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Gender Differences in Economic Support and Well-Being of Older Asians

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Abstract

This report provides a comprehensive analysis of gender differences in economic support and well-being in eight countries in Southern and Eastern Asia (Bangladesh, Malaysia, Indonesia, Singapore, Thailand, Vietnam, Philippines, and Taiwan). We examine multiple economic indicators, including sources of income, receipt of financial and material support, income levels, ownership of assets, and subjective well-being. Results show substantial variation in gender differences across indicators and provide an important qualification to widely held views concerning the globally disadvantaged position of older women. Whereas men tend to report higher levels of income than women, there is generally little gender difference in housing characteristics, asset ownership, or reports of subjective economic well-being. Unmarried women are economically advantaged compared to unmarried men in some respects, in part because they are more likely to be embedded in multigenerational households and receive both direct and indirect forms of support from family members.

Introduction

Much recent concern over population aging has focused on the assumed social and economic vulnerability of older women (e.g. INSTRAW 1999; UN 2002). Yet, little systematic research on these issues is available for developing countries where most of the world's elderly now live. The present study provides a comprehensive and systematic analysis of gender differences in economic support and well-being of older adults in Asia. The data are from recent representative surveys in eight countries in South, Southeast and East Asia (Bangladesh, Indonesia, Malaysia, the Philippines, Singapore, Taiwan, Thailand, and Vietnam) and focus on persons age 60 or over. We examine multiple dimensions of economic status and well-being, including sources of income; receipt of financial and material support from others; indirect support; income levels and ownership of assets; and satisfaction with or sufficiency of income.

The selected countries provide an interesting set for comparison for several reasons. As in most of the developing world, the family remains the primary source of support and care for elderly members in each of these countries. At the same time, these countries are characterized by distinctive cultural and family systems, contrasting political contexts, varying forms and extents of formal assistance, and different levels of socioeconomic development, all of which may influence gender differences in sources of economic support and overall economic well-being among older adults. The diversity of economic levels of these countries is evident from the range in the per capita gross national income in purchasing power parity, which characterize them. Singapore and Taiwan are by far the wealthiest and Bangladesh and Vietnam the poorest. In between, from poorest to richest are Indonesia, the Philippines, Thailand and Malaysia (Population Reference Bureau 2002).

Background

Interest in gender as a theme in aging arises in part from the recognition that women predominate among the elderly. Lower mortality among women has resulted in an imbalance in the sex ratio among older persons in almost all countries, with women outnumbering men particularly among the oldest-old (Gist and Velkoff 1997). The imbalance is less pronounced in the developing world including many countries in Asia than in developed countries, and in at least two of the countries under study (Bangladesh and Taiwan) men actually outnumber women at older ages (Kinsella and Velkoff 2001). Perhaps more important than their overall numerical advantage is the tendency for older women to be unmarried (primarily widowed). In 46 of 51 countries with data on marital status, upwards of 70 percent of men age 65 years or older were married in 2000, compared to 30 to 40 percent of women (Kinsella and Velkoff 2001). This pattern is equally if not more pronounced in most Asian countries. Beyond these demographic dimensions, the growing concern over gender and aging is motivated by a presumed greater social and economic vulnerability of older women compared to men, arising from the fact that, more than for men, women's productive activities are carried out outside the formal economic sector and from pervasive gender inequality in family and community life that is thought to characterize many societies.

The experiences of women throughout the life course differ substantially across societies and are conditioned by many interrelated social and economic institutions. Particularly important is the family which, despite the rapid social and economic change that has occurred, continues to be the primary provider of old-age support in Asia and much of the developing world (see two theme issues of *Asia Pacific Population Journal* published by ESCAP 1992 and 1997; Cowgill 1986; Hermalin 2002; World Bank 1994). At the same time, gender relations within the family and how they interact with these informal systems of intergenerational support vary across countries and regions within Asia. Thus sons and daughters (or son- and daughter-in-laws) have different roles in the support system, and mothers and fathers may likewise differ in the extent to which they benefit from them. Gender systems also influence the relative access of older men and women to family assets both before and after the death of a spouse.

