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EXAMINING WOMEN'S STATUS USING CORE DEMOGRAPHIC AND HEALTH SURVEYS DATA

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The collection of data on women's status has not been a primary objective of the Demographic and Health Surveys (DHS) program, nor have these data been traditionally used to examine women's status¹. Nevertheless, a large part of the data routinely collected by these surveys can be used very effectively to measure several dimensions of women's status. The use by DHS of a standard questionnaire with only minor modifications for data collection in all countries, permits the development of identical indicators and makes comparisons of women's status across countries feasible. There are few if any data sets that can compare to the spread and scope of the Demographic and Health Surveys data: since its initiation a decade ago, this program has interviewed over half a million women in 47 countries. In addition, most of these data sets are available for public use. The exploration of non-traditional uses of this vast and easily accessed data source is made particularly imperative in the prevailing stringent financial and budgetary climate which has eroded research funding.

Despite the empirical feasibility of comparing women's status across countries afforded by the Demographic and Health Surveys data, there is legitimate skepticism as to whether cross-country comparisons of women's status are meaningful. For one, there is no one accepted definition of women's

¹ This paper is concerned only with data collected using the DHS core questionnaires. Country specific questions, or questions in special modules (for example, AIDS module, female circumcision module, women's status module etc.) used in some countries, but not all, are not discussed here. Criteria used to construct the summary measure of women's status are in Appendix.

status: terms such as women's empowerment, female autonomy, gender equality, access to and control over resources and even prestige have all been used to define women's status in the literature. In addition, women's status is multi-faceted, making it difficult to measure uniquely: not only can it vary along different dimensions such as decision-making power, freedom of movement, access to education, etc., but it can also vary between the different spheres in which women function, such as the domestic and non-domestic (Mason, 1986; Whyte, 1978). This implies that women may score high on one dimension of women's status while simultaneously scoring low on another; they could also have high status in one sphere of operation but not in another. This multi-dimensionality undoubtedly confounds attempts to compare women's status across countries. The interaction of the cultural context with the cogency of different indicators of women's status also adds to the confusion, since factors that contribute to high status in one cultural setting may have no relevance or may even lower women's status in another. For example, the practice of consanguineous marriages appears to correlate positively with women's higher status in the southern states of India (Dyson and Moore, 1983), but is cited as a reflection of women's lower status in the Middle East (Moghadam, 1992).

The list of the hazards of cross-country comparisons of women's status, we believe, does not negate attempts to measure women's status. It does, however, provide some guidelines for such comparisons. Specifically, it suggests that:

- Assumptions underlying the use of any indicator of women's status should be carefully elucidated. The careful specification of assumptions will help make explicit any cultural biases in the use of the indicator, and make it easier to determine whether the indicator is irrelevant or culturally inappropriate in any country;
- Whenever possible, indicators should be defined in terms of gender differentials. Not only do gender differentials measure gender equality, a desirable outcome of high women's status, but they minimize cross-cultural ambiguity on two counts: first, an indicator of the difference in women's and men's access to resources in the same country allows the cross-country comparison to be made in terms of these *differences*, and a "large" or "small" difference is likely to mean the same across cultures; and, second, comparisons made in terms of gender differentials have the advantage that they standardize for within-country socioeconomic conditions by comparing women's situation with that of men in the same country. Such standardization is required since the level of any given indicator is generally not determined by the gender stratification system alone, but is also influenced by factors unrelated to gender, which may vary across countries. Thus, conclusions based on the position of women alone, although cogent from a human rights perspective, may be misleading as indicators of gender inequality;

- Given the multidimensional nature of women's status, as many dimensions as possible should be compared;
- Any summary measure of women's status should aggregate across multiple dimensions with each dimension being represented by multiple indicators. A justification for and assumptions underlying the use of indicators included in the summary measure should be provided.

In this paper we use the DHS data for a sub-sample of 25 countries surveyed since 1991 to fashion several different indicators of women's access to economic and social resources and opportunities. Wherever possible comparisons are made in terms of gender differences in such access. Where corresponding data on males are not available, women's situation is described in absolute rather than relative terms, using indicators that we believe to be relatively cross-culturally unambiguous. We begin by discussing which questions, among all those included in the DHS core questionnaires, are most amenable for the study of women's status. This discussion is followed by a sampling of indicators fashioned from DHS data that can be used to compare different dimensions of women's status across countries. Finally, we discuss one possible summary measure of women's status based on these and other indicators of women's status and rank 25 countries using this measure.

DATA

The Demographic and Health Surveys questionnaires typically have a household and an individual women's questionnaire. These questionnaires contain a set of core questions which are asked with minor modifications in all countries surveyed. The questions considered "core" have varied across the three phases of the DHS. Since the majority of countries compared in this paper were surveyed as part of the second phase of the DHS, this discussion is restricted to questions considered core in the second phase of the DHS².

The *household questionnaire* collects information on sex, age, education, and household headship status or relationship to the household head for all household members and visitors. A member is any person who usually lives in the household, and a visitor is a non-member who slept in the household the

² Of the 25 countries included in this paper, the ones not surveyed in DHS phase II are: Ghana, Kenya, Bangladesh, the Philippines, Turkey and Bolivia. These countries were all surveyed as part of the current (third) phase of DHS. For differences in the core questionnaires for DHS phase II and III see Macro 1994. Also note that not all questions in the core questionnaire need be asked in every country.

previous night. In addition, information is also collected on the household ownership of selected consumer goods and the household's access to toilet facilities, water and electricity. Any adult in the selected household can be the respondent for the household.

The *individual questionnaire* collects data for women in the reproductive ages 15-49. Each eligible woman in the selected households is interviewed and information is obtained on reproductive behaviour and intentions, knowledge and use of contraception, availability of family planning, breast-feeding and health, and the woman's height and weight, and on the height and weight of her children age 5 or less. In addition, data are collected on the background characteristics of each woman: her marital status, education, employment, media exposure, and if she is married or has ever lived with a man, information on her husband's education and employment.

The data on reproduction, contraception, child health and child mortality have been the main focus of data collection and dissemination activities of the DHS. These data are extensively used to provide nationally representative estimates of fertility, contraceptive prevalence and child mortality rates. The household schedule is typically used to identify eligible women for interview, and the data on the background characteristics are used to "provide information on characteristics likely to influence fertility and contraceptive behavior" (IRD\Macro 1990). By contrast, for the analysis of women's status the data on the background characteristics of women and those collected using the household questionnaire take center stage.

Mason (1995, p. 3) suggests that indicators of women's status can conceptually be divided into those that are "indicators of the means to desirable outcomes or statuses in life", and those that are "indicators of the desirable outcomes or statuses themselves". Although some indicators of women's status are likely to be both the "means" and the "outcomes", suffice it to say that the DHS data permit the development of both types of indicators. Specifically, the DHS household data on education, socioeconomic status, and household headship generate indicators of gender inequality in access to resources. Such indicators not only inform whether the desirable outcome of gender equality in access is being achieved, but are also ideal, as argued earlier, for cross-country comparisons. Changes across cohorts provide information about changes over time. Individual level information on women's fertility, contraceptive use and ability to discuss reproductive desires with husbands also provide indicators of whether "desirable outcomes or statuses" have been achieved.

On the other hand, individual level data on women's education, media exposure and employment yield indicators about the "means to desirable outcomes". A comparison of the education and employment status of husbands

and wives tells us about potential resource inequities within households. Data on time to water source for women who live in households without water on the premises, childcare options for women who are employed and have a child less than age 5, and alternative dependency ratio estimates can be used to indirectly measure women's workload. Information on age at marriage and age at first birth can tell us the extent to which women's life chances are being limited.

Other examples of the types of indicators providing insight into the different dimensions of women's status are available elsewhere (Kishor and Neitzel, 1996). In this paper we present selected illustrations of what can be learned about women's status across 25 developing countries if the DHS data are used imaginatively. These examples illustrate the potential for examining women's status using DHS data.

THE RELATIVE POVERTY STATUS OF WOMEN AND MEN

The information in the DHS on the basic amenities available to each household and the ownership of consumer durables can be used together or separately to develop alternative living standards indices. One example of a living standards index based on DHS data is the Amenities and Possessions Index (API). This index is defined as a four-category (High, Medium-High, Medium and Low) living standards index based on an individual's access to the following basic amenities: toilet facilities, drinking and non-drinking water, and electricity, and to four consumer durables: radio, television, refrigerator, and car (see appendix). An individual is assumed to have access to these basic amenities and consumer durables if the household he/she lives in has these basic amenities and consumer durables³.

An examination of the sex ratio (number of men per 100 women) of the population in the different categories of the API can provide an insight into the relative poverty or wealth status of men and women. However, since the sex ratios of the populations of different countries vary, another approach would be to compare the representation of women relative to men in each API category and in the total population of the country. Women are over-represented in a given category of the API if the sex ratio of the population in that category is less

³ In the 23 countries for which these data are compared, the distribution of population across the API index is extremely skewed. The large majority of population is concentrated in most countries in the MEDIUM category, and the HIGH and LOW categories together account for more than 10% of the population in only 9 countries. This imbalanced distribution of the population across the values of the API is reflective of the very low living standards of the majority of the populations surveyed. Definition of categories of the API is in Appendix.

than the sex ratio in the total population; similarly, women are under-represented if the sex ratio in the category is more than the total sex ratio.

In Figure 20.1, each country is represented by four bars, one for each API category. The length of the bar for any category is the absolute difference between the total sex ratio and the sex ratio of the population in that API category. All the bars representing negative values reveal under-representation of women in that category, and all the bars with positive values reveal over-representation of women in that category.

Women are over-represented in the HIGH API category in 13 of the 23 countries and this over-representation is about 5 points or more in all of these countries except Bangladesh. In addition, in all five of the Latin American and Caribbean countries, and in the Philippines and Pakistan, women are over-represented in this category by 10 or more points. Where women are under-represented, we see that under-representation exceeds 5 points in only about half of these countries. In the MEDIUM-HIGH category, women are over-represented in about half of the countries and under-represented in the remainder. However, in this category, the over- and the under-representation is no greater than 10 points in all countries except Malawi and Rwanda. In these latter two countries, women are under-represented in this category by 25 points or more.

At the other end of the poverty-wealth spectrum women are over-represented in the LOW category in about half of the countries for which data are available, with over-representation being more than 5 points in only five of the countries. Also, in five countries women are under-represented in this category by more than 5 points. The largest under-representation is in the Dominican Republic (22 points). Finally, in the MEDIUM category, we see only very small negative and positive deviations of sex ratios from the total sex ratios for most countries. The only exceptions are Brazil, Colombia, and the Dominican Republic where women are under-represented in this category by over 8 points.

This comparison yields an important insight into women's relative poverty status: women are not necessarily found concentrated at one or the other end of the poverty-wealth spectrum. Indeed, women, relative to men, are over-represented in the "rich" categories as often as they are under-represented; and they are under-represented in the "poor" categories as often as they are over-represented. Notably, the extent of over-representation of women in the HIGH category (when it takes place) is generally greater than the extent of under-representation. The opposite is true for the population in the LOW category. Further, there are distinct patterns discernible in the different regions of the world. In Latin America and the Caribbean, more men relative to women are found among the "poor" API categories, and many more women relative to men

are found among the rich API categories. This is also true of some of the Asian countries. However, in the majority of the sub-Saharan African countries, the opposite appears to be true. No systematic differences are discernible in the North African countries of Morocco and Egypt.

FEMALE HOUSEHOLD HEADSHIP: INCIDENCE AND RELATIVE DISADVANTAGE

The incidence and relative disadvantage of female-headed households has relevance to the measurement of women's status for several reasons. Women who are household heads may be more autonomous and have more control over resources by virtue of their position than women who are not household heads. However, also by virtue of their position, female heads of household, like their male counterparts, may be the sole or main providers for their own needs and the needs of their dependents. The economic status and sustainability of female-headed households, and the relative vulnerability of those who live in them, will then depend on factors such as the characteristics of the household and the household head, the composition of the household, the relative disadvantage that women face in accessing societal resources as compared to men, and the relative advantage that women may have in terms of their apparent greater potential for accessing inter-familial support and resources through informal channels (Lloyd and Gage-Brandon, 1993; Haddad, 1990; Bruce, 1989).

In the DHS, the head of the household is "...the person considered responsible for the household. This person may be appointed on the basis of age (older), sex (generally, but not necessarily, male), economic status (main provider) or some other reason. It is up to the respondent to define who is the head." (IRD/Macro 1990c, p. 32). Note that this definition of household headship has important limitations especially when studying women's status. The propensity of women to perceive themselves as the household head, or of others to report a woman as household head, especially if an adult male lives in the household, is itself likely to be a function of the status of women and will vary across cultures. In addition, this definition blurs the association of household headship with economic responsibility. Thus, while the interest in the sex of the household head derives largely from the assumption that the household head is mainly responsible for the economic and social welfare of the household, there is an unknown proportion of household heads as defined in the DHS, male and female, for whom this assumption may not hold. These definitional limitations need to be kept in mind during the discussion below.

