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Research Article

**Comparing, Contextualizing, and
Conceptualizing:
Enhancing Quantitative Data on
Women's Situation in Rural Africa**

Enid Schatz

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Research Article

Comparing, Contextualizing, and Conceptualizing: Enhancing Quantitative Data on Women's Situation in Rural Africa

Enid Schatz¹

Abstract

Demographic research focuses mainly on objective variables found in census and survey data. As demographers' interests expand to socially constructed phenomena, the discipline needs to incorporate new tools appropriate for understanding more subjective phenomena. The integration of quantitative and qualitative methods provides the opportunity to analyze data both rich in local meaning and generalizable beyond a small "N." This type of triangulation is particularly necessary in the study of women's situation, an area in which quantitative results have generally confounded demographers. Using survey and ethnographic data, I demonstrate in this paper ways in which qualitative data complements quantitative data on women's situation. I argue that such an iterative methodological process can enrich future investigations in this area by comparing findings, contextualizing quantitative results, and improving the conceptualization of future quantitative measures.

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1. Introduction

In this paper, I show how demographers can employ qualitative data and methods to enhance quantitative research. Furthermore, I discuss why demographers who are interested in socio-cultural issues such as gender should supplement their tool box with qualitative methods. I use an integrated qualitative/quantitative study of women's situation in rural Malawi as a case study to demonstrate that the sum of the two data sources can be greater than the separate parts.

Demographers typically use quantitative data (e.g., from censuses, surveys) to examine macro-level processes and to focus on aggregate, often cross-cultural, comparisons. Effective analysis of objective quantifiable variables benefits from an understanding of the social context from which they come. When examining variables and concepts that are socially constructed and defined, however, it is *essential* to contextualize the variables of interest. In this paper, I give examples of qualitative methods that are accessible to demographers, methods that can improve the interpretation of quantitative findings and the quality of quantitative measures. As social demographers probe the relationship between demographic outcomes and socio-cultural concepts such as gender, this type of investigation clearly shows a need for triangulating data sources, particularly an iterative process of qualitative and quantitative data collection. By nesting qualitative work within survey research, demographers retain the breadth and generalizability available through survey data and gain rich nuanced information to help them explain gendered realities in the local context.

2. Demographers investigate women's situation

The 1994 International Conference on Population and Development (ICPD) piqued demographers' interest in the study of women's position because it posited a relationship between women's situation (status, autonomy, and empowerment) and sexual and reproductive health outcomes. As a result of this focus, demographers have investigated the theorized relationship between women's situation and fertility-related behavior (Blanc *et al.* 1996; Dharmalingam and Morgan 1996; Hindin 2000; Jejeebhoy 2001; Mason 1987; Mason and Smith 1999; Morgan and Niraula 1995; Morgan *et al.* 2002; Oheneba-Sakyi 1999; Ouedraogo and Pictet 2000; Presser and Sen 2000; Schatz 2002). Quantitative findings in this area have largely confounded researchers; few authors have found positive relationships between women's position and fertility outcomes (exceptions include Hindin 2000; Morgan and Niraula 1995; Morgan *et al.* 2002). Demographers still do not have a clear understanding of the links between

women's situation and reproductive health, despite their attempts to capture the multidimensionality of women's position with both proxies (e.g., education, employment status, and age at marriage) and more proximate measures (e.g., freedom of movement, household decision-making power, violence against women) (Blanc *et al.* 1996; Ghuman *et al.* 2000; Jejeebhoy 2000; Kabeer 1999; Kishor and Neitzel 1996; Mason 1986; Mason and Smith 2001).

The lack of evidence of a relationship between women's situation and fertility-related behavior may be partly attributable to inappropriate or poorly specified measures (Mason and Smith 2001). Demographers are still in the early stages of understanding gender and how to measure it. Many variables that demographers use to denote gender refer to "women," but actually do not capture gendered realities (Kaler 2001; Riley 1999; Watkins 1993). Proximate measures of women's situation move the conceptualization of gender in the right direction. Even these variables, however, lack consensus among demographers in terms of terminology, meaning, and measurement. These proximate measures are largely associated with male-female relations of power and authority, about which Mason and Smith (2001) have "very little confidence that we are measuring ...in a meaningful way" (p 1).

There are some basic disadvantages and problems with current quantitative measures of women's situation; I will mention four that have affected my own work. First, existing data often lack qualitative grounding or cultural adaptation; understanding the gender context prior to creating survey questions is crucial. Questions with cultural meaning and significance in capturing women's situation in Asia may not capture the same concepts in Africa. Second, survey researchers often include questions that explicitly measure women's situation only on women's questionnaires (Becker 1996; Kaler 2001; Watkins 1993). Although intuitively it may make sense to ask women about women's situation, researchers miss information about norms and household dynamics when the male perspective is absent from the analysis (Becker 1996). Third, the dichotomous nature of common proximate measures hides situational nuances; for example, describing how or why a decision was made. One way to address the latter issue is through better-specified questions that are based on an understanding of the local context. Another solution is to allow for open responses to survey questions. When those solutions are insufficient, demographers need to look to qualitative data to reveal and explain those nuances. Fourth, quantitative measures of women's situation rarely sufficiently address gendered processes in the household. Qualitative data can reveal not only *what* happens between women and men in a household, but also *how* and *why* these events occur, and they can do so in ways that quantitative data cannot capture. Although better quantitative data can and *should* address some of these issues, a more-nuanced conceptualization of the gendered processes and of the local context gained through the collection of qualitative data will

forward demographers' understanding of women's situation. Furthermore, this understanding can illuminate quantitative data on women's position in new ways.

I am not arguing that demographers should throw out survey methods and become ethnographers. Instead, I believe that demographers can use qualitative data and methods to collect better quantitative data and to improve an understanding and interpretation of survey results (Knodel 1997; Mason and Smith 2001; Obermeyer 1997). Qualitative methods and data can lend themselves to three important improvements in quantitative data: 1) testing of quantitative findings, 2) contextualization of results, and 3) conceptualization of concepts and variables. Although my main focus in this paper is on furthering demographic research on women's situation, my case study can also be used as an example of the usefulness of qualitative methods for the study of other social phenomena.