Karen Mason (1992) contrasted two major types of family systems that condition such support in Asia: the patriarchal/patrilineal systems found in East Asia and the northern tier of South Asia, and the bilateral systems found in Southeast Asia and the southern tier of South Asia. The former stress the responsibility of sons (and their wives) for caring for and supporting parents, while under the latter there is greater gender equality and daughters occupy equally or more important roles in contributing to the well-being of parents. Mason theorizes that within bilateral/egalitarian systems, elderly mothers are likely to receive as much support and care as elderly fathers do, while in patriarchal/patrilineal systems, the position of elderly women is far less secure than that of men. These contrasting implications for the two sexes are thought, in turn, to arise mainly from gender differences in ownership rights and control of property and other productive resources associated with the two family systems. Indeed, women in many parts of Southeast Asia (e.g., Indonesia and Thailand) have had a long history of active participation in the labor force, hold basic property and inheritance rights, and have relatively high status compared to their counterparts in South and East Asia (Rudkin 1993; Winzeler 1982).

While these theoretical arguments remain cogent, there are growing indications that large gradients exist on either side of this family system divide. For example, while older women and men are equally likely to receive financial support from children and other relatives in the Philippines and Thailand, older women are more likely than older men to receive such support in Taiwan and Singapore (Biddlecom, Chayovan and Ofstedal 2002). This suggests that, at least with respect to this form of support, women in the patriarchal societies of Taiwan and Singapore are not disadvantaged relative to men. In addition, focusing on the providers of support, both sons and daughters are actively engaged in support exchanges with their older parents in the patriarchal societies of Taiwan and Singapore, as well as the more bilateral societies of Thailand and the Philippines (Ofstedal, Knodel and Chayovan 1999). Coresidence patterns also suggest some flexibility with regard to gender of the coresident child, particularly where coresidence with unmarried children is concerned, and there is considerable inter- and intra-country variation even with respect to coresidence with married children regardless of which family system predominates (Friedman et al. 2003; Knodel, Chayovan and Siriboon 1992; Ofstedal, Knodel and Chayovan 1999).

With regard to economic well-being, the evidence is somewhat mixed. Hermalin and colleagues (Hermalin, Ofstedal and Mehta 2002) examine several economic indicators (e.g., income level, major source of income, ownership of assets, perceived adequacy of income) and find that that, while older women exhibit higher relative risks than men on some indicators of economic well-being in the four countries studied (Philippines, Thailand, Taiwan and Singapore), this is not a uniform phenomenon and, where it does occur, the excess risks faced by women tend to be fairly modest. Similar variations across economic indicators were observed in more detailed studies of gender differences in Thailand (Chayovan 1999; Sobieszczyk, Knodel and Chayovan 2003). Interestingly, when key demographic and socioeconomic characteristics are controlled, older women in Taiwan and Singapore face no excess risk on number of economic disadvantages compared to men; in contrast, women in Thailand and the Philippines experience larger numbers of economic disadvantages than their male counterparts (Hermalin, Ofstedal and Mehta 2002). This latter finding again challenges the notion that the position of older women in predominantly patriarchal societies is more precarious than that of older women in bilateral societies. On the other hand, a detailed study of Vietnamese elders finds that unmarried women in Northern Vietnam are particularly disadvantaged with respect to familial support, and suggest that this may be related to the relatively entrenched patriarchal and patrilocal traditions practiced in that region (Friedman et al. 2003).

Besides non-formal support systems, the expanding if still limited state sources of support are also conditioned by societal gender systems. For example, past sex differentials in employment affect the extent to which men and women receive pensions or other retirement benefits. Views of gender embedded in state institutions also influence the entitlement of older men and women to welfare or other forms of state assistance. These then contribute to gender differences in economic well-being, although substitutions of family for formal support could mitigate their impact.

As has been argued previously (Chayovan 1999; Hermalin, Chang and Roan 2002), economic well-being is a multi-dimensional concept, and focusing on one indicator (e.g., individual income) can give a misleading picture. First, there may be genuine variation across different dimensions of economic well-being (e.g., an individual with low personal income may live in a household with substantial income, assets, or possessions). In addition, some dimensions may be particularly difficult to operationalize and measure, especially in developing and/or largely agricultural settings (e.g. individual income may not reflect all income benefits from sharing household income but household income also does not indicate how much it benefits specific persons). Finally, economic well-being depends not just on monetary resources, such as earnings or interest income, but also on non-monetary resources, such as the presence of other family members and one's own ability to perform tasks that generate earnings (Arber and Ginn 1991; Danigelis and McIntosh 2001).

In the present study, in order to represent the complex and multidimensional aspect of economic well-being, we draw on a number of indicators including both objective and subjective measures. These include sources of income, income level, indirect financial support and receipt of financial and material support from children and others, ownership of assets and household possessions, housing characteristics, and satisfaction with or sufficiency of income.