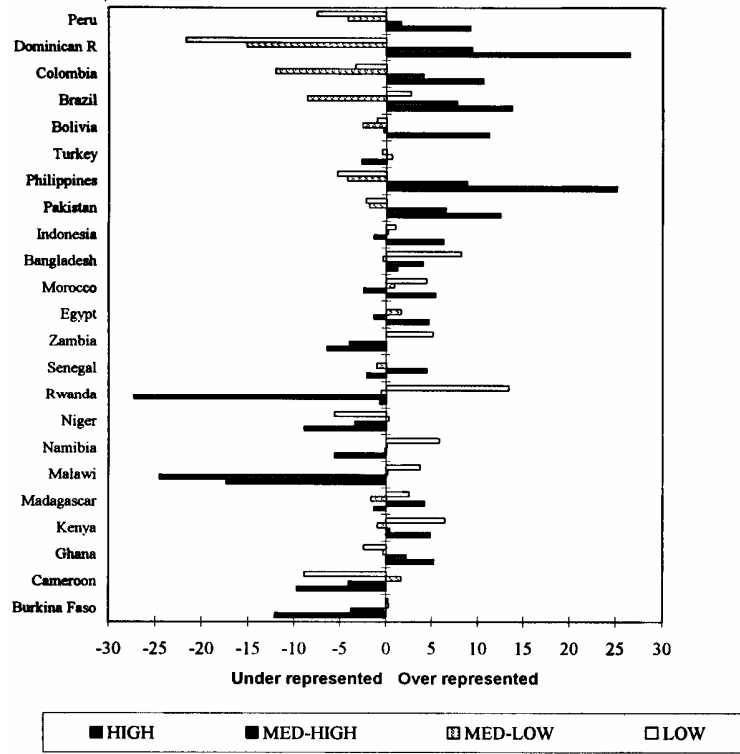


Figure 20.1. Under- and over-representation of women in each category of API

Figure 20.2 gives the percentage of households headed by women, and the percentage of the total population living in female-headed households for each country. Female-headed households account for at least one in ten households in most countries and in about half of the sub-Saharan African and Latin American countries they account for at least one in five households. Female-headed households are most common in Ghana, Kenya and Namibia, where about one-third of all households are headed by females. Notably, female-headed households in all countries account for a smaller proportion of the total population than of total households, suggesting that female-headed households tend to be smaller than male-headed households. Nonetheless, at least one in ten persons lives in a female-headed household in most countries outside Asia. In Ghana, Kenya, Malawi, Namibia, and the Dominican Republic between one-fifth and one-third of the population resides in female-headed households.

Thus, female-headed households, even on the basis of the very limited definition, are clearly an important phenomenon, especially outside of Asia. The relative position of female-headed as compared to male-headed households is examined along three different dimensions: their sex composition, the typical "type" of household (single adult, more than one adult, adults and children, and single adult with children), and their share among households classified among the "richer" API categories. While the last dimension directly measures the extent to which female-headed households are economically disadvantaged relative to male-headed households, the former two examine potential sources of disadvantage. To the extent that there is discrimination against females in accessing societal resources, a predominantly female composition of female-headed households could place such households in double jeopardy: not only are the female heads themselves disadvantaged relative to male heads in terms of access to societal resources, but a higher proportion of the members of female-headed households compared to male-headed households suffer from the same disadvantage. Among the different household types, "one adult with children" is likely to be the most vulnerable. The "one adult" type of household is also likely to be vulnerable if the adult is aged or infirm.

A comparison of the sex ratios of female-headed households reveals predominantly "female" sex ratios both in absolute terms and in comparison with male-headed households (Table 20.1). Indeed, for every male in female-headed households there are between 1.4 to 2 women. In male-headed households, by contrast, there are more men than women in the great majority of countries. Since it may be argued that the predominantly female composition of female-headed household results from such households necessarily containing at least one female -- the female household head -- sex ratios of female-headed

households were recalculated excluding the household head (column 3). However, while exclusion of the household head does make the sex ratios of female-headed households more "masculine", it does not alter the fact that the composition of female-headed households in most countries is more "female" than that of male-headed households.

Table 20.1. – Sex ratios of male- and female-headed households

Country	Sex ratio of male-headed households	Sex ratio of female-headed households	
		Including head	Excluding head
Burkina Faso	96.2	56.9	89.7
Cameroon	101.6	50.1	83.8
Ghana	125.2	50.1	92.7
Kenya	110.2	59.9	96.1
Madagascar	110.9	63.5	107.7
Malawi	111.0	54.6	93.7
Namibia	108.4	65.3	92.3
Niger	101.5	55.4	86.9
Nigeria	105.2	54.0	91.7
Rwanda	106.9	59.8	97.9
Senegal	97.0	60.6	78.9
Zambia	107.0	57.7	91.1
Egypt	109.0	64.9	117.6
Morocco	101.9	58.4	98.6
Bangladesh	105.4	59.5	101.9
Indonesia	105.1	52.4	98.7
Pakistan	110.4	73.8	108.6
Philippines	107.6	68.6	111.5
Turkey	103.7	49.4	98.0
Bolivia	105.2	54.2	99.5
Brazil	105.8	57.4	97.7
Colombia	103.0	57.5	96.3
Dominican Republic	110.6	64.6	107.2
Paraguay	108.0	66.2	113.6
Peru	105.3	63.2	101.7

A comparison of the distribution of male and female-headed households across the different types of households (Table 20.1.A, in Appendix) reveals that

male-headed households are predominantly of the "multiple adults with children" type. This category in general also accounts for the largest share of female-headed households. However, what is particularly notable is that among female-headed households the category "one adult with children" is significant in all countries, accounting for between 6% and 45% of female-headed households, but never accounting for more than 5% of male-headed households in any country. Also, in most countries a higher proportion of female than male-headed households are comprised of only one adult -- a category which could be vulnerable if such adults are old and infirm. Thus, there is much more compositional diversity among female than male-headed households, and a much larger proportion of female than male-headed households falls in the more vulnerable category of one adult living alone with children.

Finally, Figure 20.3 shows the share of "rich" households (households in the High and Medium-high API categories) among female- and male-headed households. Clearly, in the majority of countries a higher proportion of male- than female-headed households is "rich" -- the converse being that a higher proportion of female- than male-headed households is "poor". The only countries where "rich" households comprise a higher proportion of female- than male-headed households are: Burkina Faso, Senegal, Pakistan, the Philippines, and the Dominican Republic. In three of the remaining four Latin American countries male- and female-headed households do not appear to differ by economic status. Thus, in Latin America female-headed households are not necessarily more socioeconomically disadvantaged than male-headed households, but in most other areas of the world they are.

Overall the household headship data in the DHS, despite inherent limitations, provides evidence of both a significant incidence of female household headship and of the greater vulnerability of such households, especially in sub-Saharan Africa.

ACCESS TO SECONDARY EDUCATION

The DHS data on education can be used to study not only women's access to education but also gender differences in education in terms of both number of years of education and level of education. The level of education is a standardized variable with the categories: no education, primary, secondary and higher⁴. While "no education" corresponds to zero years of formal education in all countries, the number of years needed to complete primary, secondary and higher levels of education varies across countries.

⁴ In countries where the education levels vary from these standardized levels, the country specific levels are available in the data sets as "country specific" variables.

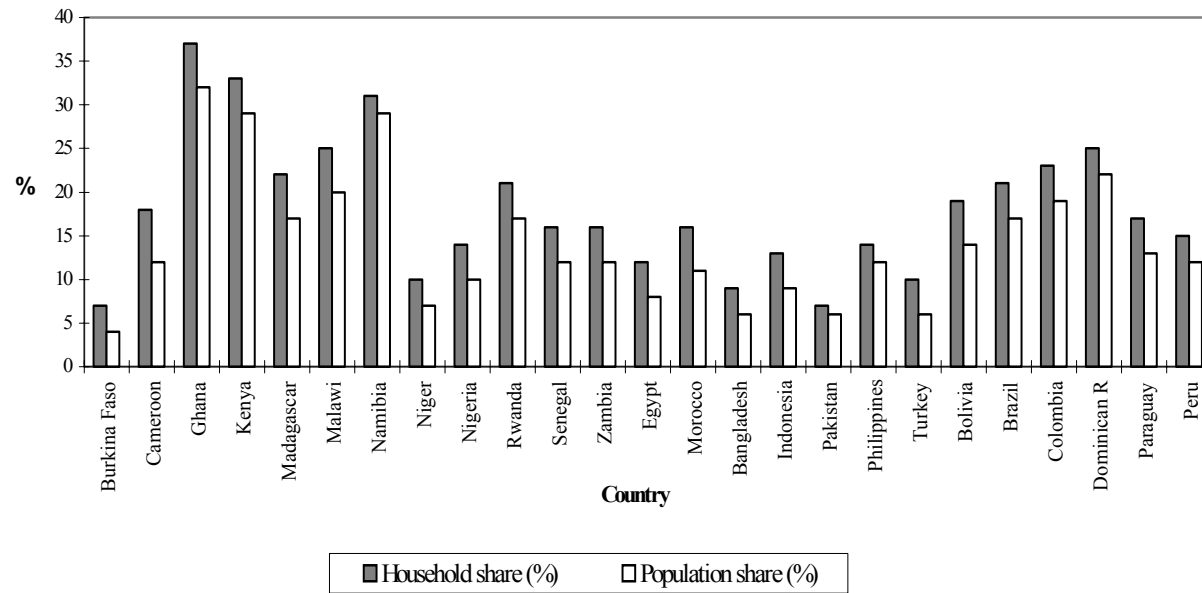


Figure 20.2. Percent share of female-headed households among all households and among the total population

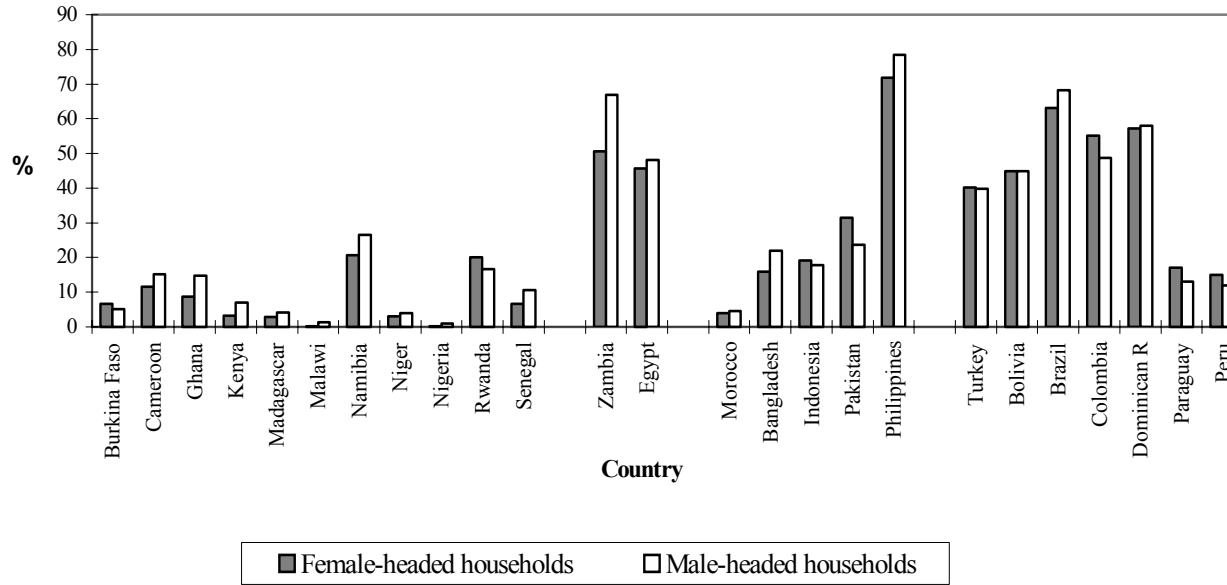


Figure 20.3. Share of households with High or Medium-High API value among female- and male-headed households

Overall, there is little evidence of gender equality in education among the population age 15 and over, irrespective of the level of education that is examined (Table 20.2.A, in Appendix). The sex ratio of the population with no education is below 75 in 19 countries, and is below 50 in 8 countries (two women uneducated for every uneducated man). Thus, clearly the population with no education in all countries except Brazil and the Dominican Republic is predominantly female. By contrast, the population with secondary or higher education is predominantly male in all countries except Namibia and three of the Latin American and Caribbean countries.

However, the spread of education is a recent phenomenon and the value of education as a means to higher status is undoubtedly increasing over time. Thus, what is perhaps of more interest is the question: has women's access to education been increasing across cohorts, both absolutely and relative to men? Although there are several interesting patterns with regard to women's access to any education and primary education that can be discussed (Kishor and Neitzel 1996; United Nations 1995b), we focus on the absolute and the relative change in women's access to education above the primary level.

The proportion of women in each age cohort who have secondary or higher education rises in every country as we move from the oldest to the youngest cohort (Table 20.3.A, in Appendix). Clearly, access to secondary and higher education is increasing for women over time. An examination of the sex ratios by age (Table 20.4.A, in Appendix) reveals that there has been an increasing "feminization" of the population with secondary or higher education from older to younger cohorts in every country. Nonetheless, in 19 of the 25 countries the sex ratio even of the youngest age group (15-24 years) remains well above 100, implying that despite improvements, access to secondary and higher education remains highly discriminatory, with the exception of Madagascar and Namibia in sub-Saharan Africa, the Philippines in Asia, and Brazil, Colombia, and the Dominican Republic in Latin America and the Caribbean.

