density is always enhanced when the kitchen variable is controlled for.

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Table 1. Percentage Distribution of Mothers 15-59 by Selected Characteristics
-- Colombia 1985

	Total	Pacific	Atlantic	Highlands	Bogota	National T.
Head						
Yes	13.1	14.0	11.9	13.3	14.1	12.6
No	86.9	86.0	88.1	86.7	85.9	87.4
Age						
15-19	3.5	4.0	4.2	3.4	2.4	6.2
20-24	14.2	14.5	15.1	14.0	13.0	17.7
25-29	17.8	16.4	18.1	17.5	18.8	17.8
30-34	15.7	14.4	15.3	15.6	17.4	14.6
35-39	14.3	14.5	14.1	14.1	15.4	13.8
40-44	10.5	10.6	10.2	10.5	10.7	9.9
45-59	23.9	25.6	22.9	24.9	22.4	20.0
Marital Status						
Single	8.4	15.0	5.4	9.1	8.5	7.2
Cons.	19.5	18.0	26.2	16.8	16.0	28.2
CSA	2.9	3.6	4.2	2.4	1.9	3.5
Married	50.9	49.3	45.1	53.3	54.4	45.0
MSA	4.1	3.8	4.6	4.1	3.5	4.1
Sep/Div	8.4	4.6	9.2	7.9	10.6	5.9
Widowed	5.6	5.2	5.0	6.1	5.0	5.5
# Children						
1	21.9	20.5	19.3	22.4	25.7	20.8
2	22.2	20.2	19.8	22.2	27.2	19.5
3-6	42.3	45.2	44.6	41.2	40.5	43.0
7 +	13.6	14.1	16.4	14.2	6.5	16.7
Residence						
Urban	66.8	34.6	68.7	60.7	99.8	16.9
Semi-urb	19.3	34.9	21.1	21.4	0.0	52.6
Rural	14.0	30.5	10.1	17.9	0.2	30.5
Education						
None	13.7	24.7	19.3	11.9	4.9	19.0
< prim.	34.1	43.9	33.7	37.5	19.8	43.2
Primary	18.7	12.7	17.0	19.6	21.4	15.8
Middle	21.5	11.6	20.0	20.9	30.6	15.6
Higher	12.0	7.2	10.0	10.1	23.4	6.5
Housing Scale						
Low	19.8	42.2	27.1	18.2	1.1	42.0
Medium	10.0	14.6	12.7	10.5	1.9	13.9
Med.-hi.	12.7	11.7	13.3	14.7	5.9	17.6
High	57.4	31.5	46.9	56.6	91.1	26.5
Density						
Low	36.8	27.9	32.0	39.5	41.3	30.7
Med.-low	31.5	29.8	33.7	31.5	28.4	32.4
Medium	15.9	18.3	17.3	15.0	14.9	17.5
High	15.8	24.1	17.0	14.0	15.3	19.4
Kitchen						
Room-kit	84.6	89.0	71.8	88.5	92.8	82.8
Patio/ Hall	6.6	3.3	16.2	3.3	1.9	6.8
Other rocm w/sink	2.6	2.2	2.9	2.7	1.8	3.1
Other	6.2	5.5	9.1	5.5	3.5	7.3