Data, Methods and Measures

The names of the surveys from the eight Asian countries on which our analysis draws and their key design features are presented in Figure 1. All but one were conducted between 1995-1997; the remaining survey (in Malaysia) was conducted about a decade earlier in 1988. All are either nationally or regionally representative, based on multi-stage, stratified sample designs and contain reasonably large samples. The analyses presented here are limited to respondents age 60 or older. Two of the surveys are based on regional, as opposed to national samples. The Bangladesh survey is based on a representative sample of the Matlab region in rural Bangladesh. In the case of Vietnam, our analysis is based on two mutually coordinated regional surveys, one for the Red River Delta and the other for Ho Chi Minh City and surrounding provinces. For the purpose of our current analysis we have combined the two samples and present only a single set of results.

The surveys in the Philippines, Thailand, Taiwan, Singapore and Vietnam exclusively targeted elderly respondents while those conducted in Indonesia, Malaysia and Bangladesh are broader household surveys that contained a special component for elderly household members. In this latter set of surveys a household respondent provided information on household composition and economic status and background characteristics of household members, and those included in the elderly sample provided information themselves on their own health, economic status, and transfers of financial and material support. The Malaysian survey included interviews with all persons age 60 or over in the household, whereas those in the other countries interviewed only one respondent per household. All of the countries except Singapore obtained an interview with a proxy respondent if the sampled respondent was unable to participate in the interview, but willing to have a family member do the interview on his/her behalf.

Response rates were generally quite high, typically falling in the range of 85-95%. The response rate for Singapore is much lower at 60% (Ministry of Health et al. 1996), but comparisons of the sample with published population estimates on several key characteristics suggest good representation of the sample. Response rates tended to be higher in rural than urban areas, and to some extent, the much lower response rate in Singapore reflects the challenges of locating respondents and obtaining interviews in large cities.

Measures of Economic Well-Being

We examine both all current sources and major source of income as represented in five categories: (1) work, (2) pension/retirement/Central Provident Fund, (3) income from investments, (4)

income from children or relatives, and (5) other. Unless otherwise noted, sources of income include respondent's as well as spouse's income, if the respondent is married. This reflects the likelihood that a married couple jointly benefits from income to either spouse.

For all of the countries except Vietnam we have measures of either the income of the respondent (and spouse, if married) and/or of the total household. The Philippines, Thailand, Taiwan and Singapore surveys asked respondents to report the amount of own and household income received in the year prior to the survey. The Malaysia, Indonesia and Bangladesh surveys obtained amounts separately for each income source, which we summed to obtain the annual total. Most surveys used a two-question sequence to ascertain total income. The first question asked respondents to report a specific amount. For those unable or unwilling to do so, a second question allowed respondents to select from a set of range categories. The extent of missing data on income ranges from 1 percent in Singapore to about 22 percent in Taiwan for individual/couple's income and from under 5 percent in the Philippines, Singapore and Bangladesh to about 36 percent in Taiwan for household income. We present the percent with missing data on income as a separate category. We also show the percent of respondents who report income in the lowest quartile (among those with non-missing responses), or as near to that as allowed by the data. To define the lowest quartile, we first recoded specific amounts into their corresponding range categories, and then combined range categories as needed to cover the lowest quartile of the income distribution.

The following measures characterize the quality of the housing unit: availability of an indoor water source (for some countries this is distinguished for drinking vs. washing water), an indoor toilet, and electricity. We also examine household possessions, which include such things as automobiles, motorbikes, appliances (refrigerator, TV, VCR), air conditioning or electric fans. Assets include more major financial investments, such as ownership of real estate and land (including current residence as well as other properties), business interests, investments and savings, and other valuables (e.g., jewelry).

Indirect economic support is indicated by who pays for most of the household expenses, including such things as food, utilities, maintenance, and rent or mortgage if relevant. The categories include (1) respondent (and spouse) pay most of the household expenses, (2) respondent and spouse share expenses approximately equally with others, and (3) other individuals pay most. A second measure ascertains whether respondents receive accommodation, rationing, or maintenance in kind from anyone other than their spouse. Measures of direct economic support focus on receipt of any money and material goods from children and other family members during the prior year regardless of the frequency or amount.

Finally, the subjective measures of economic well-being employed in the analysis come from questions that asked how satisfied respondents are with their current financial situation, and the extent to which their income is adequate to cover their expenses. If measured accurately, these measures may be the most comprehensive indicators because they allow respondents themselves to take into account all the various components of their economic situation and express the net result as they perceive it (Chan, Ofstedal, and Hermalin 2002). As such they avoid the difficulties of interpretation of many of the other specific measures which often involve ambiguities and substitutability among them.