WOMEN'S ACCESS TO EMPLOYMENT

Data on employment is typically available in the DHS only at the individual woman's level, thereby restricting analysis to women in the reproductive ages (15-49). Since comparable data are not gathered on the men, gender differences cannot be evaluated⁵. Nonetheless, an analysis of women's

⁵ Data obtained from women on their husbands' employment are available and can be used to compare the employment of husbands and wives.

employment rates and types of employment permits an assessment of women's access to employment and associated potential for economic independence.

To elicit information on women's current employment the following question sequence is used in most countries⁶. First, women are asked: "Aside from your own housework are you currently working?" If the answer is no to this question, women are asked: "As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. Are you currently doing any of these things or any other work?" Women saying no to both these questions are considered to be not "employed". Women saying "yes" to either of these two questions are then asked whether they earn cash for this work, what their occupation is, where work is done (at home or away from home), and for whom work is done (family member, someone else, self employed). In addition, for women who are employed and have a child less than 5 years of age, information is sought on whether the respondent has the child with her when she works, and, if not, who takes care of the child. This sequence of questions permits an examination of several important aspects of women's employment with the important exception of women's control over their earnings.

Women's labor force participation rates vary across countries. Figure 20.4 reveals that the percentage of women employed ranges from a maximum of 93% in Rwanda to a minimum of 16-17% in Bangladesh and Pakistan. The rates of employment are clearly highest in sub-Saharan Africa where in eight of the 12 countries, at least one in every two women is currently employed. Further, in three countries (Rwanda, Ghana and Madagascar) three or more out of every four women work. Among the remaining countries, only in Bolivia and Peru does the proportion of women employed exceed 50%. Several cultural and structural factors, especially those associated with the practice of spouses maintaining "separate purses", underlie the high rates of labor force participation of women in sub-Saharan Africa. These factors include the continuing practice of polygyny, marital instability and the fact that husbands and wives have separate expenditure obligations towards their natal kin, children and households (Blumberg, 1989).

⁶ The definition of employment used in the DHS is very broad so as to include all forms of women's labour force participation: formal and informal work, inside and outside the home, and work for payment in cash, payment in kind, or no earnings. An employment history for the last 5 years is available in a few of the DHS countries, but data on current employment status are available in all countries.

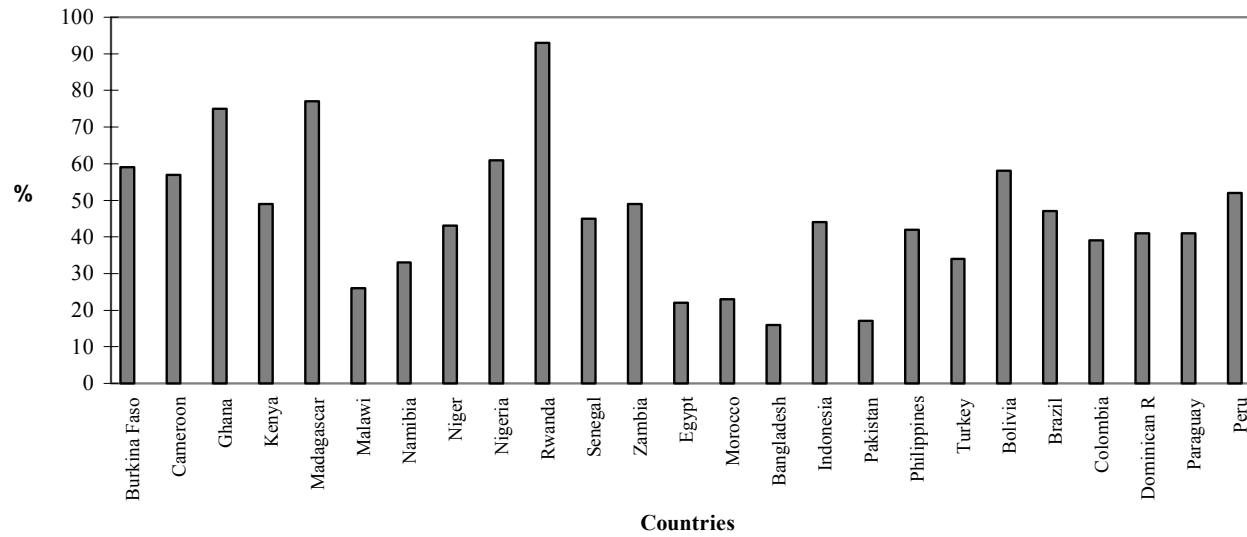


Figure 20.4. Percentage of women age 15-49 who are currently employed

For a significant proportion of women, being employed does not imply that cash is being earned. There is little research that explores the relationship of employment without cash earnings and women's status. Such research is needed, especially given the monetization of economies associated with economic development. Early research suggested that women's traditional work, which is often non-market and non-cash work, is devalued as urbanization and monetization proceeds, with consequent negative effects on women's status (Boserup, 1970). Whitehead (1994), writing about sub-Saharan Africa, faults Boserup's characterization of women being "relegated to the subsistence sector" on the grounds that the reality is far more diverse and complex. Whitehead emphasizes the conflict arising from the increasing duality in women's roles: the continued emphasis on independent production for the maintenance of their children coupled with an increasing demand by husbands for their unpaid labor on cash crop production. The increased time spent in unremunerated work does not translate into greater access to domestic resources and conflicts with the time required for fulfilling other economic obligations.

Recently, Dixon-Mueller (1993) has described unpaid work, even if it is productive and contributes to household consumption, as work unlikely to bring about change in gender relations or in fertility. More specifically, work without cash earnings has been found to be negatively associated with some aspects of women's autonomy in Egypt (Kishor, 1994). This is not surprising given that work without cash earnings eliminates, at a minimum, one of the most important single benefits of employment – direct access to and control of financial resources. Any associated benefits, such as a greater say in household decisions, may also be minimized when women's work is not seen as directly contributing to family resources. (Women working without cash earnings include those who receive no remuneration or only remuneration in kind.)

From Figure 20.5 it is clear that not all employed women work for cash. In 7 countries, namely Cameroon, Nigeria, Rwanda, Egypt, Morocco, Indonesia and Turkey, at least one in four working women are working either with no remuneration or for remuneration in kind only. In Rwanda, which has the highest employment rate of all countries, the proportion of working women working without cash earnings is 38%. In most other countries between 10% and 20% of working women do not work for cash. The only countries where this proportion becomes negligible are Brazil and Colombia.

Employment of women in modern sector occupations, such as professional, managerial, technical or clerical occupations, is most likely to be associated with higher autonomy and status. This is not only due to the greater education and training embodied in women who succeed in obtaining and keeping such jobs; gains in status and autonomy also accrue because these occupations are likely to offer the maximum opportunity for exposure to new ways of thinking and doing things and for accessing networks outside those of the kin-group.

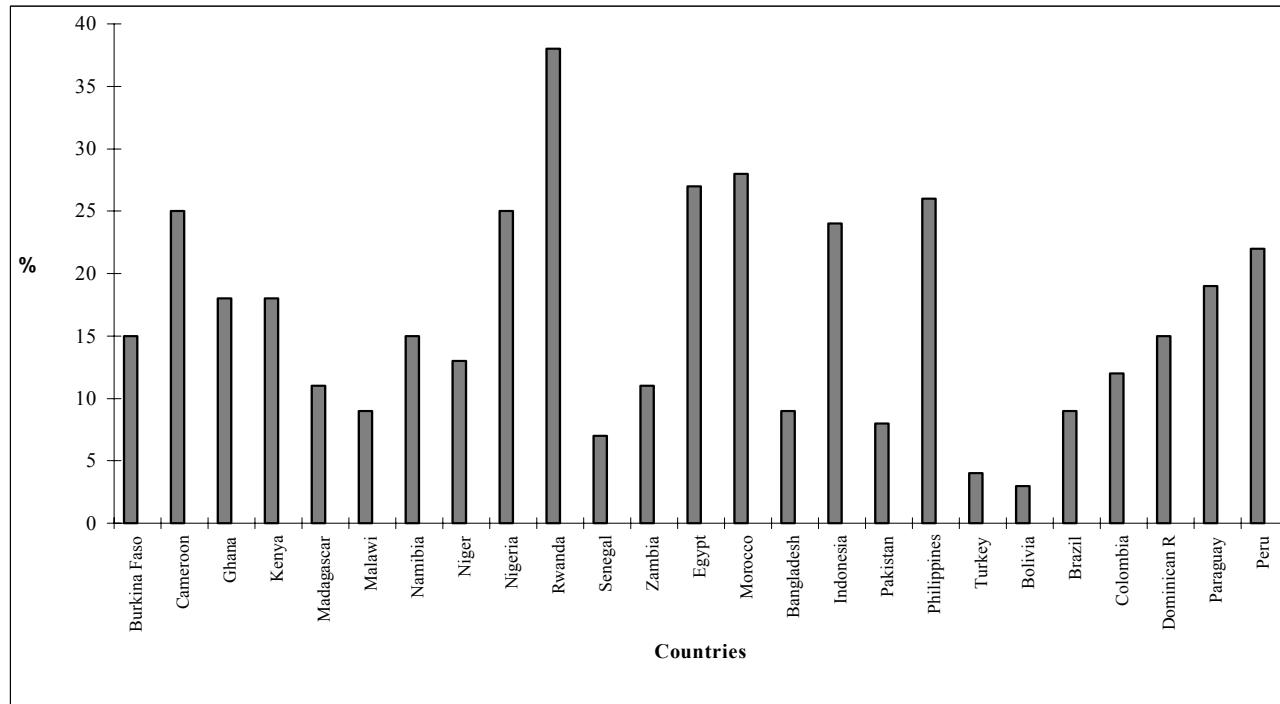


Figure 20.5. Percentage of working women who do not work for cash

An examination of the occupational distribution of women across countries suggests a remarkable similarity. In almost all countries women are concentrated in one or two of the following three occupations: agriculture, sales or manual labor. These occupations together account for at least half to two thirds of all working women (Figure 20.6). Agricultural occupations are the highest employers of women in most countries and account for as many as 93% of women in Rwanda. Sales occupations on the other hand account for more than 20% of working women in sixteen countries and employ 60% of women in Burkina Faso. Only in the Philippines and in most of the Latin American and Caribbean countries are working women more evenly distributed across occupations.

By contrast, in most countries no more than 10% of women work in the professional, technical and managerial occupations. Egypt and Peru are the only countries with a quarter or more of their working women in these occupations. Even clerical jobs, which in general require less training and education than the professional and technical ones, do not account for more than 10% of working women in any country except Namibia, Egypt, and Colombia.

Women's employment does not bear a linear relationship with education in most countries (Table 20.5.A, in Appendix). The exceptions are Paraguay, Colombia and Malawi, where labor force participation rises with education. Rwanda is also unique in that labor force participation falls with education. A curvilinear association between education and employment is found in eight countries including Ghana. Despite this cross-country inconsistency, women with education higher than the secondary level are the ones most likely to be employed. In Namibia, Zambia, Egypt, Morocco, Turkey, Brazil, the Dominican Republic and Paraguay, women with "higher" education are about twice as likely to be working than those with no or primary education. Overall labor force participation among those with higher education ranges from 25% in Bangladesh to over 90% in Zambia. In at least half of the countries secondary education is not associated with high labor force participation.

The percentage of women working also does not vary consistently across countries by socio-economic status. Specifically, as the API value falls from "HIGH" to "LOW", the percentage employed increases more or less consistently in four countries (Cameroon, Ghana, Madagascar and Nigeria), falls in three countries (Namibia, Brazil and Paraguay), and does not vary unidirectionally in the remaining countries (Table 20.6.A, in Appendix). Notably, however, the percentage of working women who work without earnings rises more or less steadily as the API falls in almost all countries. This suggests that although women belonging to poor households are not necessarily the ones most likely to be working in every country, poor women are most likely to be the ones working without cash among those who work in every country.

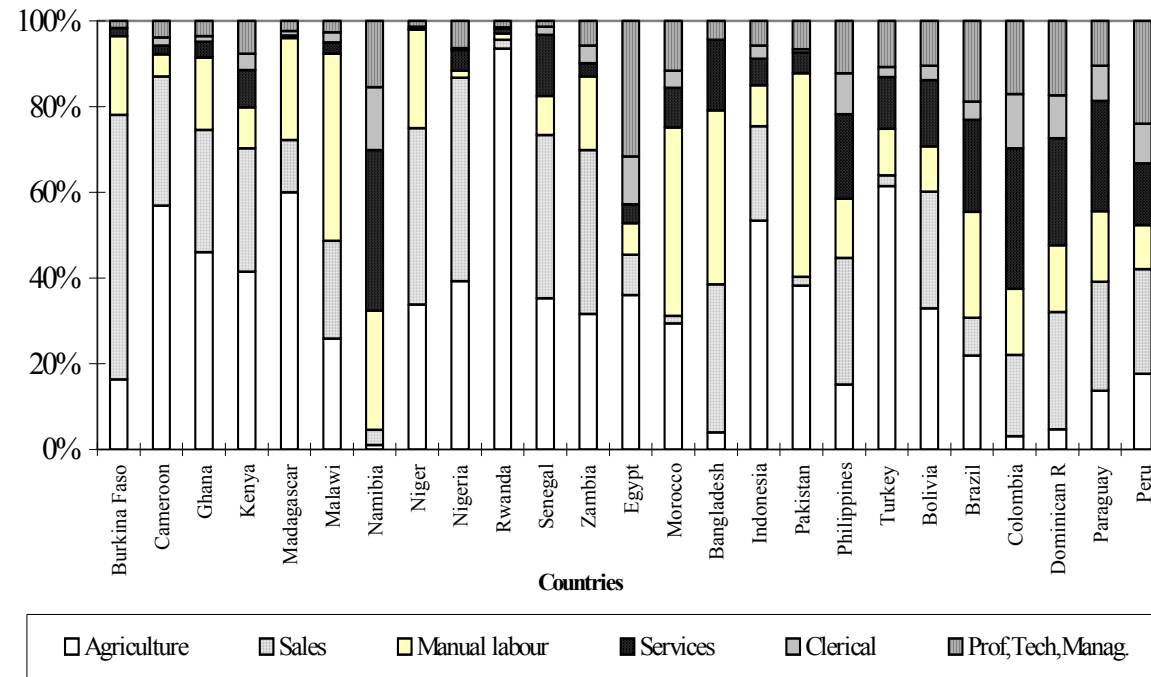


Figure 20.6. Occupational distribution of all employed women

In all of sub-Saharan Africa, except in Niger and Malawi, women with a child less than 5 years of age have a higher labor force participation rate than women who do not have a child less than 5 years of age (Figure 20.7). Further, in at least half of these countries, the percentage point difference in employment between those with and without a child less than 5 years is at least 10 points.