**Table 1. Percentage Distribution of Mothers 15-59 by Selected Characteristics
-- Colombia 1985**

	Total	Pacific	Atlantic	Highlands	Bogota	National T.
Age						
15-19	3.5	4.0	4.2	3.4	2.4	6.2
20-24	14.2	14.5	15.1	14.0	13.0	17.7
25-29	17.8	16.4	18.1	17.5	18.8	17.8
30-34	15.7	14.4	15.3	15.6	17.4	14.6
35-39	14.3	14.5	14.1	14.1	15.4	13.8
40-44	10.5	10.6	10.2	10.5	10.7	9.9
45-59	23.9	25.6	22.9	24.9	22.4	20.0
Marital Status						
Single	8.4	15.0	5.4	9.1	8.5	7.2
Cons.	19.5	18.0	26.2	16.8	16.0	28.2
CSA	2.9	3.6	4.2	2.4	1.9	3.5
Married	50.9	49.3	45.1	53.3	54.4	45.0
MSA	4.1	3.8	4.6	4.1	3.5	4.1
Sep/Div	8.4	4.6	9.2	7.9	10.6	5.9
Widowed	5.6	5.2	5.0	6.1	5.0	5.5
# Children						
1	21.9	20.5	19.3	22.4	25.7	20.8
2	22.2	20.2	19.8	22.2	27.2	19.5
3-6	42.3	45.2	44.6	41.2	40.5	43.0
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Residence						
Urban	66.8	34.6	68.7	60.7	99.8	16.9
Semi-urb	19.3	34.9	21.1	21.4	0.0	52.6
Rural	14.0	30.5	10.1	17.9	0.2	30.5
Education						
None	13.7	24.7	19.3	11.9	4.9	19.0
< prim.	34.1	43.9	33.7	37.5	19.8	43.2
Primary	18.7	12.7	17.0	19.6	21.4	15.8
Middle	21.5	11.6	20.0	20.9	30.6	15.6
Higher	12.0	7.2	10.0	10.1	23.4	6.5
Housing Scale						
Low	19.8	42.2	27.1	18.2	1.1	42.0
Medium	10.0	14.6	12.7	10.5	1.9	13.9
Med.-hi.	12.7	11.7	13.3	14.7	5.9	17.6
High	57.4	31.5	46.9	56.6	91.1	26.5
Density						
Low	36.8	27.9	32.0	39.5	41.3	30.7
Med.-low	31.5	29.8	33.7	31.5	28.4	32.4
Medium	15.9	18.3	17.3	15.0	14.9	17.5
High	15.8	24.1	17.0	14.0	15.3	19.4
Kitchen						
Room-kit	84.6	89.0	71.8	88.5	92.8	82.8
Patio/ Hall	6.6	3.3	16.2	3.3	1.9	6.8
Other room w/sink	2.6	2.2	2.9	2.7	1.8	3.1
Other	6.2	5.5	9.1	5.5	3.5	7.3

Table 2. Characteristics of Female-Heads, 15-59, with 1 or more Children by Headship (%) -- Colombia 1985