3. Gender and context in rural Malawi: a case study

The case study I present uses survey and ethnographic data from the Malawi Diffusion and Ideational Change Project (MDICP). MDICP fielded a survey in 1998 (N~1500 women and their spouses), and I conducted supplemental qualitative projects in 1999 and 2000 (N~50 women and their spouses). The MDICP data used in this paper come from two areas of rural Malawi—one site in the southern region and one site in the northern region. The MDICP 1998 survey (henceforth referred to as Malawi 1) included measures of women's education and income as well as a gender module with more proximate measures of women's situation. The ethnographic data include my own non-participant observations and repeated in-depth interviews with 91 respondents (50 women and 41 men). This case study demonstrates the advantages of combining quantitative and qualitative data to further an understanding of women's situation in rural Malawi. The quantitative data provide a sense of macro-level attitudes and opinions about women's situation and enable a statistical analysis of the relationship between women's situation and reproductive outcomes. Although such statistical relationships are difficult to establish with qualitative data, the in-depth interviews uncover processes and mechanisms that underlie women's situation at the micro-level. By integrating the two data sources, I begin to unpack the "black-box" of women's situation in rural Malawi. The nested nature of my study allows me to compare directly qualitative and survey responses of individual respondents as well as to extrapolate my qualitative findings to the larger MDICP study population.

4. Data and methods

In 1998, MDICP conducted a survey in three study sites, one in each of Malawi's three regions: Rumphi in the north, Mchinji in the center, and Balaka in the south (Note 1). I restrict both my quantitative and qualitative data to the respondents interviewed in the northern and southern sites. These two sites present a clear contrast in terms of ethnicity, religion, and kin structure. The majority of households in the northern site are Tumbuka, Protestant, patrilineal, and patrilocal, whereas the population in the southern site is predominantly Yao and Muslim and generally follows matrilineal and matrilineal residence patterns (Note 2). Both of these sites are in rural areas with very few amenities—e.g., no running water or electricity. In addition, the level of poverty in these areas is generally quite high (Malawi Government 2000; UNIMA Center for Social Research and SARDC-WIDSAA 1997).

Between 1998 and 2000, I completed a small pilot and then a larger ethnographic study—the Gender Context Study (GCS) (Note 3). During that period, I devoted three months to the collection of qualitative data in the form of non-participant observation and semi-structured interviews in 14 villages in the northern and southern MDICP study areas. My qualitative research focused on gendered mechanisms and processes within households and the larger community.

4.1 Malawi 1 Survey and GCS Samples

In each of the MDICP sites, the 1998 survey sample consists of approximately 500 ever-married women of childbearing age (between the ages 15 and 49) and their spouses. The sample for the two sites on which I focus includes 1174 women and 1002 men. The survey response rate was 85% among women (999 women) and 67% among men (670 men).

For the GCS, I selected a purposeful sub-sample of 50 couples from the Malawi 1 sample. Although a random sub-sample might have helped to legitimize claims of accurate representation of the Malawi 1 sample, the purposeful sub-sample assured heterogeneity of the Malawi 1 sample, ensuring variation in age, marital status, marriage type, lineage, and residence patterns (Note 4). Table 1 shows the regional distribution of the GCS sample by these characteristics (Note 5). The sampled couples in the southern site came from three Malawi 1 villages. I drew the sample in the northern site from three clusters of Malawi 1 villages; each cluster approximated the size of the villages in the southern site. I interviewed 76% of the originally sampled couples; after replacing the couples that I was unable to find, the couple response rate was 98% (Note 6).

Table 1: *Gender Context Study (GCS) Sample*
(Number of respondents/couples in each category)

	Total	South	North
<i>Women's age</i>			
Under 25	11	6	5
25-35	14	6	8
Over 35	25	13	12
<i>Marital Status</i>			
Married	42	23	19
Divorced	6	2	4
Widowed	2	0	2
<i>Marriage type(of married couples)</i>			
Monogamous	27	16	11
Polygynous	15	7	8
<i>Lineage</i>			
Matrilineal	18	18	0
Patrilineal	32	7	25
<i>Residence</i>			
Matrilocal	12	10	2
Patrilocal	13	3	10
Other	25	12	13
Total # couples	50	25	25

4.2 Measures of women's situation

In addition to collecting common proxies of women's situation such as educational attainment, economic activity, age at marriage, and age difference between spouses, the Malawi 1 survey included a gender module with potentially relevant proximate measures of women's situation. Table 2 shows the Malawi 1 survey findings for the four sets of proximate measures: 1) women's perceived control over reproductive decision-making (four questions), 2) attitudes about divorce (five questions), 3) attitudes about freedom of movement (2 questions), and 4) women's control over money (three questions). These questions operationalize multiple dimensions of women's situation—decision-making, attitudes about divorce, movement, and economic control (Mason 1986). I included the Malawi 1 gender module topics on the semi-structured GCS interview guide. By collecting data on similar topics, I was able

to compare responses on the Malawi 1 fixed-choice questions to the GCS open-ended responses.

Table 2: *Malawi 1 Women's Situation Variables*

	Total	South	North
Family Planning Decision-Making			
<i>A woman can:</i>			
Do something if husband won't use family planning	58%	60%	55%
Get her husband to agree if she wants to delay next birth	55	37	72
Get her husband to agree if she wants to stop childbearing	35	31	40
Would use secretly if her husband doesn't want to use FP	57	42	72
Divorce Attitudes			
<i>A woman can leave her husband if:</i>			
No Financial Support	27%	29%	24%
Beats Frequently	67	67	67
Suspects Infidelity	64	72	55
Suspects HIV/AIDS	22	35	9
Husband won't allow family planning	22	32	13
Freedom of Movement			
<i>A woman can go without her husband's permission to:</i>			
Health Center	19%	10%	29%
Market	17	5	29
Control over Money			
Woman does income generating work	72%	65%	80%
Woman tells husband about money	85%	85%	86%
(of women who do income generating work)	(722)	(333)	(389)
Average daily income in kwacha	19	11	24
N	999	512	487

The qualitative interviews further explored issues associated with marriage, polygyny, household decision-making, family planning, and HIV/AIDS. I developed the GCS interview guide primarily to investigate questions that initial quantitative findings from the Malawi 1 survey raised about power and authority in gendered relations (Schatz 1999, 2000, 2002). These findings will be discussed in more detail below.