This pattern is the opposite of the one found in most countries of North Africa, Asia, and Latin America and the Caribbean, where women with a young child are much less likely than those with no young child to be in the labor force. The suggested positive association of labor force participation and childbearing in sub-Saharan Africa can in part be explained by the cultural importance of women's economic contributions for the maintenance of their children (Whitehead, 1994; Blumberg, 1989). Where economic dependence of women and children on the male head of the household has been culturally more acceptable and economically sustainable, women have traditionally withdrawn from the labor force at marriage or childbirth to concentrate their energies on what Papanek (1989) terms "family status production work".

INDIRECT MEASURES OF WOMEN'S WORKLOAD

Traditionally, women are responsible for household tasks such as feeding, cleaning, looking after children, and providing care for the sick and the elderly. If, in addition, women work outside the home their workload is likely to be doubled or more, unless they are able to shift onto others some of their domestic duties. Women who work outside the home and have a child with them when they work is an example of the double burden that women bear.

The proportion of working women with a young child who work away from home ranges from 28% in Bangladesh to 92% in Egypt and Rwanda. Further, in more than half of the countries considered two thirds or more of the women who work away from home and have a young child say that least sometimes they have their child with them when they work (Kishor and Neitzel 1996); and in all but seven countries, close to one third of these women always have the child with them when they work (Table 20.7.A, in Appendix).

Scarcity of water is also likely to increase women's workload. If women have to fetch water, their workload is directly increased. Additionally, the time spent fetching water will compete with the time a woman needs to complete her other domestic tasks, including childcare, which she is unlikely to be able to shift onto others (Desai and Jain, 1994).

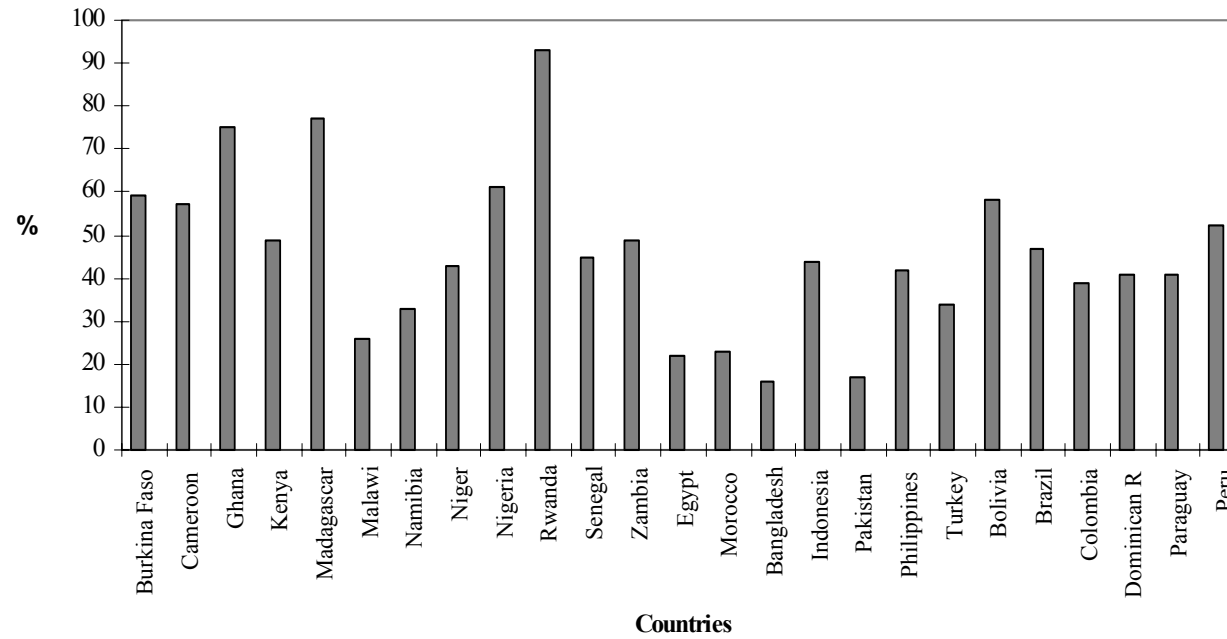


Figure 20.7. Women's labour force employment by whether they have a child age 5 or less living with them

While the DHS has data on whether there is water available on the residential premises, and if not, the time required to fetch water, these data do not inform us about who in the household actually fetches water. The part children play in assisting in domestic tasks, including the fetching of water, is widely recognized (Adepoju, 1994; Opong, 1987; World Bank 1989). Consequently, it may well be that water fetching is done as much by children as by the women themselves. Further, the amount of time needed for fetching water will depend not only on the distance from the water source, but also on the amount of water needed, and the time spent at the water source. There is no information in the DHS that would allow us to separate out these different components of the time spent on fetching water.

The shortcomings of the data imply that we cannot use the DHS data on time spent fetching water as a *direct* measure of women's workload. Nonetheless, we believe that these data are meaningful as an indirect indicator of women's workload on three counts. First, water is so essential to the efficient completion of household chores that its scarcity itself is likely to increase women's workload. The time taken to fetch water in this context is a measure of this scarcity. Second, ensuring that water is available for household drinking and chores is part of women's domestic responsibilities; even if children are assisting women the fetching of water is an additional responsibility for women. Finally, if children spend time fetching water, they are less available to help out with other tasks which would help reduce women's workload.

A large proportion of women aged 15 or over live in households without household (non-drinking) water on the premises (Table 20.7.A, in Appendix). In nine of the twelve sub-Saharan African countries, and in Bangladesh and Indonesia, at least 80% of women live in households that need to fetch their water from outside their residential premises. In fact, in Bangladesh, Rwanda and Malawi almost all women do not have water available on their property. Egypt, Turkey, Brazil, Colombia, and Peru are the only countries where less than one third of women live in such households.

In addition, in most of the sub-Saharan African countries at least half of the women living in households with no water on the premises need more than 15 minutes to get to and from the water source. In all of the remaining countries, between 56% and 92% of women who live in households without water on the premises need 15 minutes or less to fetch the water.

Thus, even though the data do not tell us definitively who has to fetch the water, they do suggest that in several countries the fetching of water must add greatly, directly or indirectly, to women's workloads. This is most true for women in sub-Saharan Africa where a consistently high proportion of women live in households without water on the premises and the amount of time needed for fetching water is relatively high.

COMPARING THE EDUCATION OF HUSBANDS AND WIVES

Wives reports about their current husbands allow the comparison of characteristics of husbands and wives. This analysis is restricted to currently married women. Most wives have either less or the same numbers of years of education as their husbands in almost all countries (Table 20.8.A, in Appendix). Of the 25 countries, there are 16 where wives are most likely to have less education than their husbands; and another 7 where they are most likely to have the same amount of education. Only in Brazil and the Philippines are women most likely to have more education than their husbands and least likely to have less education than their husbands. Notably, the proportion of couples where the wife has more education than the husband is about one-third or more in most Latin American and Caribbean countries, the Philippines, Namibia, and Madagascar.

However, we know that in almost all countries more males than females are educated, and that the average number of years of education is higher among males than females (World Bank, 1990). Also, the "demand" for an educated wife is likely to differ by the education level of the husband. Consequently, we should expect that husband-wife educational differences will vary by the education level of the husband.

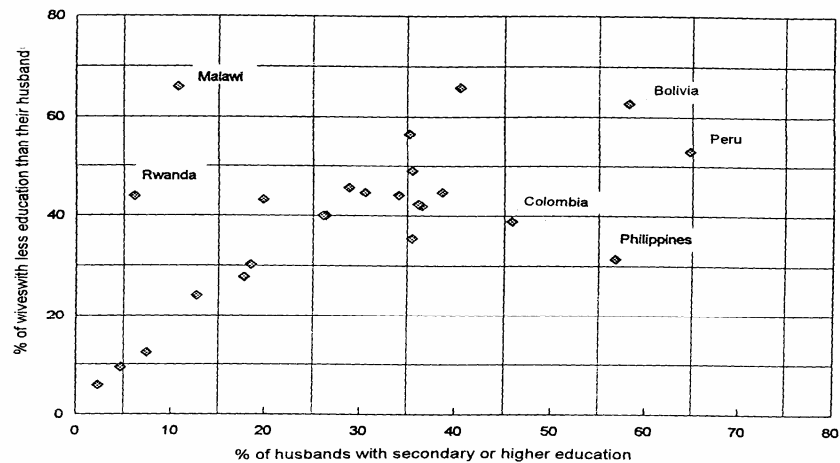
In most countries, the majority of women married to men with no education also have no education. Further, in 21 of the 25 countries, wives are least likely to have more education than their husbands if their husbands have secondary or higher education than if they have primary or no education. Indeed, a wife who has a husband with secondary or higher education is 1.1 to 1.5 times as likely in most countries (and almost 2 times as likely in Turkey, the Philippines, Colombia, Brazil, the Dominican Republic and Paraguay) to have lower education than a wife whose husband has only primary education. Clearly, women's disadvantage in education is greater at higher levels of husbands' education. Further, by using the percentage of husbands who have secondary or higher education as a proxy for the overall level of education in a country, we can examine whether the share of wives who have lower education than their husband increases or decreases as the level of education increases. Accordingly, Figure 20.8 plots the overall percentage of wives with lower education than their husbands against the percentage of husbands who have secondary or higher education, with each data point representing one country.

The regression equation (Figure 20.8) represents an inverted U, with the turning point at about $x=50$ percent of husbands with secondary or higher education. Thus, among countries with a low share ($<50\%$) of husbands with secondary or higher education, an increase in this share is associated with an increase in the proportion of wives who have less education than their husbands; however, once the 50% threshold is crossed, the percentage of wives with lower education is likely to fall. Thus, cross-sectional evidence suggests that not only does the education of wives lag that of husbands as educational opportunities first expand, but the probability that a wife will

have less education than her husband actually *increases* with continuing educational expansion, before it begins to decline.

DOUBLE EMPOWERMENT

A deeper understanding of women's status can be gained by combining two indicators together. For example, it has been noted above that large numbers of women, especially in several sub-Saharan African countries, are employed and a large proportion are working for cash. Employed women earning cash are likely to be "doubly empowered" if they are also educated. Information on employment can be combined with alternative educational levels to examine what proportion of women simultaneously score high on both indicators of status -- employment and education.



Excluding Malawi and Rwanda as outliers, the regression that best fits the data (with 20 degrees of freedom) is the estimated quadratic equation:

$$y = 1.93x - 0.02x^2 + 2.05 \quad R^2 = 0.73$$

SE: (.36) (0.01)

Figure 20.8. Percentage of wives with less education than their husbands by percent of husbands who have secondary or higher education

Transformational effects of employment and education are most likely when women have at least secondary education and are employed in the modern sector. However, few women in the countries considered simultaneously satisfy both these criteria (Table 20.9.A, in Appendix). Among all of the sub-Saharan African, North African and Asian countries included, other than the Philippines and Egypt, less than 5% of all women have completed secondary education and are currently employed in a professional, technical, managerial or clerical occupation. In the Latin American and Caribbean countries, the Philippines and Egypt, the proportion satisfying these criteria is only a little higher, reaching 14% in Peru.

Relaxing the education requirement to include women who have at least completed primary education, and relaxing the employment criterion to include not only work in modern occupations but also sales and skilled and unskilled manual labor (mixed occupations), the proportion of women who qualify increases substantially, ranging from 1.1% in Niger to a maximum of only 30.5% in Peru.

Finally, the minimal requirement that women have some education and work for cash, is the only one that nets at least one-third of women in about half of the countries—five in sub-Saharan Africa, none in North Africa, one in Asia and all of the six Latin American and Caribbean countries. Even so, in only one country, Madagascar, do more than half of all women have some education and work for cash.