Although we attempt to select measures that are most comparable across countries, there is variation in the types of measures available, the amount of detail collected, and the specific questions and response options employed. The tables include footnotes to provide more detail on and/or highlight variation in measures across countries. When certain measures are not available for a given country, an entry of '—' is used.

Taken individually, these indicators may imply different pictures of economic well-being for a particular respondent. In addition, low income per se may not reflect economic adversity since the economic need of and demands made on individuals vary. Hence, the use of multiple indicators provides a more comprehensive picture of economic well-being and how it differs for men and women. In addition, the questions dealing with overall perception of income adequacy and income satisfaction presumably take a wide range of considerations into account and, thus, should represent the net result of how they operate within a person's life, making their interpretation more straightforward.

Analysis Methods

Consistent with our primary objective to provide a broad examination of the direction and magnitude of gender differences in economic well-being, rather than to focus on underlying determinants for these differentials, our analyses are primarily descriptive. Most tables represent cross-tabulations of each measure of economic well-being mentioned above by gender. However, as others have emphasized, older men and women differ greatly with respect to marital status, which in turn can have a critical influence on gender differences in economic well-being (Keith 1993). Thus the gender comparisons are presented according to current marital status (married versus not married), as well as for the total sample.

For measures that represent counts, such as the number of different categories of income sources or assets, and number of household possessions, we present the results in the form of ratios, defined as the mean for the group in question (e.g., unmarried women) to the overall sample mean. Given that the number of items included in the count often differs across countries, the ratio provides a simple and effective way to summarize group differences on these measures.

As a final stage of analysis we estimate a set of logistic regression models to assess the association between gender and economic well-being, adjusted for the effects of three key covariates: age, marital status and living arrangements. We also test interactions between gender and marital status to determine whether the effect of gender differs for married and unmarried persons. The outcomes examined in the multivariate analyses include individual (couple) and household income, as well as satisfaction with and perceived adequacy of income.

All analyses are conducted separately for each country and samples are weighted to be representative of the target populations of the surveys. Given differences across countries in the measures employed, it is not possible to compare absolute *levels* of economic well-being across countries. Nevertheless, it is useful to compare the direction and magnitude of gender differences in well-being to determine their pervasiveness across different cultural, political, and socioeconomic settings.

Results

We begin with a brief overview of the older men and women in each country with respect to several key sociodemographic characteristics. As shown in Table 1, the samples are predominantly male in Taiwan (54%), Malaysia (54%) and Bangladesh (57%), whereas they are predominantly female in Philippines (58%), Thailand (55%), Singapore (54%), Vietnam (59%) and Indonesia (55%). There is little difference in mean age for men and women in the samples, and the differences that do appear are not consistent across countries. In addition, for both men and women, the mean ages of the samples are quite similar across countries. The majority of older persons in most countries are married, with the exception of Singapore for which the proportions married versus unmarried are about equal. In all countries marital status varies strongly by gender. For men, upwards of 74 percent are married, whereas for women this figure ranges from 31 percent in Singapore to 56 percent in Taiwan. Although not shown here, the vast majority of both unmarried men and women are widowed, and both divorce/separation and singlehood are quite rare among these cohorts of elderly (less than 5 percent in all countries).

There are strong cross-national variations in education, although these variations do not necessarily correspond with level of social and economic development. For example, the largest percent with no formal education is in Singapore, at present the wealthiest of all of the countries. In contrast, the percentage with primary or secondary education is highest in the Philippines; this is true for men but even more so for women, and there is little gender difference in education levels among Filipino elders. In other countries, men have a definite advantage with respect to education, with much higher proportions receiving both primary and secondary education.

For both men and women the percent currently working varies across countries, with the most urban (e.g., Taiwan and Singapore) showing lower percentages. Work status also varies by gender, with women less likely to be currently working and much more likely to have never worked than men. While these patterns generally hold across all countries, there is substantial variation in the percentage of women who never worked, ranging from over one-half in Singapore to less than 10 percent in both Thailand and