The emergent 1994 ICPD ideology as well as previous demographic, sociological, and anthropological research led the MDICP team to believe that women who report a greater sense of control over their own fertility, who had more liberal attitudes about

divorce, who reported greater freedom of movement, and who had more control over income sources would have greater status, autonomy and power (Blanc *et al.* 1996; Mason 1986; McIntosh and Finkle 1995; Sen 1990; Sen, Germain, and Chen 1994; United Nations 1995). MDICP researchers also expected to find that women in the matrilineal/matrilocal southern site would score higher than women in the northern site on the women's situation indicators (Davison 1997; Dyson and Moore 1983; Peters 1997a, 1997b; Vaughn 1983). Furthermore, although there is limited evidence of a relationship between women's situation and reproductive behavior, the premise for collecting such quantitative data was primarily to analyze relationships between gender variables and fertility behavior as well as other sexual and reproductive health outcomes (Blanc *et al.* 1996; Mason and Smith 1999, 2001).

My analyses of the Malawi 1 survey data show that rather than correlating with one another, each of the four dimensions had different levels and salience in the two regions (Schatz 1999, 2002). In addition, I found that a higher percentage of women in the northern site reported autonomous behavior than women in the southern site on many of the indicators (see Table 2). At the individual level, the relationships between women's situation measures and fertility behavior (e.g., contraceptive use, unmet need) were weak and inconsistent. Neither individual measures of women's situation nor indices of multiple questions (determined by theme and factor analyses) were correlated with fertility behavior. Furthermore, logistic regression analyses, which controlled for demographic characteristics and other relevant variables, revealed few significant results. Among the women's situation measures, only the family planning decision-making index was a significant predictor of fertility behavior. I went on to examine regional differences in women's situation; and, finally, I regressed each of the fertility outcomes on regionally grouped data for each of the women's situation indices in order to assess the regional-level relationship therein. The results showed that women in the southern site did not consistently score higher on these measures than women in the northern site, as I had expected they would. In addition, at the aggregate level, the only consistent significant relationship was between the family planning decision-making index and ever-use of a modern method of contraception. These unexpected results raise many questions about women's situation in rural areas of Malawi, or at least raise questions about the measurement of women's situation in this setting. I decided to explore these surprising findings with a rigorous qualitative study.

The GCS gave me a sense that women in the North and South differed in ways not reflected in the survey results. The in-depth interviews, which explored unanswered questions from the quantitative analysis, further proved this point. These questions included why women in the southern site did not have consistently greater autonomy, status, and power than women in the northern site and why freedom of movement, attitudes about divorce, and control over money did not seem to predict fertility

behavior. I found that the social environments and constraints differ greatly between the two sites, primarily because of differences in residence patterns, kin networks, and physical proximity to busy roads. I also found that, despite considerable variations in social environments, women in Malawi, in both the North and South, were not meek or disempowered. Rather, through the interviews and observing village life, I discovered that women in Malawi find ways to influence and, at times, to manipulate their environment to get what they want.

4.3 Rigorous qualitative data collection

During my time in the field, I trained 16 local interviewers, who then conducted repeated semi-structured interviews with 50 female and 41 male respondents (Note 7). Rather than interviewing respondents myself through a translator, I opted to have the local interviewers conduct the interviews to improve their flow (Note 8). However, having the local interviewers conduct the interviews without my interference made rigorous interviewer-training essential. If the interviewers had not grasped the concepts of the study or had not developed very good qualitative interviewing skills, the project would not have been successful.

The interviewers I hired had worked mainly with MDICP as enumerators for survey data collection. Thus, it was crucial for me to stress the following issues in training: 1) the need to ask questions in a format that did not allow single-word responses, 2) the merits of prompting respondents to elaborate on their answers, and 3) the importance of creating a conversational atmosphere with the respondent to enable the respondent to shape the conversation along with the interviewer (Note 9). During the training sessions, I also focused on the importance of verbal and listening skills, which improve qualitative interviewing. I continued working very closely with the local interviewers during the four days of training and throughout the fieldwork to ensure high quality of the data.

My presence in the field provided me with a unique opportunity to follow up each respondent's first general interview with a more-directed second interview. I was able to get more-complete stories by reading the English transcription of the first interview and creating a unique second interview-guide for each respondent. In this way, I was able to gain additional insight into issues that the first interview did not fully reveal as well as to fill in gaps where an interviewer had missed or misunderstood a question on the first-round interview guide. That two-part interviewing process gave me back some of the control over the interviewing process that I had lost by not conducting the interviews myself.

Once the interviews were transcribed and typed, I inductively coded them following Corbin and Strauss' guidelines—reading the interviews for emergent themes (Corbin and Strauss 1990; Strauss and Corbin 1990). Inductive coding involves closely reading each transcript and creating codes—phrases or words—that capture the idea or theme of a section. About 150 themes emerged while I coded the interviews, and another 350 smaller sub-codes emerged within those themes. I then grouped these into 20 axial-code categories. These coding groups facilitated the analyses of the qualitative data.

5. Comparing, contextualizing, and conceptualizing

The Malawi 1 survey contributes to demographic research on women's situation through proximate measures and by facilitating an analysis of the relationship between those measures and fertility behavior. Alone, however, these data are limited conceptually and in scope. This is not to suggest, however, that these quantitative data have no merit, but that they more-prominently advance research when they are combined with the nested GCS qualitative data. In the following sections, I compare findings from the two data sources, showing how the qualitative data can act as a check for hypothesized and unexpected survey findings. I employ the qualitative data to contextualize the quantitative data, illuminating social practices, beliefs, and norms that shape women's position. Finally, I use the qualitative data to conceptualize better qualitative measures to use in rural Malawi in the future.

5.1 Comparing samples and findings: the advantages of a nested study

Nesting the GCS study within the MDICP had two main advantages: 1) it reduced the non-representativeness of my purposefully selected qualitative sub-sample; and 2) it enabled me to directly compare quantitative and qualitative responses for individual respondents.