Similarly, acknowledgement of intra-household inequalities in control over and access to household resources and decision making leads us directly to the question of the different sources of bargaining power within marriage (Hartmann, 1981; Bruce, 1989). Sources of bargaining power identified in the literature include intra-spousal differences in earnings and education (Safa, 1992a 1992b, Sen, 1989, 1990; Kerber, 1994). To the extent that wives are able to bring not only equality in education but also earnings to intra-household negotiations, we believe them to be better off (indeed to be doubly empowered) than wives who bring only one or the other.

Figure 20.9 shows the percentage of wives who have the same or higher education than their husbands and who are currently employed for cash. Burkina Faso has the highest share of wives (46%) who qualify as doubly empowered even though this equality of education stems largely from both husband and wife having no education. Madagascar, on the other hand, has 43% of currently married women with at least as much education as their husbands and working for cash. However, in Madagascar, unlike Burkina Faso, two out of three of these wives must have at least primary education. In addition to Madagascar and Burkina Faso, there are five other sub-Saharan African countries (Ghana,

Niger, Nigeria, Rwanda, and Senegal) and one Latin American country (Brazil) where at least one-third of wives qualify as "doubly empowered".

At the other extreme, in Egypt, Morocco, Bangladesh, Pakistan, and Malawi (the only country in sub-Saharan Africa), 10% or less of currently married women have as much or more education than their husbands and work for cash. All other countries, including all countries in Latin America and the Caribbean except Brazil, have between 17% and 30% of all wives who qualify as "doubly empowered".

DEVELOPING A SUMMARY INDICATOR OF WOMEN'S STATUS

Indicators that reflect the separate dimensions of women's status each tell only a partial story about the level of women's status. For example, in Rwanda almost all women in the reproductive ages are employed; however, a large proportion work without cash earnings, and few working women have any education or work in the modern sector. Thus, while Rwanda will score high if women's status is measured by women's labor force participation rates alone, it will score low if the nature of work is taken into consideration. Similarly, in Ghana a large share of households are female-headed and female household headship is positively related to education. This suggests not only that a significant proportion of women have the autonomy that is likely to be associated with being a household head, but also that female household heads have a higher status due to relatively higher education. Simultaneously, however, households headed by females in Ghana are especially vulnerable since female-headed households are not only found to be more economically disadvantaged compared to male-headed households, but also the large majority of households headed by females are composed of only one adult (the female head) with dependent children. Women's economic vulnerability, all else being the same, is likely to be negatively associated with women's status.

Thus, there is clearly a need to summarize in some meaningful way all that can be learnt from DHS data about women's status. Undoubtedly, the defining of such a summary measure requires judgements, some of which will be controversial, about which indicators to select for inclusion, how to weigh the contribution of each indicator, and how best to summarize the large variance in values that the selected indicators will undoubtedly have across countries. There is little precedence in the literature to provide guidance in trying to either select indicators or fashion threshold points for the indicators selected.

We have developed one possible summary measure of women's status based on 29 different indicators (listed in the appendix). The indicators include measures of a) women's relative poverty-wealth status (1 indicator), b) the incidence and vulnerability of female-headed households (5 indicators), c) the absolute and relative level of women's education, whether women's access to education is increasing over time, and women's

access to media and involvement in reproductive decision making (8 indicators); d) women's extent and type of employment and workload (8 indicators), e) age at marriage and child-birth (3 indicators), and f) interspousal differences in education and employment (4 indicators).

In developing this summary measure we use a "minimalistic" approach in both the selection of indicators and the specification of threshold levels for indicators. By "minimalistic" we mean that the summary measure is defined in terms of a minimum level of women's status rather than a desirable level of women's status. This approach implies that threshold levels defined for indicators can be interpreted only as minimum cut-off points: a value for an indicator below this threshold level indicates a "low" absolute level of women's status as measured by that indicator and a value above the threshold level indicates only that the minimum criterion for that indicator has been met. *A value above the threshold level does not imply that the country has met any ideal or desirable standards for that indicator.* All indicators are given the same weight.

The need to maintain a comparative perspective requires that the range of values existing in the data be used as guides in selecting the minimum necessary threshold points. For example, ideally we may want "all women in the country to have at least some education"; practically, however, from a comparative analysis perspective, such a cut off point for the education indicator would be unrealistic, since no country would satisfy this condition. Selection of threshold points for indicators based on the range of values across countries allows assessment of each country's relative position. Thus, cut off points, or threshold levels, for most indicators are chosen to lie about midway in the range of available values. In the case of indicators reflecting change over time, the minimum acceptable direction of change is one that indicates improvement favoring women. We reiterate that these minimum levels for indicators are not to be treated as ideal desirable levels: the minimum levels for indicators are the minimum "acceptable" given the actual range of values found in countries.

The derived summary measure, which we call the Threshold Measure of Women's Status (TMWS), indicates the total number of criteria satisfied by each country. Scores on this measure are then used to rank countries on the extent to which they meet minimal women's status criteria. For every criterion a country satisfies it gets a score of 1; if it is unclear whether a country is satisfying a criterion or not (as when women's relative position appears to improve but not linearly) then the country scores half a point. Since Malawi, Rwanda and Turkey are missing information on one criterion each, and Nigeria, Indonesia and Paraguay are each missing information on two criteria, an adjusted total score, in the form of a proportion ranging from 0 to 1, is calculated for each country

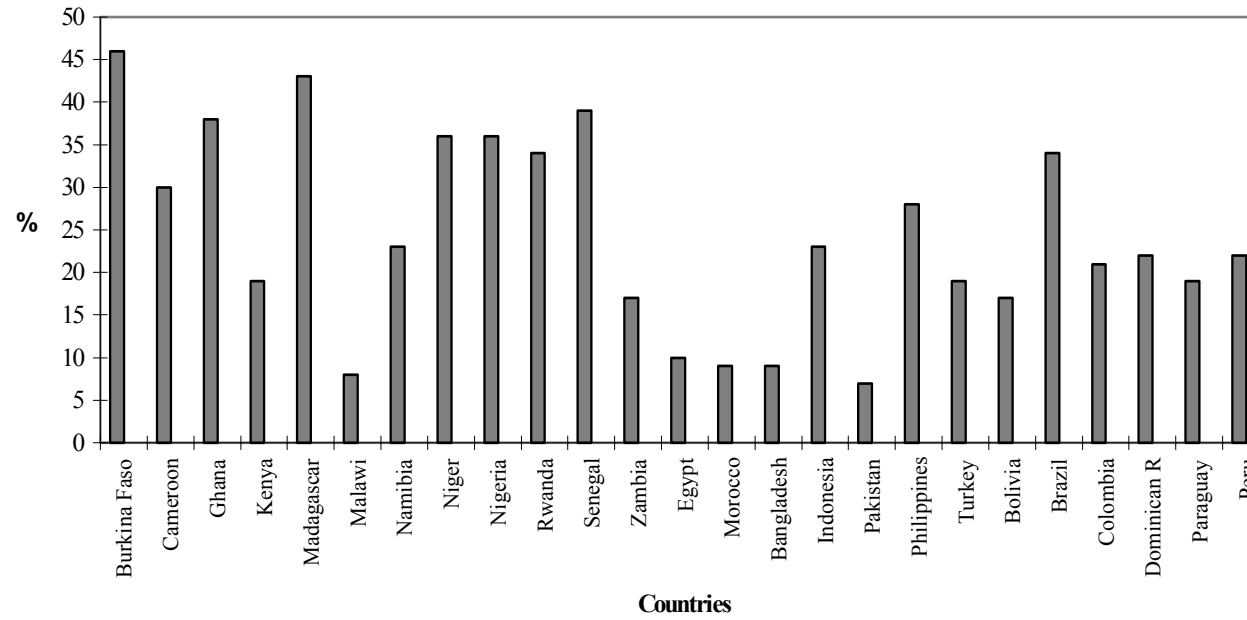


Figure 20.9. Percentage of women who have at least the same number of years of education as their husbands and who work for cash

The adjusted total score is the original total score divided by the number of criteria on which the country has been scored. The closer the adjusted total score is to 1, the closer the country is to satisfying at least the defined minimum threshold level of women's status. Countries are then ranked according to this adjusted total score on the TMWS.

Countries vary in terms of the dimensions of women's status that they do well on and the ones they do poorly on (Table 20.10.A, in Appendix). Nonetheless, no country scores a perfect 1. Thus, in absolute terms there is no country which meets even this set of minimum standards for women's status. The Latin American and Caribbean countries do *relatively* better on the TMWS than countries in other regions. With a score of 0.86, the Dominican Republic gets the highest rank. Bolivia is the only Latin American country to do poorly on the TMWS. The only non-Latin American/Caribbean countries that score above 0.70 are the Philippines, which has a rank second only to the Dominican Republic, and Namibia which has a rank of 5 just before Paraguay and Peru. Egypt and Morocco, the two North African countries, both meet about half of the criteria and rank about midway among all the countries considered. The countries that are worst off in terms of their rank on the TMWS are Niger in sub-Saharan Africa, with a score of 0.21 and the lowest rank, followed by Bangladesh and Pakistan in Asia.

Notably, the only countries in sub-Saharan Africa, other than Namibia, that have a relatively high rank are Madagascar (8), Kenya (10), and Ghana (11). These countries score relatively high on the TMWS in part because they all do better than any other sub-Saharan African country (other than Namibia) on education. However, it bears repeating that the rankings on the TMWS give only the relative status of women across countries and not the absolute position of countries with regard to women's status. Consequently, this comparison says nothing about the distance countries need to travel to improve the situation of women, nor does it tell us, even for countries scoring high on the TMWS, how far above the threshold level they are.

Given the experimental nature of this indicator, it is fruitful to compare how the ranks of countries on the TMWS compare with their ranks on other indicators that either measure gender equality or take gender inequality explicitly into consideration. Two such indicators are the Gender-related Development Index (GDI) and the Gender Equality Measure (GEM) (United Nations, 1995a). The GDI is constructed using information on the overall achievements of women as compared to men on three dimensions: life expectancy, educational attainment, and adjusted real income. The GEM measures the economic, political and professional participation of women as compared to men, and uses information

on income earning power, share in professional and managerial jobs and share of parliamentary seats (United Nations 1995a, Chapter 3).

Clearly, a comparison of the ranks of countries on the TMWS and the GDI and GEM cannot serve to *validate* the TMWS, since these indices are all based on dimensions of women's status which are only minimally overlapping. What it can do is to check for consistency across alternative indices of women's status and help to get a more complete picture of women's status in these countries. Examining three complementary indices, instead of just one, will allow us a greater insight into the situation of women in each country.

Since GDI and GEM values are not available for all of the 25 countries included in this report, the countries are re-ranked on the TMWS after excluding countries for which the GDI is not available. The new ranks are given in Table 11.A, in Appendix. If the TMWS rank for a country is different when only the countries for which GEM values are available are ranked, the alternative rank is given in parentheses⁷.

The countries that have the highest TMWS values are also the ones that score relatively high on the GDI and GEM. Of the top seven scorers on the TMWS in Table 20.11.A, in Appendix (the Dominican Republic, the Philippines, Brazil, Colombia, Namibia, Paraguay, and Peru), Colombia and Namibia are not scored on the GDI. The remaining 5 countries all have ranks less than 7 on the GDI. The top scoring seven countries are, however, all ranked on the GEM and all but Paraguay also have a rank less than 7 on the GEM. Turkey and Indonesia do very well on the GDI but not on the TMWS; and only Indonesia does well on the GEM but not on the TMWS. The only other country which scores much higher on the GDI and the GEM (ranked 10 on both) than it scores on the TMWS is Cameroon. On the other hand Madagascar does better in terms of the TMWS than it does on the GDI. (The GEM value is not available for Madagascar.)

Overall, however, there is consistency in the rankings of countries on these three different measures of women's status and gender inequality. Indeed, seven countries have ranks on each of the available indices which do not differ by more than two points from one another; and in another 14 countries the ranks on at least two indicators do not differ by more than three points. This consistency is remarkable since the GDI, GEM and TMWS are not only measuring different aspects of women's status but they approach the measurement in different ways. Whereas the GDI and GEM rank countries using indices based on the actual values of indicators, the TMWS ranks countries on whether they have met *minimal* criteria or not. For example, if two countries have an equal score on the GDI (or GEM), then it can be

⁷ The GDI and GEM rankings reported here are not the original rankings available in Tables 3.1 and 3.5 of the 1995 Human Development Report (United Nations 1995); instead, they are the rankings that these countries would have had if their original ordering on the GDI and GEM was maintained but no other countries except those in this study were being ranked.

unequivocally said that the sum of the indices that comprise the GDI (or GEM) is equal in the two countries. By contrast, an equal score for two countries on the TMWS implies only that they have met an equal number of criteria; distances from the threshold levels are not evaluated and thus nothing can be said about the values of the indicators in each country. Thus, while countries that score high on GDI and GEM are likely to have met the minimal criteria on which the TMWS is based, there is no guarantee that countries that have met the minimal criteria (i.e., score high on TMWS) will also score high on the GDI and GEM. Despite these differences, the fact that the three indicators give similar results suggests that there is interdependence among the numerous dimensions of women's status, and alternative ways of measuring do give relatively consistent results.

CONCLUSION

This paper has provided examples of the kinds of insights that descriptive cross-country comparisons of DHS data can provide into the different dimensions of women's status. One possible approach to summarizing the information was also discussed. Despite its shortcomings, and the large number of possibly controversial assumptions used in its construction, the summary indicator of women's status derived from DHS data was found to be consistent with other gender equality indicators. While this consistency cannot be taken as providing validation for the DHS-data based women's status indicator, it does help build confidence in the validity of these data and underscores their utility for measuring women's status.