	Total 13.1%	Pacific 14.0%	Atlantic 11.9%	Highlands 13.3%	Bogota 14.1%	National T. 12.6%
Age						
15-19	1.9	1.7	1.3	2.1	2.4	3.2
20-24	3.1	4.2	2.7	3.1	3.7	3.9
25-29	5.8	6.8	5.1	5.8	6.6	6.5
30-34	9.6	10.0	8.9	9.4	11.0	10.4
35-39	13.8	14.2	12.3	13.8	15.8	14.6
40-44	18.1	19.5	16.8	18.1	19.8	18.1
45-59	25.6	26.1	24.7	25.8	26.4	26.1
	(.2483) *	(.2431)	(.2532)	(.2508)	(.2359)	(.2453)
Marital Status						
Single	25.0	29.3	24.9	23.4	26.6	24.2
Cons.	0.0	0.0	0.0	0.0	0.0	0.0
CSA	32.5	37.1	31.1	31.5	37.7	32.4
Married	0.0	0.0	0.0	0.0	0.0	0.0
MSA	36.2	37.1	30.7	40.2	33.2	46.0
Sep/Div	52.8	58.8	45.9	53.3	60.1	60.5
Widowed	72.3	77.7	70.3	72.4	72.4	74.0
Unknown	26.4	27.3	24.8	27.9	22.8	26.5
	(.6593)	(.6511)	(.6326)	(.6679)	(.6847)	(.6936)
# Children						
1	8.8	9.2	7.2	8.5	11.6	7.7
2	10.2	12.3	8.9	10.1	11.7	9.3
3-6	14.7	15.9	12.9	15.1	16.0	13.6
7 +	19.5	17.2	18.1	20.2	22.5	20.0
	(.1044)	(.0840)	(.1103)	(.1166)	(.0874)	(.1233)
Residence						
Urban	13.5	14.5	12.4	13.8	14.1	13.9
Semi-urb	14.1	15.6	12.3	14.8	3.8	14.5
Rural	9.4	11.6	7.5	9.5	8.4	8.5
	(.0443)	(.0476)	(.0455)	(.0523)	(.0077)	(.0811)
Education						
None	17.2	17.3	15.1	18.2	22.9	18.1
< prim.	13.6	13.4	12.1	14.0	16.8	11.4
Primary	13.0	13.4	12.2	12.7	14.9	12.2
Middle	10.5	12.2	9.3	10.4	11.9	9.2
Higher	11.2	10.6	9.4	11.5	12.2	13.1
	(.0609)	(.0578)	(.0616)	(.0669)	(.0795)	(.0860)
Housing Scale						
Low	11.1	13.9	10.0	11.1	17.3	9.9
Medium	12.3	15.5	11.8	11.7	14.4	14.5
Med.-hi	14.1	14.1	13.0	14.6	14.2	15.7
High	13.6	13.4	12.6	13.9	14.1	13.8
	(.0319)	(.0193)	(.0368)	(.0368)	(.0096)	(.0723)
Density						
Low	16.7	20.0	16.5	16.7	16.1	18.5
Med.-low	11.7	13.6	10.8	11.6	13.0	11.2
Medium	10.6	11.1	9.3	10.7	13.1	9.5
High	9.7	9.8	7.7	10.2	11.9	8.3
	(.0856)	(.1140)	(.1045)	(.0828)	(.0484)	(.1224)
Kitchen						
Room-kit	12.7	13.5	11.5	12.7	13.7	11.9
Patio/ Hall	12.5	16.2	10.9	14.9	19.5	14.5
Other room w/sink	15.0	17.2	13.3	15.7	16.0	13.1
Other	18.1	20.2	15.6	19.7	20.7	18.1
	(.0403)	(.0482)	(.0383)	(.0490)	(.0436)	(.0506)

* In parentheses are the values of Cramer's V test of association.

Table 3. The Effect of Well-Being Indicators on Whether a Mother Heads Her Own Household (Standard Errors in Parentheses)