5.2 Extrapolating from a small “N”

Table 3 shows traits of women in the GCS sub-sample and the Malawi 1 sample as measured in the 1998 MDICP survey (Note 10). The table shows that there are very few

Table 3: *Women's Malawi 1 Results for GCS Sub-Sample and Malawi 1 Sample*

	GCS Sub-Sample			Malawi 1 Sample		
	Total	South	North	Total	South	North
Demographic Characteristics						
Mean age	33.5	34.0	33.0	31.3	32.0	30.6
Mean number CEB	5.0	5.3	4.7	4.2	4.3	4.1
Mean years schooling	4.6	1.3	7.7	4.1	1.5	6.7
<i>Marital status</i>						
Married	84%	92%	76%	86%	85%	86%
Divorced/Separated	12	8	16	11	12	11
Widowed	4	-	8	3	4	3
Polygynous (of married couples)	100% (41)	100% (21)	100% (20)	100% (879)	100% (447)	100% (432)
Reproductive and Sexual Health						
Ever-used contraception (modern methods)	38%	17%	56%	34%	27%	41%
Secret-use of contraception (of those who ever-used)	11% (18)	0% (4)	14% (14)	13% (314)	11% (133)	16% (181)
Unmet Need (of those who want no more)	71% (21)	70% (10)	73% (11)	73% (302)	75% (130)	71% (172)
Worry about HIV/AIDS (% very worried)	77%	91%	64%	75%	92%	58%
Women's Situation Variables						
<i>Family Planning Decision-Making</i>						
Do something if H won't use FP	63%	65%	60%	58%	60%	55%
Can get way if wants to space	52	26	76	55	37	72
Can get way if wants to stop	38	30	44	35	31	40
Would use secretly if had to	56	30	80	57	42	72
<i>Women can divorce husband if:</i>						
No financial support	13%	9%	16%	27%	29%	24%
Beats frequently	56	52	60	67	67	67
Suspects infidelity	60	78	44	64	72	55
Suspects HIV/AIDS	19	35	4	22	35	9
H won't allow family planning	21	35	8	22	32	13
<i>Can go without permission:</i>						
Health Center	23%	13%	32%	19%	10%	29%
Market	17	0	32	17	5	29
<i>Control over Money</i>						
Woman does income generating	73%	74%	72%	72%	65%	80%
Woman tells H about money (of women doing income gen. work)	86% (35)	94% (17)	78% (18)	85% (722)	85% (333)	86% (389)
Average daily income in Kwacha	20	19	21	19	11	24
N	48	23	25	999	512	487

significant differences between the GCS sub-sample and the Malawi 1 sample (significant differences are in bold italics). I tested differences between the two samples in STATA using unpaired '*ttests*' for the difference between means and '*prtests*' for differences in the proportion of women who answered given questions in the affirmative. The only variables for which there are significant differences between the two samples are the number of children ever born (total samples), mean years of schooling (northern samples), and women reporting the acceptability of divorcing a man who does not support his wife financially (total samples, southern samples). The most-striking differences shown in Table 3 are not those between the GCS sub-sample and the Malawi 1 sample, but, rather, differences between the women living in the southern site and those living in the North. The similarities, as seen in this table, between the two samples are remarkable considering the small sub-sample size and the fact that I purposefully sampled respondents on other characteristics (age, marital status, marriage type, residence, and lineage). The match of the GCS and Malawi 1 samples gives me confidence that I can extrapolate trends and concepts found in the GCS data to the larger Malawi 1 population.

5.3 Comparing quantitative and qualitative responses

The nested GCS sample allows for direct comparison of the survey findings with narratives on similar topics. The qualitative data can then help to clarify the ways in which respondents understood the Malawi 1 questions—i.e., what they heard, how they thought they were responding, and the details missed because of the questions' dichotomous nature. Table 4 provides an example of how the fixed-choice questions differed from the open-ended questions, juxtaposing the survey schedule with the qualitative interview schedule for the freedom of movement questions. Below I compare how women answered these questions in 1998 and 2000.

The narratives that emerged from the GCS questions about freedom of movement revealed that the form of the Malawi 1 questions was problematic. The two freedom of movement questions on the Malawi 1 survey asked specifically about whether or not a woman could go to the health center or the market without her husband's permission. The only possible answers were "yes" or "no." The qualitative accounts, however, make it clear that women make decisions about movement on a case-by-case basis—for the majority of women, a discrete "yes" or "no" answer was insufficient. In both the southern and the northern sites, the decision of whether or not to ask permission from one's husband before going somewhere depends on many factors: 1) how urgent the trip is; 2) how far the place is from her home; 3) how long the trip will take; 4) how clear the purpose of the trip is; 5) if her husband is around or not, and if leaving a note

is sufficient notification or not; or 6) if she needs/has the money needed for the trip. Women may take all or some of these factors into account when determining whether or not to ask their husbands for permission before going somewhere.

Table 4: *Differences in Quantitative and Qualitative Questions*

	Malawi 1 Survey Questions	GCS Qualitative Questions
Freedom of Movement	Is it acceptable for you to go to the local market without informing your husband?	What kinds of things do you need your husband's permission to do? Can you give me an example of a time you asked his permission to do something?
	Is it acceptable for you to go to the local health center without informing your husband?	What about going places? What places do you need his permission to go to? What about places that you just tell him before going? What places are okay for you to go on your own? What places do you go together? What happens if you don't ask permission or tell him before you go? Can you tell me about a time this happened?

Taking advantage of the nested GCS sample, we can look at a couple of examples of women who reported seemingly contradictory responses between the survey and the qualitative interviews. For example, Lyness, a 22-year-old mother of two from the northern site, reported on the Malawi 1 survey that she could go to neither the market nor the health center without her husband's permission (Note 11). In 2000, in the in-depth interviews, it became clear that there *are* times when she goes places without first getting her husband's permission:

[There are] many things [that I do only after telling my husband]. Like business issues, I need to tell him I want to do such-and-such a business. If there is money needed to buy *relish* [vegetables], going to the maize mill, well, I tell him [that I need money]. [Other things I do without telling him like] buying relish, if there is money already, I go on my own. Whether I need soap and I have the money, I just go on my own (113002, North 2000).

Sometimes Lyness does ask permission or informs her husband before going places—this may take the form of asking for money to go to the market or maize mill. At other times, particularly if she already has money, she goes on her own; that was not clear from her survey responses.