Overall, however, the objective of this paper was not to suggest that the examples provided are the only way, or even the ideal way, for utilizing the large amount of data available in DHS; instead, the objective was to introduce researchers interested in women's status to the *potential* for examining women's status using DHS data. These examples are also meant to encourage the development of indicators of women's status that can be used to provide insights into the circumstances of women's lives that will help us better explain demographic and health phenomena.

REFERENCES

- ADEPOUJOU, A. (1994), "The Demographic Profile: Sustained High Mortality and Fertility and Migration for Employment", in: *Gender Work and Population in Sub-Saharan Africa*, A. Adepoju and C. Oppong, London, James Currey, p. 17-34.

- BLUMBERG, R. L. (1989), *Making the Case for the Gender Variable: Women and the Wealth and Well-Being of Nations*, Technical Reports in Gender and Development, N° 1, Office of Women in Development, Agency for International Development.
- BOSERUP, E. (1970), *Women's Role in Economic Development*, New York, St. Martin's Press.
- BRUCE, J. (1989), "Homes Divided", *World Development*, Vol. 17, N° 7, p. 979-991.
- DESAI, S., and D. JAIN (1994), "Maternal Employment and Changes in Family Dynamics: The Social Context of Women's Work in Rural South Asia", *Population and Development Review*, Vol. 20, N° 1, p. 115-136.
- DIXON-MUELLER, R. B. (1993), *Population Policy and Women's Rights: Transforming Reproductive Choice*, Connecticut, Praeger.
- DYSON, T., and M. MOORE (1983), "On Kinship Structure, Female Autonomy and Demographic Balance", *Population and Development Review*, Vol. 9, N° 1, p. 35-60.
- HADDAD, L. (1990), "Gender and Poverty in Ghana", Development Economics Research Center, University of Warwick.
- HARTMANN, H. (1981), "The Family as the Locus of Gender, Class, and Political Struggle: The Examples of Housework", *Signs*, Vol. 6, N° 3.
- INSTITUTE FOR RESOURCE DEVELOPMENT/MACRO INTERNATIONAL (1990), *Interviewer's Manual for Use with Model "A" Questionnaire for High Contraceptive Prevalence Countries*, Demographic and Health Surveys Phase II, Basic Documentation-3.
- KERBER, L. (1994), "Intra-Household Power and Fertility in Brazil", communication à la réunion annuelle de la Population Association of America, 5-7 May, Miami, Florida.
- KISHOR, S. (1994), "Autonomy and Egyptian Women: Findings from the 1988 Egypt Demographic and Health Survey", *Occasional Papers*, N° 2, Demographic and Health Surveys, Macro International.
- KISHOR, S., and K. NEITZEL (1996), *The Status of Women: Indicators for 25 Countries*, DHS Comparative Studies, N° 21, Calverton, Maryland, Macro International.
- LLOYD, C. B., and A. GAGE-BRANDON (1993), "Women's Role in Maintaining Households: Family Welfare and Sexual Inequality in Ghana", *Population Studies*, Vol. 47, p. 115-131.
- MACRO INTERNATIONAL (1994), *Description of the Demographic and Health Surveys Individual Recode Data File*, DHSIII Version 1.0 (avec les modifications par rapport à la DHSII).
- MASON, K. O. (1986), "The Status of Women: Conceptual and Methodological Issues in Demographic Studies", *Sociological Forum*, N° 1, p. 284-300.

- MASON, K. O. (1995), "Is the Situation of Women in Asia Improving or Deteriorating?", *Asia-Pacific Population Research Reports*, N° 6.
- MOGHADAM, V. M. (1992), *Modernizing Women: Gender and Social Change in the Middle East*, Boulder, Colorado, and London, Lynne Reiner Publishers.
- OPPONG, C. (1987), *African Mothers, Workers and Wives: Inequality and Segregation*, Working Paper N° 2, Population, Human Resources and Development Planning in Sub-Saharan Africa, Geneva, ILO.
- PAPANÉK, H. (1989), "Family Status-Production Work: Women's Contribution to Social Mobility and Class Differentiation", in: Maithreyi Krishnaraj and Karuna Chanana, ed., *Gender and the Household Domain: Social and Cultural Dimensions*, London, Sage Publications, p. 97-116.
- SAFA, H. I. (1992a), "Development and Changing Gender Roles in Latin America and the Caribbean", in: Hilda Kahne and Janet Z. Giele, ed., *Women's Work and Women's Lives: The Continuing Struggle Worldwide*, San Francisco, West View Press, p. 69-86.
- SAFA, H. (1992b), *Gender Inequality and Women's Wage Labor: A Theoretical and Empirical Analysis* (Unpublished manuscript).
- SEN, A. (1989), "Cooperation, Inequality and the Family", *Population and Development Review*, Vol. 15, suppl., p. 61-76.
- SEN, A. K. (1990), "Gender and Cooperative Conflicts", in: Irene Tinker, ed., *Persistence of Inequalities: Women and World Development*, New York, Oxford University Press.
- UNITED NATIONS (1995a), *Human Development Report 1995*, UNDP, New York, Oxford University Press.
- UNITED NATIONS (1995b), *Women's Education and Fertility Behavior: Recent Evidence from the Demographic and Health Surveys*, Department for Economic and Social Information and Policy Analysis, Population Division, New York.
- WHITEHEAD, A. (1994), "Wives and Mothers: Female Farmers in Africa", in: Aderanti Adepoju et Christine Oppong, ed., *Gender, Work and Population in Sub-Saharan Africa*, Portsmouth, NH, Heinemann, p. 35-53.
- WHYTE, M. K. (1978), *Status of Women in Preindustrial Societies*, Princeton, NJ, Princeton University Press.
- WORLD BANK (1989), *World Development Report 1989: Financial Systems and Development*, New York, Oxford University Press.
- WORLD BANK (1990), *World Development Report 1990: Poverty*, New York, Oxford University Press.

APPENDIX

Definition of categories of the Amenities and Possessions Index (API)

Individuals are assigned the following values of the API index according to whether their household has the specified combination of basic amenities and consumer durables:

HIGH API: Bottled water or water piped into residence (or property, where relevant) for both drinking and non-drinking purposes; own (not shared) flush toilet, electricity, all four consumer durables namely radio, television, refrigerator and car.

MEDIUM-HIGH API: Any kind of drinking and non-drinking water source other than surface water; any kind of flush or pit toilet latrine or "other" toilet facilities; may or may not have electricity; at least two of the four consumer durables;

MEDIUM API (The residual category): Any kind of drinking or non-drinking water source including surface water and "other" water sources; any kind of toilet facility including those listed under no facility and "other"; may or may not have electricity; any combination of the four consumer durables including none;

LOW API: Only surface water for drinking and non-drinking purposes; no toilet facility; no electricity; none of the four consumer durables.

Criteria used to construct the summary measure of women's status

Relative Socioeconomic Status

1) Sex ratios are lower in "richer" than in "poorer" households: To qualify for a "yes" on this indicator the sex ratios of households in both the HIGH and MEDIUM-HIGH categories of the API in the given country have to be lower (favor women) than the sex ratios of the MEDIUM and LOW categories. If the sex ratios of only one of the "rich" categories is lower than the sex ratios of both the "poor" API categories the country is assigned a "U" (for "unclear").

Female Household Headship

2) More than 20% of households are female-headed: This indicator suggests that women are free to form households on their own. Further, women who are household heads are likely to have high autonomy;

3) The sex ratio in female-headed households is 100 or more excluding the household head: This variable captures the "double jeopardy" argument mentioned above. To qualify for a "yes", female-headed households in the country must have, on average, at least an equal representation of males and females among the members of female-headed households;

4) At most 25% of female-headed households consist of one adult and children: This indicator summarizes the vulnerability of female-headed households due to their composition;

5) Women with no education are less likely than those with education to be household heads: Female household headship is more likely to be associated with high women's status if household headship is positively related to education than if it is not;

6) female-headed households are at least as likely to be "rich" as male-headed households: This is a more direct measure of the socioeconomic status of female-headed households. The minimum criterion is that female-headed households should not be *more* socioeconomically disadvantaged than male-headed households. The assessment of "rich" is based on the percentage distribution of households across the API. To qualify for a "yes" on this variable, a higher (or about equal) proportion of female- than male-headed households have to be accounted for by the two API categories: HIGH and MEDIUM-HIGH.

Education and Exposure

7) At least 50% of women have four or more years of education: This indicator sets a "floor" for the minimum acceptable level of education. It specifies that women must have a higher probability of having some education than not having any. Less than four years of education is unlikely to have lasting benefits;

8) At least 20% of women have secondary or higher education: In addition to a "floor" in defining educational opportunities for women, we also need to examine whether women have access to higher levels of education. In 20 of the 25 countries considered, less than 40% of women have at least some secondary education. Thus 20% of women with secondary or higher education, a proportion which lies half way in the range for most countries, is used as the minimum threshold level;

9) Percentage of women with secondary or higher education increases as age decreases: If the percentage of women who have secondary education increases steadily as we move from the oldest age group (35-49 years) to the youngest age group (15-24 years) a country is assigned "yes" on this measure. If, however, the

percentage of women with secondary or higher education is least among those who are 35-49 years but is higher among those 25-34 years than it is among those 15-24 years, we assign a "U" (for "unclear"). In these countries, there appears to be a decline but it is not steady;

10) Sex ratio of the population with primary education is 101 or less: This measure represents the ability of women to have at least about equal access as men to the lowest levels of education;

11) Sex ratio of the population with secondary or higher education is 110 or less: While ideally we would want no gender differences in access to education above the primary level, we find that few countries meet even the cut-off sex ratio of 110;

12) Sex ratio of the population with no education increases from older to younger cohorts: We have found that in most countries the sex ratio of the population with no education is extremely feminine and that of the population with either primary or secondary education is very masculine. Thus, if the sex ratio of the population with no education increases (tends towards equality) we can expect the sex ratio of the population with some education, primary or secondary or both, to be falling towards equality. To score a "yes" on this indicator, the sex ratio of the population with no education has to rise steadily as we move from the age group 50+ years to the age group 15-24 years. A country is assigned a "U" (for "unclear") if the sex ratio of the population with no education is lowest among the population aged 50 years and above, but is lower among those aged 25-49 years than it is among those aged 15-24 years;

13) One third or less of rural women have no exposure to media: While access to some form of media is fairly common in urban areas, media exposure is limited in rural areas. However, not only do the majority of women live in rural areas in most developing countries, but it is precisely in rural areas where media exposure is likely to have the maximum beneficial effects for women's status. Thus, we define media exposure specifically in terms of rural women;

14) One third or more of women have discussed the number of children with their husbands: Even if women are not educated or exposed to the media, women may still have higher status if they have some control over reproductive decisions. This variable informs us about one aspect of such control.

Employment and workload

15) At least 50% of women are employed: A 50% cut-off point ensures that in countries which score a "yes" on this indicator women have a higher or equal probability of being employed than of not being employed;

16) At most 15% of employed women work without cash earnings: Working without cash earnings is likely to be negatively associated with women's status. Few countries are able to meet even the 15% cut-off point;

17) Labor force participation rises with education: For a country to qualify for a "yes", the labor force participation rates of women with secondary and with higher education must both be higher than the labor force participation rates of women with no or primary education; "U" (for "unclear"), implies that either women with secondary or women with higher education (but not both) have higher labor force participation rates than those with primary education or no education at all. Note that countries with a U-shaped relationship between education and women's labor force participation rates are assigned a "no" on this measure;

18) Labor force participation rises with socioeconomic status: This measure indirectly tells us whether employment is a "need" based phenomenon or not. If employment rises with socioeconomic status it is more likely to reflect true empowerment and choice, than if women work only because of poverty. Further this measure also reflects greater occupational choice. Socioeconomic status is measured by the API. For a country to qualify for a "yes", labor force participation rates of women in the API categories of HIGH and MEDIUM-HIGH must both be higher than the labor force participation rates of women from households in the LOW and MEDIUM API categories; countries are assigned a "U" (for "unclear") if only women in one of the two API categories HIGH or MEDIUM-HIGH have higher labor force participation rates than women in both of the lower two API categories;

19) At least 10% of working women work in modern occupations: Modern occupations include all the professional, managerial, technical and clerical occupations. Women's representation in these occupations is almost nil in several countries as can be seen from the small number of countries that meet even this very low cut-off point;

20) At least 10% of women have primary education and work in modern or mixed occupations: Mixed occupations include sales and manual labor. This measure requires that countries meet two conditions simultaneously. Few countries have more than 20% of women who meet this criterion, thereby justifying the use of what appears to be an exceptionally low cut-off point of 10% for this indicator;

21) Less than 50% of working women provide child care while they work: This measure is based only on employed women who have a child less than 5 years. Employment is likely to be an additional burden for women who must provide child care even while they work;

22) Dependency ratio is 0.9 or less: The dependency ratio is defined as the number of children less than 5 years and persons 60 years or older per woman in the 15- 49 years age group. A dependency ratio of 0.9 implies that, on average, each woman in the reproductive ages is looking after less than one person.