	Total		Pacific		Atlantic		Highlands		Bogota		Nat. Ter.	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Housing Scale												
Low	--	--	--	--	--	--	--	--	--	--	--	--
Medium	0.002 (0.02)	-0.004 (0.02)	-0.073 (0.05)	-0.058 (0.05)	0.027 (0.03)	0.009 (0.03)	-0.046 (0.03)	-0.044 (0.03)	-0.250* (0.12)	-0.152 (0.12)	0.171 (0.11)	0.192 (0.11)
Medium High	0.080* (0.02)	0.096* (0.02)	-0.295* (0.06)	-0.280* (0.06)	0.072* (0.03)	0.072* (0.03)	0.092* (0.03)	0.110* (0.03)	-0.371* (0.10)	-0.175 (0.11)	0.169 (0.10)	0.193 (0.10)
High	-0.089* (0.02)	-0.011 (0.02)	-0.554* (0.05)	-0.517* (0.05)	-0.132* (0.03)	-0.048 (0.03)	-0.093* (0.02)	-0.022 (0.02)	-0.506* (0.10)	-0.234* (0.10)	-0.183 (0.10)	-0.119 (0.11)
Density												
Low	--	--	--	--	--	--	--	--	--	--	--	--
Med. Lo.	-0.351* (0.01)	-0.368* (0.01)	-0.448* (0.04)	-0.460* (0.04)	-0.471* (0.02)	-0.502* (0.02)	-0.370* (0.02)	-0.393* (0.02)	-0.124* (0.03)	-0.130* (0.03)	-0.592* (0.08)	-0.618* (0.08)
Medium	-0.391* (0.03)	-0.438* (0.01)	-0.648* (0.05)	-0.680* (0.05)	-0.631* (0.03)	-0.703* (0.03)	-0.394 (0.02)	-0.456* (0.02)	0.014 (0.03)	-0.007 (0.03)	-0.756* (0.11)	-0.809* (0.11)
High	-0.487* (0.02)	-0.579* (0.02)	-0.824* (0.05)	-0.906* (0.05)	-0.839* (0.03)	-0.955* (0.03)	-0.427 (0.02)	-0.562* (0.02)	-0.072 (0.04)	-0.122* (0.04)	-0.943* (0.11)	-1.033* (0.11)
Education												
None	--	--	--	--	--	--	--	--	--	--	--	--
Literate	-0.153* (0.01)	-0.141* (0.01)	-0.088* (0.04)	-0.070 (0.04)	-0.146* (0.02)	-0.137* (0.02)	-0.195* (0.02)	-0.177* (0.02)	-0.118* (0.05)	-0.114* (0.05)	-0.326* (0.08)	-0.309* (0.09)
Primary	-0.210* (0.02)	-0.191* (0.02)	-0.096 (0.06)	-0.073 (0.06)	-0.195* (0.03)	-0.176* (0.03)	-0.260* (0.02)	-0.235* (0.02)	-0.195* (0.05)	-0.181* (0.05)	-0.191 (0.11)	-0.178 (0.11)
Middle school	-0.247* (0.02)	-0.216* (0.02)	0.034 (0.07)	0.061 (0.07)	-0.290* (0.03)	-0.256* (0.03)	-0.290* (0.02)	-0.250* (0.02)	-0.182* (0.05)	-0.162* (0.05)	-0.374* (0.13)	-0.355* (0.13)
Higher	-0.328* (0.02)	-0.289* (0.02)	-0.257* (0.09)	-0.223* (0.09)	-0.390* (0.04)	-0.339* (0.04)	-0.286* (0.03)	-0.236* (0.03)	-0.318* (0.05)	-0.296* (0.05)	-0.066 (0.15)	-0.019 (0.16)
Kitchen												
Separate room	--	--	--	--	--	--	--	--	--	--	--	--
Patio/hall	--	0.151* (0.02)	--	0.283* (0.09)	--	0.180* (0.03)	--	0.343* (0.04)	--	0.497* (0.07)	--	0.430* (0.13)
Other rm. w. sink	--	0.343* (0.03)	--	0.444* (0.11)	--	0.300* (0.05)	--	0.420* (0.04)	--	0.239* (0.08)	--	0.240 (0.19)
Other	--	0.751* (0.02)	--	0.772* (0.07)	--	0.760* (0.03)	--	0.849* (0.03)	--	0.666* (0.06)	--	0.752* (0.12)

Model 1 contains age, number of children, urban/rural residence, the housing scale, density and education. See Text.

Model 2 is the same as Model 1 with the addition of KITCHEN. See Text.

Appendix

Table A-1. Spearman's r Correlation Matrix

	HSCALE	DENSITY	EDUC	KIT	RES	AGE	NO. CHILD.
HSCALE	--	-.32	.47	-.22	-.55	.04	-.15
DENSITY	-.32	--	-.31	.23	.13	-.11	.19
EDUCATION	.47	-.31	--	-.16	-.33	-.23	-.32
KITCHEN	-.22	.23	-.16	--	.006	-.06	.03
RES	-.55	.13	-.33	.006	--	.007	.12
AGE	.04	-.11	-.23	-.06	.007	--	.54
NO. CHILDREN	-.15	.19	-.32	.03	.12	.54	--