Emily is another respondent who reported in 1998 that she would not go to either the market or the health center without her husband's permission. Emily lives in the southern site; she is 43 years old and has five children and one co-wife. Despite claiming in 1998 that she cannot go places without her husband's permission, she related the following story in 2000:

The first time we separated [it was] because of a trip. We had a women's [church guild] trip to Monkey Bay [~100 km away], and we all contributed money for the trip. When I told him [I was going], [he did not want me to go]. But, I just went there on my own wish, and when I came back, I found him gone to his first wife with his belongings... And I just told myself to let him go, if he needs me, he will come back... Then after a week, I saw him coming. I greeted him and he said, 'I have come as you are my wife.' And I said, 'I thought you would not come again.' I accused him of separating despite the fact that I had gone to listen to God's words and not just anywhere. He said, 'Okay, it was just a mistake,' and that he would not do it again. Then we continued staying together (9011, South 2000).

The story that she told in 2000 demonstrates that she did in fact ask her husband for permission before going on this trip, which took her much farther than either the local market or health center. When her husband refused permission, however, she decided to go anyway. Her actions led to a short marital separation, but when her husband returned, it was he, not she, who apologized.

Nearly all of the women who reported on the Malawi 1 survey that they *could* go to the health center and/or the market without permission also gave less-definitive answers about movement in the qualitative interviews. In 1998, Rose, a 39-year-old married woman with five children from the North, said that she can go to both the health center and the market without asking permission. When asked in the GCS interview what would happen if she went somewhere without first asking her husband, she said, "Then we could not agree. When I am going out, I have to inform him. If I don't, then I would be annoying him. He would ask me why I do that" (112011, Rumphu 2000). However, she went on to say that there are places that she can go and only inform her husband on her return. For example, she told the following story: "I remember one time I went to Mhuju [nearby trading center] to get my dress at a tailor when [my husband] was out... When I came back, he asked me where I had gone. 'Why did you not tell me you were going away?' Then I told him that I went out

because he was away” (112011, Rumpho 2000). Rose’s examples as well as the earlier narratives show that women may perceive a need to ask their husbands for permission before going places, but that, in actuality, their decision to seek or not to seek permission before going somewhere depends on the circumstances of the situation.

Unfortunately, it is not possible to conclude that the quantitative and qualitative results are systematically opposite of one another. Instead, the qualitative interviews exposed that decisions about movement are situational. From the qualitative narratives we *can* see that the Malawi 1 freedom of movement findings can be misleading. Conducting in-depth interviews with a sub-sample of the Malawi 1 sample enabled me to compare not only general qualitative and quantitative responses, but also responses by individual respondents. The qualitative responses showed that women, regardless of whether or not they reported in 1998 that they could go to the market or health center without asking permission, were actually making decisions about going places on a case-by-case basis and were weighing a number of factors before making a decision to go somewhere. Thus, in 1998, the responses to these fixed-choice questions likely depended on the particular situation the respondent was recalling. This knowledge can help demographers to construct a more-precise quantitative instrument by clarifying a need to direct respondents to discuss a specific time the event occurred (e.g., the last time) and probing for factors that contributed to the final decision.

5.4 Contextualizing quantitative data

The questions on the Malawi 1 survey that measure each of the women’s situation dimensions are helpful in revealing aggregate levels of these measures, but they cannot fully address *how* families make decisions about contraceptive use, divorce, physical mobility, and money. The qualitative data help to contextualize these issues as well as to expand the understanding of how each of these is operationalized in the local context. The GCS data can help to contextualize Malawi 1 survey data by revealing reasons for unexpected results, offering multiple perspectives and explanations about each issue, accounting for the processes and mechanisms by which decisions are made and opinions are formed, and providing a thick description of the local environment. All of these provide grounding to the survey data and depict in more-nuanced detail the world in which the Malawi 1 respondents live.

5.5 Unanticipated differences, contextualizing unexpected findings

In 2000, while spending time traveling from my accommodations in each site to the field, I became acutely aware of social and physical differences between the MDICP northern and southern sites (Note 12). Although these areas are quite similar in certain ways—both are about 25 kilometers from a town, and none of the residents in either site has access to amenities such as running water or electricity—the two sites differ greatly in terms of social and physical layouts. The ability to monitor one’s spouse, or wife in particular, is very different in the two sites for two reasons: 1) social structure and residence and 2) physical closeness to a main road. These differences shed light on the unexpected quantitative results that showed that a much-higher percentage of women in the northern site ranked high on the freedom of movement measures than women in the southern site (see Table 2 above). The qualitative interviews with both the women and their husbands also support the findings that contextual differences drive the quantitative results rather than differences in women’s situation per se. It could alternatively be argued that these cultural differences influence and shape women’s situation (Jejeebhoy 2000; Jejeebhoy and Sathar 2001; Morgan *et al.* 2002).

The sites’ proximity to a main road or trading center is also an influence on the differences between the North and South in women’s freedom of movement: the southern site encircles a trading center; in the North, the majority of Malawi 1 respondents live several kilometers from a main road. Thus, in the South, the “market” and “health center” are along busy main roads where women are outside of their village-environment. In the North, the “market” and “health center” are more contained within their communities. Partly because of those differences, mobility has a different meaning or weight in the two sites.

Another factor affecting women’s movement differently in the two sites has to do with the ability of the husband’s family members to monitor women’s movements. This distinction is mainly a function of social structure—i.e., who lives around the couple and helps the man to monitor his wife’s movements. In the northern site, married women usually live among their husbands’ kin. In the southern site, there is much-more fluidity of residence, but many of the married female respondents live among their own kin. Having the husband’s kin, in addition to the man himself, living in the area may increase a family’s ability to monitor a woman’s movements and, thus, effectively increase her freedom to move within a contained area. For example, if a man’s kin are dispersed throughout a village, they can keep track of his wife’s movements; thus, his wife may be able to move freely throughout that village without arousing suspicions of misconduct because her husband’s relatives know where she is. In future survey rounds, these issues of where services are situated and the ability of kin to monitor a woman’s movement can be constructed as variables and added to the survey instrument. Once

quantified, it would be possible to control for these issues to get a more-nuanced sense of women's freedom of movement.

5.6 Multiple perspectives, emerging meanings

Men's role in shaping women's situation, especially within the context of the couple's relationship, necessitates the integration of men's opinions about women's status, autonomy, and power with women's views on those topics. Because men play an equally important role in the social construction of gender, men's narratives provide a significant piece of information missing from the Malawi 1 study (Note 13). In addition, because women's situation is primarily about male-female relationships of power and authority, effectively measuring concepts such as freedom of movement requires a ruler against which to assess women's freedom of movement.