Marriage and child-birth

23) Less than 25% of women age 15-19 are ever-married: A low proportion of women married between the ages of 15-19 years suggests that young women have options other than marriage during their teen years;

24) Less than 25% of women age 15-19 have had a birth: Early child-birth, besides limiting women's life opportunities, is also likely to increase health risks for mother and child;

25) Percentage of first births before age 20 declines from older to younger cohorts: This indicator is included in the summary measure to ensure that health risks and curtailment of life opportunities for women due to very early child-birth are declining over time. "U" is assigned to countries where the percentage of women with a birth before the age of 20 years declines as we move from the older to the younger cohorts but does not do so linearly.

Wife's education and employment relative to her husband

26) At least 50% of wives have equal or greater education than their husbands: Intra-household bargaining models suggest that large educational differences between spouses will translate into differences in relative power. Consequently, we define this measure to have a "floor" level such that a woman is at least as likely of having equal or more education than her husband;

27) At least 25% of wives work for cash and have the same level of education as their husbands: This indicator, like the one above, tells us whether women's individual characteristics put them at a disadvantage relative to their husbands;

28) Wives of husbands in modern occupations are most likely to be employed: This measure compares the labor force participation rates of women who are married to men in modern occupations with the labor force participation of women with husbands in any other occupation, excluding "husband has never worked". This variable also indirectly measures whether employment of women is positively associated with socioeconomic status or not;

29) At least 20% of wives of husbands doing agricultural work are themselves working in non-agricultural occupations: Work in non-agricultural occupations, even when the husband is in agriculture, is likely to be reflective of wider occupational choices for women.

Table 20.1.A. – Distribution of female- and male-headed households by type of household

Country	Sex of Household head	Household type			
		1 adult	1 adult + children	Adults + children	1+ adults, no children
Burkina Faso	Female	16.9	28.7	46.9	7.5
	Male	4.2	0.7	82.7	12.4
Cameroon	Female	30.0	17.9	41.1	11.0
	Male	10.7	1.4	73.0	14.9
Ghana	Female	20.3	45.1	27.9	6.7
	Male	26.7	3.6	59.3	10.4
Kenya	Female	15.6	30.3	44.0	10.1
	Male	14.0	1.9	69.2	14.9
Madagascar	Female	16.2	23.7	46.4	13.6
	Male	4.2	2.2	80.6	13.0
Malawi	Female	12.8	38.6	38.5	10.1
	Male	6.1	1.2	74.7	18.0
Namibia	Female	7.9	13.9	66.9	11.4
	Male	9.7	1.6	69.5	19.2
Niger	Female	19.4	28.3	43.4	8.9
	Male	3.0	1.1	85.6	10.3
Nigeria	Female	23.1	26.7	37.4	12.8
	Male	8.9	1.7	75.1	14.3
Rwanda	Female	7.2	26.4	51.6	14.7
	Male	5.1	2.1	80.9	12.0
Senegal	Female	5.6	11.7	74.0	8.7
	Male	5.0	0.3	86.7	8.0
Zambia	Female	15.2	19.7	53.5	11.7
	Male	4.9	0.7	80.3	14.1
Egypt	Female	23.7	8.7	32.5	35.2
	Male	1.9	0.2	79.3	18.7
Morocco	Female	19.0	10.2	37.8	33.0
	Male	2.5	0.2	79.7	17.6
Bangladesh	Female	10.4	32.6	45.4	11.5
	Male	0.3	0.7	87.4	11.7
Indonesia	Female	25.2	11.0	35.1	28.8
	Male	1.6	0.4	78.3	19.7
Pakistan	Female	10.5	19.7	55.4	14.5
	Male	2.2	0.4	82.1	15.3
Philippines	Female	9.0	8.8	49.7	32.4
	Male	1.8	0.6	79.3	18.3
Turkey	Female	31.9	6.4	26.8	34.9
	Male	1.5	0.1	67.4	31.1
Bolivia	Female	19.4	22.4	35.7	22.6
	Male	5.5	1.6	75.4	17.5
Brazil	Female	16.7	16.1	44.2	23.0
	Male	4.2	0.5	74.1	21.2
Colombia	Female	12.2	13.9	43.0	30.9
	Male	4.8	0.6	73.2	21.4
Dominican R	Female	10.0	15.7	50.4	23.9
	Male	7.8	1.2	70.4	20.6
Paraguay	Female	11.8	13.0	46.9	28.4
	Male	4.3	0.7	76.1	18.9
Peru	Female	7.3	14.4	50.9	27.4
	Male	2.3	0.7	78.9	18.1

Table 20.2.A. – Sex ratio of the population age 15 years and over, by education

Country	Sex ratio by level of education			Sex ratio of population 15 years or more*
	None	Primary	Secondary or higher	
Burkina Faso	76.5	159.6	179.7	88.0
Cameroon	55.5	120.0	152.0	90.0
Ghana	56.0	97.0	182.4	85.1
Kenya	42.5	104.5	137.8	90.7
Madagascar	68.1	99.2	110.2	97.9
Malawi	44.0	144.3	273.9	95.7
Namibia	84.6	90.5	85.3	89.1
Niger	84.8	156.7	216.7	92.7
Nigeria	68.7	135.8	174.3	97.9
Rwanda	62.6	122.5	136.9	95.7
Senegal	70.5	116.2	185.0	85.5
Zambia	43.8	101.0	182.0	103.2
Egypt	56.1	116.2	170.3	105.1
Morocco	62.7	159.2	162.3	91.2
Bangladesh	69.8	110.1	200.8	101.6
Indonesia	43.9	101.0	137.6	95.2
Pakistan	68.1	198.4	262.6	108.8
Philippines	72.7	102.5	101.6	100.6
Turkey	36.8	99.8	189.2	96.1
Bolivia	32.8	87.0	126.0	90.9
Brazil	102.0	89.8	70.6	91.6
Colombia	95.3	89.6	85.3	88.3
Dominican R	103.7	96.4	84.0	95.2
Paraguay	49.8	96.4	111.6	98.3
Peru	27.5	90.0	112.9	96.1

* Includes population missing on education. This proportion is never greater than 2% except in Madagascar where it is 5.0%, Namibia where it is 2.4%, and the Dominican Republic where it is 2.2% of the population.

Table 20.3.A. – Percentage of women who have secondary or higher education, by age group

Country	Age group (years)		
	15-24	25-49	50 +
Burkina Faso	9.8	3.6	0.1
Cameroon	33.7	15.4	0.4
Ghana	11.9	9.4	1.5
Kenya	24.3	22.2	1.2
Madagascar	29.5	22.6	3.5
Malawi	4.4	3.7	0.2
Namibia	40.6	34.3	9.8
Niger	5.4	1.8	0.1
Nigeria	31.7	11.1	0.8
Rwanda	9.7	5.9	0.3
Senegal	11.6	7.8	0.4
Zambia	27.7	21.2	1.3
Egypt	59.3	25.1	4.9
Morocco	28.3	13.8	0.8
Bangladesh	28.3	13.6	2.4
Indonesia	44.8	20.9	5.0
Pakistan	25.4	12.9	2.6
Philippines	79.0	59.7	26.9
Turkey	33.4	17.7	4.9
Bolivia	65.6	40.2	13.9
Brazil	18.1	19.5	4.1
Colombia	63.8	49.1	16.1
Dominican R	46.8	38.2	8.8
Paraguay	42.9	31.6	11.4
Peru	78.0	56.6	27.0

Table 20.4.A. – Sex ratios of the total population and the population with secondary or higher education, by age group

Country	Secondary and higher			Total		
	15-24	25-49	50+	15-24	25-49	50+
Burkina Faso	166.3	194.7	-	100.0	80.0	87.6
Cameroon	121.9	187.3	-	93.2	91.6	82.6
Ghana	138.6	184.5	605.0	95.4	79.8	84.0
Kenya	100.8	162.4	420.8	94.5	91.0	84.0
Madagascar	93.2	121.1	207.4	104.2	95.8	91.6
Malawi	166.1	325.1	-	101.8	93.3	91.5
Namibia	70.2	95.0	114.4	96.0	88.1	81.1
Niger	186.1	267.5	-	88.7	92.3	99.9
Nigeria	131.1	227.8	793.3	98.4	93.1	106.8
Rwanda	125.6	133.8	-	95.7	97.5	91.6
Senegal	176.5	174.4	-	95.3	76.1	90.6
Zambia	133.4	228.5	759.8	101.5	104.3	104.7
Egypt	139.3	200.4	378.6	109.2	102.9	103.9
Morocco	136.7	189.6	547.6	90.1	90.5	94.3
Bangladesh	127.3	261.7	1012. 3	86.0	109.1	113.2
Indonesia	114.9	156.3	258.1	90.6	97.3	97.1
Pakistan	207.7	299.1	710.5	105.0	106.1	120.0
Philippines	96.5	103.9	112.1	107.7	102.1	87.3
Turkey	160.5	219.0	251.0	93.4	100.4	92.2
Bolivia	111.8	136.4	155.3	92.4	92.1	86.5
Brazil	61.3	74.6	88.6	102.3	90.1	81.3
Colombia	76.8	90.1	102.4	85.3	89.7	89.8
Dominican R	68.0	96.2	115.2	92.7	97.2	95.1
Paraguay	101.0	117.7	129.5	95.8	104.1	90.7
Peru	100.9	119.7	134.8	95.8	96.6	95.4

Table 20.5.A. – Percentage of women who are employed,
by level of education

Country	Level of education			
	None	Primary	Secondary	Higher
Burkina Faso	60.6	62.1	33.9	64.0*
Cameroon	72.7	57.5	32.7	37.0*
Ghana	84.2	70.6	58.8	79.2
Kenya	51.1	47.0	51.7	66.8*
Madagascar	79.3	82.6	66.0	59.0
Malawi	21.4	29.0	46.7	48.2
Namibia	30.8	26.5	40.9	78.4
Niger	43.4	43.5	32.5	-
Nigeria	63.4	66.3	46.4	66.9
Rwanda	97.8	94.2	60.5	-
Senegal	47.3	41.0	31.0	44.4*
Zambia	50.0	47.3	47.2	91.2
Egypt <u>1/</u>	18.0	14.4	32.8	57.9
Morocco	21.2	26.6	23.6	45.2
Bangladesh <u>1/</u>	18.6	13.2	8.3	25.3
Indonesia <u>1/</u>	54.4	41.4	38.9	61.2
Pakistan <u>1/</u>	17.9	10.8	12.5	27.8
Philippines	46.8	43.7	34.3	50.6
Turkey <u>1/</u>	33.1	33.7	27.5	73.9
Bolivia	73.1	63.4	48.0	63.2
Brazil	47.5	41.4	59.4	83.8
Colombia	34.5	34.8	37.4	64.8
Dominican R	36.2	34.9	41.9	70.7
Paraguay	35.1	38.3	42.3	65.9
Peru	64.6	57.1	42.4	59.7
* Less than 50 cases. - Less than 25 cases. <u>1/</u> Ever married sample.				

Table 20.6.A. – Women's labor force employment and employment without cash by the Amenities and Possessions Index

Country	% employed of all women				% of employed women working without cash			
	Amenities and Possessions Index				Amenities and Possessions Index			
	High	Med. High	Medium	Low	High	Med. High	Medium	Low
Burkina Faso	45.5*	51.9	60.0	57.0	-	7.1	15.7	14.0
Cameroon	33.6	36.7	61.9	83.7	9.7*	9.0	27.1	31.8
Ghana	54.9	67.9	75.5	82.6	5.1*	8.2	17.7	40.8
Kenya	48.7	59.1	48.5	43.2	3.5	4.3	18.3	31.3
Madagascar	58.6*	60.2	74.9	85.3	-	2.5	8.8	15.5
Malawi	57.9*	32.9*	25.8	28.4	-	-	8.6	15.9
Namibia	53.9	50.1	28.1	15.0	4.8	4.3	22.2	21.9
Niger	-	43.2	42.8	49.4	-	7.0	13.4	6.1*
Nigeria	53.9	60.4	60.5	67.6	13.5	22.7	23.4	39.8
Rwanda**	58.7*	55.5	93.9	97.4	-	1.2*	38.3	43.7
Senegal	48.1	38.1	46.4	33.3*	0.0	4.1	7.8	-
Zambia	46.7	46.7	49.4	43.1	2.4	4.3	10.4	22.8
Egypt	37.8	21.0	22.3	-	1.0	18.2	47.4	-
Morocco	34.4	20.5	22.6	14.7	2.0	7.1	52.7	64.5*
Bangladesh	15.5	11.6	16.2	16.0	9.6*	7.1*	8.5	-
Indonesia	48.5	41.6	43.4	57.0	NA	NA	NA	NA
Pakistan	11.6	10.2	18.5	11.7	-	7.5	26.2	63.2*
Philippines	66.4	48.9	36.9	43.1	1.3	2.2	10.8	37.1
Turkey	26.5	31.4	48.4	-	NA	NA	NA	NA
Bolivia	55.7	53.2	60.9	72.9	3.0	9.2	39.1	68.1
Brazil	57.0	48.2	42.9	41.8	1.7	1.6	7.0	8.0
Colombia	52.3	40.1	28.1	57.1*	1.0	2.6	7.0	-
Dominican R	57.2	45.2	32.7	38.5	5.6	7.4	11.5	51.8
Paraguay	55.1	45.3	30.4	-	0.1	5.0	33.4	-
Peru	57.8	49.9	52.8	61.4	3.1	6.1	31.7	46.6

* Less than 50 cases
**About 4% of respondents are missing on API and employment.