Table 1. Sociodemographic Characteristics

	Philippines	Thailand	Taiwan	Singapore	Vietnam	Malaysia	Indonesia	Bangladesh
Male								
Age (mean)	68.7	68.3	69.0	68.6	69.2	68.5	67.9	67.4
Marital Status								
Married	73.6	83.0	76.7	73.8	85.8	83.6	89.3	90.4
Education								
None	16.9	18.6	24.5	49.7	40.9	32.0	37.9	45.7
Primary	61.4	72.7	44.8	34.9	36.3	59.6	61.0	48.1
Secondary+	21.6	8.8	30.6	15.4	22.8	8.4	1.1	6.2
Work status								
Working	51.4	48.5	30.5	7.3	45.7	47.1	61.9	66.1
Retired	46.8	51.2	67.6	90.9	n.a.	52.9	35.9	33.7
Never worked	1.8	0.3	1.9	1.8	n.a.	0.0	2.3	0.2
Lives with children								
None	27.4	28.1	34.4	18.5	19.7	27.3	30.8	18.7
Married child	37.4	41.9	43.8	32.8	56.6	36.6	13.3	39.4
Unmarr only	35.2	30.0	21.7	48.8	23.7	36.2	55.9	41.9
Female								
Age (mean)	69.8	69.3	69.1	69.8	70.1	68.1	68.1	67.2
Marital Status								
Married	39.9	44.9	56.4	30.9	40.7	35.6	34.5	34.8
Education								
None	15.6	41.4	60.3	81.8	78.5	74.2	76.4	84.6
Primary	66.9	55.5	31.2	13.4	18.1	18.9	23.4	15.4
Secondary+	17.6	3.1	8.5	4.7	3.4	6.9	0.2	0.0
Work status								
Working	27.5	28.9	10.8	1.5	34.6	15.6	27.4	29.5
Retired	51.6	67.0	47.7	42.4	n.a.	64.2	35.5	62.4
Never worked	20.9	4.1	41.5	56.1	n.a.	20.2	37.1	8.1
Lives with children								
None	31.2	29.7	26.3	12.1	24.4	29.2	29.4	27.7
Married child	45.1	46.9	59.5	47.8	57.2	48.7	12.9	58.0
Unmarr only	23.7	23.4	14.2	40.1	18.4	22.1	57.7	14.3
N (unweighted)	1311	4486	3605	4001	1769	613	2508	1531

Bangladesh. This likely reflects societal differences in gender roles and cultural definitions of work, as well as level of industrialization and development. In the less-well off and/or predominantly agricultural societies, women's labor may be needed to contribute to the household economy or assist with the farming.

Lastly, in all countries the majority of elderly reside with a child, most often a married child. Women are more likely than men in most countries to be living with a married child, with the exceptions of Vietnam and Indonesia where there is essentially no gender difference.

Sources and Amount of Income

As a starting point for examining the economic well-being of older men and women, we focus on current sources and level of income. Table 2 presents the percent who report receiving income from each source, by gender and marital status for each country. Because respondents were allowed to report multiple sources, the percentages do not add to 100.

Regardless of marital status, men are more likely than women in all countries to earn income from work and to draw pension or retirement income, although the gender difference in the proportion receiving pension income in Indonesia is quite modest and pension information is unavailable for Bangladesh. Given that men are more likely than women to be currently working, it follows that they are also more likely to be earning income from work. The patterns with respect to pension income are less intuitive. On one hand, women in several of the countries are more likely than men to be retired; thus, assuming equal access to pensions, women should be more likely than men to be currently receiving pension income. However, in many of these countries, pensions are quite limited for the older cohorts, and where available they tend to be linked to jobs in the government and formal sectors (Ofstedal et al. 2002), which are predominantly held by men. Men are also generally more likely than women to earn income from investments, although the differentials tend to be smaller than for work and pension income. In contrast, women are generally more likely than men to receive income from children or relatives, particularly among unmarried persons.

We would expect greater similarity in income sources for married men and women, at least in those countries for which sources refer to those of either spouse. Yet, although the differentials described above tend to be somewhat smaller for married than for unmarried persons, they still exist. There are at least two possible reasons for this. First, given that women typically married men several years older than themselves, the spouses of married women in this age group are older on average than the married men in the samples. This age differential likely accounts for much of the difference between married men and women. There may also be differences in the completeness of reporting by gender; if women are less knowledgeable about financial resources and holdings than are men, they may under-report sources and amount of income and assets.

To measure the dispersion of income sources, we calculate the ratio of the mean number of categories from which respondents in the designated group receive income, divided by the mean number for the total elderly sample. (Note that each category may include multiple sources, however in calculating the ratios we sum the number of categories, not the number of sources.) Ratios above 1.0 thus indicate that persons in the designated group have more categories of income sources on average than the overall sample, and ratios below 1.0 indicate fewer categories on average. Consistent with the patterns noted above, the ratios indicate that men's income is more dispersed across a number of sources compared to women's income, which tends to be concentrated in a smaller number of sources. Two exceptions are Indonesia and Bangladesh, for which the ratios for the total sample are slightly higher for women than men.