The qualitative data also revealed that men often need to ask their wives' permission or inform their wives before going places. Joseph, a 62-year-old man, is living with his wife and five children on her family's property. He divulged why it is important for him to check in with his wife before going somewhere. "I tell her about everything that I want to do. Even if I want to go and visit my friend, I tell her so that she will know where I am in case she needs me" (9524, South 2000). Sentiments expressed in the northern site are not very different. Bright is in his early-40s; he lives with his wife and their four children on his family's land. He differentiated between needing to 'beg permission' and 'informing' his wife of his comings and goings:

[I am] not necessarily begging for permission but informing her—say I am going to see my friends. Then she can ask if she wants to know where I am going, to see my sister or anyone. ...[I inform her] because when I go there, she knows that I am going to see my sister; there is no reason for begging her permission. ...[I go without asking permission] when I go out walking to pass hours away where I know that I would be back in a short time. But when I know I am going to spend a night there, I have to bid farewell. ...[I bid farewell] so that my spouse knows where I have gone. If I go without telling her, she would be looking for me (141515, North 2000).

From these excerpts, we learn that men too are constrained by needing to inform their wives before going places. This supplemental knowledge about the system of informing one's spouse and the two-way restrictions on physical mobility redefines how the researcher understands "asking permission." For both men and women in this context, the need to "beg permission" or "inform" one's spouse seems to be more about courtesy between spouses than about autonomy. Additional questions about men's movement

could be added to future quantitative instruments to permit a comparison between men and women's mobility.

MDICP adapted the freedom of movement questions from the Status of Women and Fertility (SWAF) Project conducted in five Asian countries (Note 14). One reason that these questions may not have worked as well in Malawi is that, in general, women's movement is not as restricted in Malawi as it is in Asia and the Middle East (Caldwell, Caldwell, & Quiggin 1994). In Malawi, as in many other parts of Africa, women are present in public spheres in all capacities—working as market women, traveling on public transport, walking along the main roads. Although the matrilineal southern region is largely Muslim, Muslim women there are not restricted by rules of *pardah*. In both the North and the South, it is common to see women walking to and from the market, carrying children on their backs along the main roads, and gathering for special programs at local maternal and child health clinics. Thus, rather than asking women if they were allowed to go to certain places alone, as the SWAF survey had, the Malawi 1 survey asked women if they have to get their husbands' permission to go to the market and local health center. Despite the attempt to contextualize the questions, it seems that further contextualization and improvement are needed.

5.7 Processes and mechanisms

Qualitative inquiry provides the opportunity to record the negotiations by which decisions are made within a household rather than providing just the final result. A good example of negotiation processes that the GCS data picked up has to do with the difficult subject of contraceptive use. The qualitative data show that decisions about family planning use do not fall into easily defined categories such as “woman decides,” “spouses agree,” or “husband decides.”

Men from the southern site stressed the importance of families communicating about family planning before using it. Michael stated his belief by saying, “Yes, family planning is about the husband and the wife. If the wife wants to use it, she has to tell her husband that she wants to use it and not do otherwise” (6507, South 2000). When asked what a wife should do if her husband refused her request to use family planning, he responded:

If the husband has refused, then even if the wife started using it secretly, then there can't be a problem since the husband was told but he refused to give the wife an okay. [If the husband finds out] there it can be for the two of them discussing and agreeing what to do, but, according to my own opinion, I think the husband is the one who can be wrong because, as I have already said, women

are the ones who feel the delivery so it's at least better to consider them (6507, South 2000).

Although Michael continued to highlight the need to “discuss and agree,” he placed blame on the man in this scenario. His openness to a woman using family planning secretly reinforces an idea that arose often in the qualitative narratives: because it is women who suffer, they should decide what is best in terms of contraceptive use.

Although women are the ones who “suffer” during childbearing, many women do seek their husband's approval to use contraception. This is often a protracted process. Abigail, a 40-year-old woman from the southern site who has six children, claimed that it took her more than five years to convince her husband to let her have a tubal ligation. When she first returned from the hospital after the birth of their last child, she asked him about it frequently. However, her husband wanted another child, so she “let him do what he wanted” (9024, South 2000). She did not actually have another child during that time, however, because she “stayed for a long time using the injection as a form of spacing, not to stop” (9024, South 2000). After several years, she asked her husband again whether he wanted her to become pregnant, which would have necessitated her stopping use of the injection; his response was, “I will answer you later,” postponing the decision again. After years of continually bringing up the idea of tubal ligation, Abigail finally succeeded in convincing her husband to allow her to have the operation. When asked how she finally convinced him, she said:

I was bored [unhappy] with his refusal and one day I told him, “Because you want me to still bear children, I am accepting what you want. But when I just have a child I do not feel well.” And, I just told him, “Everything you want, I am going to do. But, you should know that, when I get pregnant and have a child, I might die and leave a little child with you. Then you will be in trouble because caring for a little child is difficult for men. I will die while thinking that I am dying because you didn't want to consider my request.” (9024, South 2000)

In 1998, Abigail said that she *could* do something if her husband did not want her to use family planning and that she *could* get her own way if she wanted to stop childbearing. Clearly, although she did eventually get her own way, it took many years for her to convince her husband to allow her to do so.

The above accounts reveal some of the ambiguities concerning negotiations about contraceptive use that were not available in the survey findings. In addition, the qualitative data reveal the existence of other participants who are petitioned for, and give advice about, childbearing and family planning use. Men and women related getting information about modern methods from the radio, health-care workers, friends, and relatives; and this information often influenced the decision-making process. Some

of these sources encouraged further communication between spouses, while others encouraged women to make decisions on their own (Note 15).

Some respondents observed that some women are persuaded to use *kulera* [family planning] secretly by other women, clinic workers, and relatives. One man from the northern site complained to the interviewer about this outside pressure:

At the clinic, they teach women that they have the right to [secretly use *kulera*]. But because this involves two partners, the husband would ask why she has started this. They need to agree to use. ...[If I found out my wife was using secretly], I would criticize her on why she didn't tell me so that I should not work in vain [i.e., having sex without being able to impregnate her] (141515, North 2000).