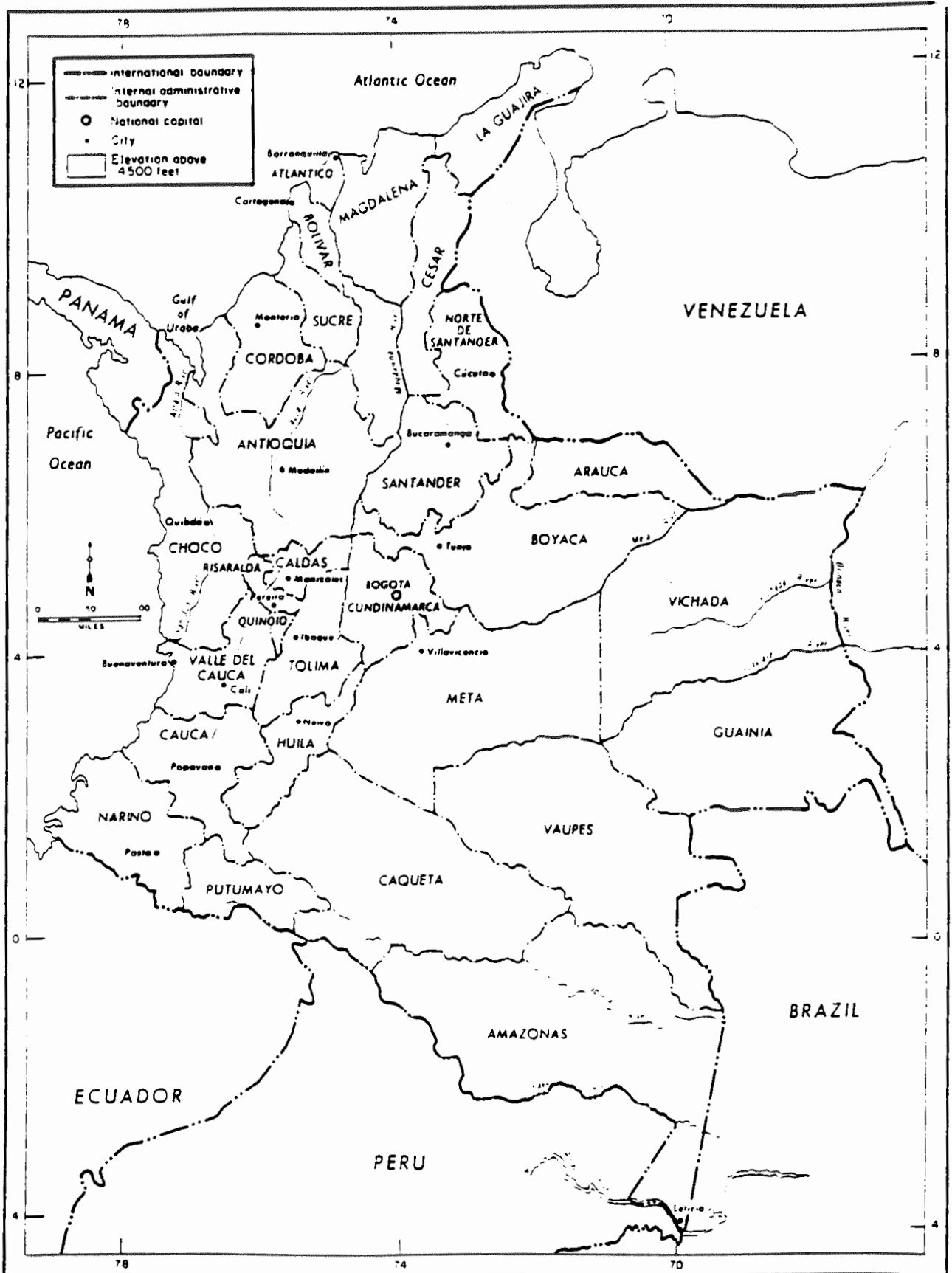


Figure 1. Colombia

Source: Howard I. Blutstein et al. COLOMBIA A Country Study

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