Table 20.7.A. – Two indirect measures of women's workload

Country	Women who have a child age 5 or less and work away from home		Women age 15 or more in households without water on residential premises/3	
	Total %	% who "usually" have child with them when they work	Total %	% for whom time to fetch water is > 15 minutes
Burkina Faso	70.0	59.4	84.2	62.1
Cameroon	77.5	39.1	87.0	52.9
Ghana <u>1/2/</u>	76.6	48.3	81.9	49.7
Kenya	55.4	17.5	81.2	61.3
Madagascar	77.8	51.8	84.6	46.3
Malawi <u>4/</u>	48.9	43.6	95.1	61.9
Namibia <u>4/</u>	68.1	17.4	60.0	63.7
Niger	51.3	67.4	87.8	42.9
Nigeria <u>5/</u>	64.8	46.5	89.0	54.0
Rwanda	91.5	52.5	98.1	71.9
Senegal	77.2	43.6	64.9	48.9
Zambia	69.5	45.1	66.9	47.3
Egypt <u>1/6/</u>	92.4	23.7	22.9	40.8
Morocco	65.4	31.0	44.6	72.6
Bangladesh	27.5	-	95.6	10.0
Indonesia	-	-	89.3	8.55
Pakistan	53.9	48.5	69.0	28.7
Philippines <u>1/</u>	67.7	10.5	37.7	17.3
Turkey	-	-	22.6	-
Bolivia <u>6/</u>	75.6	-	42.4	31.8
Brazil <u>4/</u>	77.7	10.7	23.4	44.2
Colombia <u>4/</u>	69.5	13.8	10.2	25.4
Dominican R <u>1/</u>	71.0	32.4	61.9	27.9
Paraguay <u>1/5/</u>	50.7	18.6	62.2	8.9
Peru <u>1/</u>	71.7	45.2	30.0	26.0

1/ Respondents excluded due to missing data on working women with young child range from 2-5% of all eligible respondents.

2/ In Ghana the cutoff was children aged 4 years. However, some women with children a few months older than 4 years were also asked these questions and are included in the tabulations.

3/ Water on premises includes (where available): water piped into residence or property, well on property, bottled water and rainwater.

4/ Respondents excluded due to missing data on time to water source range from 2 - 5% of eligible respondents.

5/ Data on water restricted to women 15-49.

6/ Data on water based on time to drinking water source rather than household water source.

Table 20.8.A.– Comparison of the level of education of currently married women with that of their husbands (Only for couples where information is available on the education level of both husbands and wives)

Country	All couples: % of wives whose education as compared to that of their husbands is:			Husbands education												Number of couples	
				None			Primary			Secondary or higher			Unknown	Total			
	% of hus- bands	% of wives with education which is:		% of hus- bands	% of wives with education which is:			% of hus- bands	% of wives with education which is:			% of hus- bands					
		Lower	Same		Higher	Lower	Same		Higher	Lower	Same		Higher				
Burkina Faso	9.4	83.6	6.9	83.9	93.8	6.2	7.4	73.2	12.6	14.2	4.7	78.1	12.8	9.2	4.1	100.0	5,230
Cameroon	40.0	47.0	13.0	41.6	89.1	10.9	28.6	55.6	22.7	21.7	26.4	86.2	6.8	7.0	3.4	100.0	2,863
Ghana	43.2	42.6	14.2	32.0	82.2	17.8	44.5	62.4	28.1	9.6	19.8	69.9	11.1	19.0	3.7	100.0	3,144
Kenya	56.6	25.9	17.5	12.1	68.3	31.7	51.5	58.7	18.3	23.0	35.2	73.0	22.5	4.5	1.1	100.0	4,581
Madagascar *	40.0	27.6	32.4	17.8	59.8	40.2	44.7	43.6	23.4	33.0	26.1	61.1	12.7	26.3	11.4	100.0	3,615
Malawi	66.0	22.8	11.2	21.5	77.0	23.0	66.9	83.4	7.7	8.9	10.7	89.3	8.6	2.0	0.9	100.0	3,463
Namibia *	35.4	31.7	33.0	28.4	56.4	43.6	32.8	39.1	16.8	44.1	35.5	60.2	25.6	14.2	3.4	100.0	2,203
Niger	5.8	89.1	5.1	91.9	95.1	4.9	4.6	81.1	11.0	7.9	2.3	88.2	5.0	6.8	1.2	100.0	5,526
Nigeria	27.7	62.8	9.4	57.9	91.4	8.6	24.0	57.6	27.5	14.9	17.8	77.7	17.6	4.7	0.3	100.0	6,789
Rwanda	43.9	28.2	27.9	33.1	62.9	37.1	59.9	64.5	10.7	24.8	6.1	79.3	12.2	8.5	0.9	100.0	3,761
Senegal	12.4	80.8	6.8	79.1	93.5	6.5	7.3	70.4	16.5	13.1	7.4	87.6	8.0	4.3	6.2	100.0	4,375
Zambia	65.8	19.6	14.6	9.1	58.8	41.2	49.5	62.3	19.7	18.1	40.5	84.8	10.7	4.5	0.8	100.0	4,424
Egypt	44.7	40.0	15.3	32.3	80.0	20.0	29.0	67.9	14.7	17.4	38.6	64.7	25.5	9.8	0.1	100.0	9,144
Morocco	30.2	62.1	7.7	61.3	93.1	6.9	19.7	78.5	12.9	8.6	18.5	79.1	11.4	9.6	0.5	100.0	5,100
Bangladesh	44.6	43.3	12.1	44.8	83.4	16.6	24.2	68.8	15.7	15.5	30.5	90.8	6.2	2.9	0.5	100.0	8,814
Indonesia	45.6	34.5	19.8	11.3	66.4	33.6	59.9	44.3	32.5	23.1	28.8	66.1	26.3	7.6	0.1	100.0	21,015
Pakistan	44.1	51.1	4.8	48.8	95.4	4.6	16.9	85.1	8.2	6.7	34.1	86.6	9.0	4.3	0.2	100.0	6,342
Philippines	31.4	33.5	35.1	2.4	53.1	46.9	40.8	16.6	33.9	49.5	56.8	43.4	32.3	24.3	0.0	100.0	8,877
Turkey	49.0	42.4	8.5	8.0	74.7	25.3	56.6	38.5	54.1	7.4	35.5	76.9	16.6	6.6	0.0	100.0	6,266
Bolivia	62.7	21.8	15.5	4.3	69.2	30.8	37.3	62.4	18.1	19.5	58.2	67.4	20.7	11.9	0.2	100.0	5,312
Brazil	24.0	33.3	42.7	17.8	51.8	48.2	66.7	26.5	27.3	46.2	12.7	44.3	39.1	16.5	2.8	100.0	3,536
Colombia	38.9	26.5	34.6	7.2	26.2	73.8	46.9	29.6	28.7	41.7	45.8	54.7	24.2	21.1	0.0	100.0	4,400
Dominican R *	41.9	19.2	38.8	10.1	26.8	73.2	47.1	34.7	18.6	46.7	36.5	62.9	17.9	19.2	6.2	100.0	3,951
Paraguay	42.3	27.6	30.1	2.0	24.2	75.8	61.2	31.7	32.2	36.1	36.1	62.5	20.1	17.5	0.7	100.0	3,543
Peru	53.0	30.1	16.9	2.3	69.5	30.5	32.7	48.1	28.8	23.1	64.7	57.4	29.3	13.3	0.3	100.0	8,728

* Percentage of couples with missing information is between 2% and 4%.

Note: Husbands with information missing on the number of years of education are excluded from the distribution.

Table 20.9.A. – Percentage of women with different combinations of education and employment for cash

Country	% of women who have at least completed secondary education and are employed in modern occupations	% of women who have at least completed primary education and work in mixed or modern occupations	% of women who have some education and work for cash
Burkina Faso	0.5	4.4	7.9
Cameroon	0.8	8.9	22.2
Ghana	1.6	23.1	39.8
Kenya	1.1	13.3	32.8
Madagascar	0.8	12.4	55.3
Malawi	0.7	3.8	14.8
Namibia	4.3	13.5	24.2
Niger	0.2	1.1	3.6
Nigeria	2.1	12.4	17.1
Rwanda	0.5	2.3	35.6
Senegal	0.7	5.0	9.5
Zambia	2.8	20.8	36.9
Egypt	8.8	9.5	11.5
Morocco	1.9	6.7	8.6
Bangladesh	0.6	2.4	4.9
Indonesia	3.5	10.3	NA
Pakistan	0.5	2.0	2.4
Philippines	8.7	24.8	37.6
Turkey	3.7	7.5	NA
Bolivia	6.9	21.6	38.1
Brazil	6.6	12.1	36.1
Colombia	9.3	21.4	36.0
Dominican R	9.2	20.4	35.8
Paraguay	6.0	19.6	35.2
Peru	14.2	30.5	41.8
NA: Not available			

Table 20.10.A – Countries by total and dimension specific scores on the Threshold Measure of Women's Status

Country	Relative socio economic status	Female household headship	Education and exposure	Employment and workload	Marriage and child-birth	Wife's emp. & educ. rel. to husband's	Total Score	Score adjusted for no. of indicators	
								Total	Rank
Maximum score**	1	5	8	8	3	4	29	1.000	-
Burkina Faso	0	2	1	2.5	1	4	10.5	0.362	17
Cameroon	0	1	3	2	0	2	8	0.276	20
Ghana	1	2	4	2	3	2	14	0.483	11
Kenya	0	1	5	5	2.5	1	14.5	0.5	10
Madagascar	.5	3	6	3	2	2	16.5	0.569	8
Malawi	0	1	2.5 (of 7)	3	0	1	7.5 (of 28)	0.268	22
Namibia	0	2	7.5	6	2	3	20.5	0.707	5
Niger	0	0	1	1	0	4	6	0.207	25
Nigeria	na	0 of 4	1	2.5	1	4	8.5 (of 27)	0.315	19
Rwanda	0	1	2.5 (of 7)	1	3	2	9.5 (of 28)	0.339	18
Senegal	.5	2	1	1.5	1	2	8	0.276	20
Zambia	0	1	5.5	3	.5	1	11	0.379	16
Egypt*	.5	2	4	5.5	1	2	15	0.517	9
Morocco	.5	1	4	3	3	2	13.5	0.466	12
Bangladesh*	0	1	2	2	1	1	7	0.241	24
Indonesia*	.5	1	6.5	2 (of 6)	1	1	12 (of 27)	0.444	14
Pakistan*	1	3	1.5	0	1	1	7.5	0.259	23
Philippines	1	3	7	6	3	4	24	0.828	2
Turkey*	.5	1	4.5	3.5 (of 7)	1.5	1	12 (of 28)	0.429	15
Bolivia	1	2	5	3	2	0	13	0.448	13
Brazil	1	3	6.5	7	2	3	22.5	0.776	3
Colombia	1	2	8	6	3	2	22	0.759	4
Dominican R	1	4	7	7	3	3	25	0.862	1
Paraguay	na	2 (of 4)	7	6	2	2	19 (of 27)	0.704	6
Peru	1	3	6.5	5	3	1	19.5	0.672	7

Note: See appendix for indicators of each dimension.
* Only ever married women.
** The relevant maximum score for countries that are missing information on some indicators is given in the relevant cells.

Table 20.11.A. – Ranking countries on the summary measure of women's status, on the Gender-related Development Index and the Gender Empowerment Measure ^{1/}

Country	Rank on the GDI ^{1/}	Ranks on women's status summary measure if only countries for which GDI is available are ranked ^{2/}	Rank on the GEM ^{1/}
Burkina Faso	21	15	13
Cameroon	10	17	10
Ghana	11	9	11
Kenya	9	8(-)	not ranked
Madagascar	14	6(-)	not ranked
Malawi	20	19	17
Namibia	not ranked	- (5)	5
Niger	22	22(-)	not ranked
Nigeria	16	16	20
Rwanda	not ranked	- (-)	not ranked
Senegal	19	17	16
Zambia	15	14	15
Egypt	12	7 (8)	18
Morocco	13	10	14
Bangladesh	18	21	12
Indonesia	6	12	6
Pakistan	17	20	21
Philippines	5	2	1
Turkey	1	13	19
Bolivia	8	11	8
Brazil	2	3	7
Colombia	not ranked	- (4)	2
Dominican R	7	1	3
Paraguay	4	4 (6)	9
Peru	3	5 (7)	4

^{1/} These indices stand for Gender-related Development Index and Gender Empowerment Measure defined in "Human Development Report 1995" Published for the United Nations Development Programme. New York: Oxford University Press. The Human Development Report 1995, ranks 130 countries on the GDI index and 116 countries on the GEM index (Tables 3.1 (p. 76-77) and 3.5 (p. 84-85), UN 1995). The GDI and GEM rankings reported here are not the original rankings; instead, they are the rankings that these countries would have had if their original ordering on the GDI and GEM was maintained but no other countries except those in this study were being ranked. The GDI is constructed using information on overall achievements of women and men on three dimensions: life expectancy, educational attainment and adjusted real income. The GEM measures the economic political and professional participation of women as compared to men and uses information on income earning power, share in professional and managerial jobs and share of parliamentary seats.

^{2/} Parentheses indicate the ranks these countries would have had if we had excluded the countries missing on GEM instead of GDI