This respondent's objection is partly attributable to the fact that a husband should be part of the decision-making process about contraceptive use. However, he also joked that he did not want to be having sex "in vain." He wanted to know when sex was reproductive and when it was simply recreational.

Interestingly, a woman from the northern site told a different story about what women hear at the clinics:

I don't know anybody [who has used secretly]; that is not what we are taught at the clinic. We don't have to practice family planning secretly because your marriages may end if your husbands find out. ...[My friends and I] agreed that it was a good idea to tell our husbands before we do anything of this nature in order to make our marriages strong forever (133010, North 2000).

In this respondent's experience, the clinic workers encouraged women to tell their husbands before they use family planning. She and her friends thought this was sound advice that would help make their marriages stronger. This woman's survey responses in 1998 reflected the same sentiment: she said that she *could not* do anything if her husband refused to let her use family planning and that she *would not* use family planning secretly.

Women also told stories about seeking help in the negotiation process. In the narrative of Angela, a woman from the southern site, a family planning advisor visited her and her husband. This advisor helped them to come to the decision as a couple to use family planning:

I started family planning in October last year ...[My husband] gave me permission. The family planning advisor had come to ask him what he thinks about family planning. And, the advisor said we were grown people and why

couldn't we stop [having children]. We discussed until my husband thought that it was indeed better that I should rest from giving birth. ...And the advisor gave me a letter and I went to family planning clinic (9006, South 2000).

Angela felt that she had to get her husband's permission before using family planning. She said, "It is not right just to go without getting permission. But if he accepts, [you can use it]" (9006, South 2000). It also seems that the family planning advisor required her to discuss this matter with her husband before s/he would send Angela to the clinic with a letter for family planning. Despite the input of the advisor, the original idea and impetus for the conversation was Angela's. When asked who brought up the issue, Angela said, "It was me. [My husband] did not say anything. He just accepted" (9006, South 2000). In this case, Angela brought up the topic but relied on the outside influence of the clinic advisor to negotiate the particulars of the decision with her husband. Interestingly, in 1998, Angela reported that, although she *would not* use family planning secretly and *did not* feel she could get her way if she wanted to stop childbearing, she *did* feel as if she could do something if her husband refused to let her use family planning. She also felt that she *could* get her way if she wanted to space her births. Here we learn that the "something" she could do to get her way in such a situation was to involve an outsider to help negotiate.

It becomes clear through the qualitative data that negotiations about family planning use are not straightforward, but are likely to be multi-faceted and complex. The qualitative data largely support the general findings of the quantitative data on family planning decision-making. Both data sources show that women often feel that they can do something if they want to use family planning—e.g., enlist the help of outsiders. In addition, both qualitative and quantitative data support certain differences. They include that women in the southern site feel empowered to make decisions about both spacing births and stopping childbearing, whereas women in the northern site are more likely to claim a right to making decisions about spacing than about stopping. Finally, both data sources support the idea that secret use is a real and viable choice for many, but not all, women when other strategies do not work. Each data source has one advantage that the other does not. The qualitative data complement and supplement the quantitative data by providing narratives of the processes by which certain decisions are made. The narratives illuminate the multi-staged, often protracted, negotiations between spouses as well as the negotiations that involve other participants who influence decisions about family planning use. The quantitative data facilitate examining correlations between those concepts and reproductive behavior at the aggregate level, which is difficult to accomplish with the qualitative data alone.

6. Conclusions: using qualitative data to ask better quantitative questions

Demographers are interested in modeling the relationship between women's situation and fertility-related behavior. Current demographic research attempts to measure women's situation by quantifying concepts such as status, autonomy, and empowerment. Transforming these abstract concepts into concrete survey questions with quantifiable responses is perhaps the most daunting task before demographers. Ethnographic data are an underused resource. By nesting the GCS qualitative work in survey research, I retained the breadth and generalizability of the Malawi 1 survey data, but gained rich nuanced information about gender and context in rural Malawi. In my case study, the qualitative data supplement, but do not replace, the quantitative results. I have shown that one can use the qualitative data to compare findings, contextualize results, and help to conceptualize women's situation in the rural Malawian context.

The Malawi 1 survey questions, to be useful for statistical analysis, necessarily constrained the type and number of responses that a respondent could give to a question. In the semi-structured interviews, however, respondents were able to talk freely about the Malawi 1 survey gender module topics as well as about a number of other issues associated with the local gender context. The respondents could emphasize the aspects of those subjects that were most relevant to their own lives rather than have the quantitative researcher presuppose appropriate measures of women's status, autonomy, and power. Although not the only goal, the qualitative data can help demographers to find ways in which to improve the survey instrument in future iterations.

Throughout this paper, I have referred to a few ways in which the gender module of the Malawi 1 survey could be improved. The concept of women's freedom of movement in the Malawian settings would be better-specified in two ways. First, to control for differences in community layout and kin structure, there should be additional questions that measure the distance to the market/health center and kin's ability to monitor women's mobility. Second, the questions should refer to the last time the respondent went to the market/health center and should ask for the factors that led to the decision to ask permission or not; these should replace the more-generic questions that were asked in 1998.

Adding questions about women's situation to men's questionnaires is another way to improve what we can learn from survey data. This may be in the form of asking men about their opinions of women's behavior and gender norms. It can also extend to asking men about their own behavior - e.g., their freedom of movement - to serve as a ruler against which to measure women's comparative status, autonomy, and empowerment.

The family planning decision-making survey questions seemed to parallel what we learned through the qualitative narratives. One improvement to these questions, however, would be to somehow include other possible sources of influence and intervention in the decision-making process, recognizing that men and women do not make these decisions in a vacuum. It is important to recognize the limitation of the scope of these questions and to continue to collect qualitative narratives to contextualize and complement them.

Another important issue that the qualitative data raised that I have yet to discuss has to do with questions that allowed for respondent interpretation of meaning. For example, the qualitative data revealed that responses to at least one of the divorce questions may have depended on how respondents interpreted the question. In 1998, only about a quarter of the women reported that it was permissible to leave a man who did not support his family financially (see Table 2 above). Nevertheless, nearly all of the female, and many of the male, respondents mentioned this reason for divorce spontaneously during the in-depth interviews in 2000. The difference may have reflected interpretation. In 2000, women said they would tolerate a man who actively sought an income, but found none, but that a man who squandered the family's money on beer and girlfriends could be divorced. It is unclear whether all respondents understood this question in the same way in 1998. To be sure that all respondents interpret such a question in the same way in the future, it may be better to ask a series of questions: 1) Can a woman divorce a husband who is unable to find an income? 2) Can a woman divorce a husband who has squandered the family's money on beer? Finally, 3) Can a woman divorce a husband who has squandered the family's money on girlfriends?

Although not the focus of this paper, one way in which qualitative data can improve the survey is by adding new questions on emergent themes—inductive qualitative inquiry can reveal new topics of research on women's situation. These open-ended responses from narratives can lead researchers to unanticipated answers, understanding, and further questions. The qualitative data may also illuminate concepts and areas of women's situation that are too complex to be measured by fixed-answer survey questions. Moreover, they may shed light on new topics associated with women's situation that will better-capture this concept and its relationship to reproductive health outcomes.

It is crucial for demographers to use qualitative data to improve the quantitative instrument rather than as a stand-alone data source. Just as the quantitative data may be insufficient in certain areas, qualitative data alone cannot answer demographers' questions about women's situation and its relationship to fertility behavior. Although qualitative data provide a more-nuanced picture of women's situation, and may even be "more accurate" in certain ways than the quantitative data, qualitative data are also

somewhat intractable. It is much-more difficult to try to correlate qualitative measures of autonomy to reproductive outcomes than to do so with survey data. In addition, the small “n” of qualitative data does limit the macro-level processes one can explore. Thus, to get a full, rich picture of women’s situation and its relationship to reproductive behavior, it is necessary to integrate the two data sources while recognizing the weaknesses and exploiting the strengths of each.

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Notes

1. For more information on the 1998 MDICP survey—sampling, data collection, and map—see Watkins et al. in this volume, and www.pop.upenn.edu/Social_Networks/; also see Schatz 2002.
2. The omitted site in the central region, Mchinji, is less-easily categorized in terms of lineage and residence than the other two sites. Historically, the Chewa, the ethnic majority in the central region's site, were matrilineal and matrilocal, but, over time, the lineage and residence patterns have become less rigid. Because one focus of my field research was to compare how social systems mediate the relationship between women's situation and demographic outcomes, the North-South comparison was more salient. In Schatz 2002, I show the problems inherent in these concepts and the dichotomies between them.
3. Principal Investigator: Enid Schatz. The Mellon Center Grant to the University of Pennsylvania for Training and Research in Developing Countries funded the pilot study in 1999. Two sources supported the larger study conducted in 2000: an extension of the Mellon grant and partial support from National Institute of Health grant RO1 HD37276-01 on "Social Interactions and Reproductive Health," Susan Watkins and Jere Behrman principal investigators.
4. I interviewed only the sampled wife and her husband in polygynous unions. Each widowed or divorced woman counts as a "couple."
5. In the table, all of the variables are measured as reported in 1998. For several couples, one of the following changed between 1998 and 2000: marital status, marriage type, or residence. See Schatz 2002 for details on these changes.
6. In 2000, only one respondent refused to be interviewed. More frequently, however, I could not find respondents because they had moved or because I could not trace them with the names they gave to MDICP in 1998. When I could not find a couple or interview them for some reason, I replaced that couple with another couple that was as similar as possible in terms of age, marital status, marriage type, lineage, and residence.
7. In the southern site, the team included the following interviewers: McDaphton Bellos, Davie Chitenje, Fanizo George, Hazrat Hassan, Esnat Sanudi, and Rosemary Sapangwa. In addition, Matthews Howard helped with transcription. In the northern site, the team included Harry Mkamanga (field supervisor), Praise Chatonda, Bertha Kalua, Jenala Kayira, Enala Mnthali, Ziveza Nkana, Joseph Nyirenda, Kenneth Nyirenda, and Jones Shange. The teams conducted all of the

interviews in the local languages (chiYao or chiChewa in the South—depending on the ethnic group and native language of the respondent—and chiTumbuka in the North) and taped the interviews on audiocassettes. The first interviews lasted between 45 and 150 minutes, depending on the interviewer and respondent. The second-round interviews were generally shorter than the first-round interviews. Whenever possible, the interviewers translated and transcribed the interviews they had conducted themselves. By transcribing their own interviews, they could add notes about what was happening at different points during the interview as well as write notes in the transcript explaining what a respondent was talking about in a situation where the respondent left a sentence unfinished or used an idiom. On average, it took each interviewer two-to-three days to completely translate and transcribe each interview into English. I went over each transcript with the interviewer who transcribed it. These transcriptions were later typed and analyzed using NVIVO qualitative analysis software.

8. I attempted to conduct interviews through a translator during my pilot study and found that the resulting interviews were choppy and had major gaps because responses were summarized by the translator and because of subsequent insufficient probing.
9. For a discussion of the training of local interviewers, see Schatz 2002.
10. Table 3 shows Malawi 1 statistics for the southern and northern sites as well as combined results from the two sites. In Table 3, CEB=children ever born, H=Husband, FP=family planning. A similar table for male GCS and Malawi 1 respondents can be found in Schatz 2002. The male comparison is also marked by more similarities than differences between the two sample populations.
11. Respondents' names have been changed. The numbers after the quotations refer to the respondent's identification number in the Malawi 1 survey.
12. While MDICP was in the field in 1998, the project rented two Land Rovers to which the team had access. When I returned to conduct my own project, renting a vehicle (and driver) was too expensive, so I commuted from my hotel to the field using "local transport"; this experience gave me a chance to talk to a lot of locals as well as to get a better feel for the area.
13. In retrospect, the MDICP principal investigators claim that directing the "gender questions" toward female respondents only was an oversight, not a purposeful strategy.

14. For more information on the Status of Women and Families (SWAF) project, see <http://www.pop.upenn.edu/swaf/>. For a discussion of the origins of the SWAF questions, see Ghuman, Lee and Smith 2001.
15. The Malawi 1 questionnaire did include questions about whom one talked to about family planning, although not specifically about who influenced them. These questions have been statistically tested to show that network partners influence family planning behavior (Behrman, Kohler and Watkins, 2002a, 2002b; Kohler, Behrman and Watkins, 2001).

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