Finally, because some elderly still work and have not yet started drawing retirement income, we present the combined percentage of individuals who currently receive pension/retirement income (shown earlier in the table) and who expect to receive pension income at some point in the future, for those countries with the requisite data. Again the gender differential favors men across the board and is even more pronounced than that for current pension income.

Table 2. Sources of Income for Older Respondent/Couple (percent receiving income from each source)

	Philippines		Taiwan		Singapore		Vietnam		Malaysia		Indonesia		Bangladesh	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Total														
Work	73.4	56.8	44.5	30.4	31.5	8.2	45.5	35.1	40.8	13.3	61.9	27.4	56.0	26.1
Pension/retirement/CPF	15.8	10.2	52.0	42.6	10.0	2.7	23.5	9.5	49.3	24.7	11.9	10.1	--	--
Investments ¹	7.3	5.9	24.0	18.7	17.7	15.6	3.1	2.1	27.0	14.6	18.0	18.5	9.7	6.0
Children or relatives	62.0	66.1	58.0	75.9	85.2	96.5	62.7	69.5	48.2	49.5	20.0	27.0	5.6	45.3
Other	--	--	4.6	3.5	1.2	1.1	17.8	24.6	1.1	1.5	18.9	19.7	19.8	24.5
# sources (mean ratio) ²	1.08	0.95	1.03	0.96	1.09	0.93	1.05	0.97	1.22	0.73	0.96	1.04	0.97	1.05
% receiving/expecting pension income	20.5	10.8	61.3	45.3	52.7	16.8	--	--	49.8	25.5	--	--	--	--
Married														
Work	80.5	73.9	50.5	43.7	34.6	8.5	50.7	45.5	43.4	15.9	64.7	33.7	57.2	21.6
Pension/retirement/CPF	16.6	12.3	49.8	45.9	10.1	3.3	25.9	17.6	51.1	22.7	11.6	11.3	--	--
Investments ¹	8.0	7.6	25.4	20.6	18.2	16.0	3.1	2.9	28.7	11.8	18.0	13.9	8.6	5.7
Children or relatives	63.2	62.1	61.8	73.5	87.1	97.7	59.6	64.1	47.5	39.7	18.4	22.6	3.3	46.2
Other	--	--	3.6	3.1	0.1	0.3	16.4	17.3	1.3	21.6	18.7	18.7	20.5	38.2
# sources (mean ratio) ²	1.03	0.96	1.01	0.99	1.06	0.88	1.07	1.01	1.26	0.63	0.92	0.92	0.95	1.17
% receiving/expecting pension income	21.5	12.9	59.8	48.0	55.5	16.9	--	--	51.7	22.7	--	--	--	--
Unmarried														
Work	53.5	45.4	25.0	13.3	22.8	8.0	14.2	28.0	27.6	11.8	38.6	24.1	45.4	28.6
Pension/retirement/CPF	13.6	8.8	59.1	38.3	9.6	2.4	8.8	4.0	40.1	25.7	13.9	9.4	--	--
Investments ¹	5.2	4.8	19.7	16.3	16.1	15.4	2.9	1.5	18.3	16.2	17.5	20.9	20.2	6.2
Children or relatives	58.5	68.8	45.6	79.0	80.0	96.0	81.6	73.2	51.8	54.9	33.2	29.3	26.8	44.8
Other	--	--	7.8	4.0	4.0	1.4	25.8	29.6	0.0	1.4	20.9	20.2	13.2	16.6
# sources (mean ratio) ²	1.02	0.99	1.03	0.98	1.06	0.98	0.91	0.94	1.02	0.79	1.19	1.11	1.13	0.98
% receiving/expecting pension income	17.6	9.4	65.9	41.7	44.9	16.7	--	--	40.1	26.8	--	--	--	--

¹Includes: rentals, savings, real estate, stock, annuity, severance pay

²Ratio of mean number of sources for group to overall sample mean

³For Singapore, income sources refer to respondent only.

⁴For Vietnam, income from farming was partitioned between 'Work' and 'Children or relatives' based on whether or not the respondent reported working in agriculture.

⁵For Indonesia, respondents are coded as receiving work income if they worked during the past week, regardless of whether income was earned from that work.

Table 3 shows the major source of income of elders for the five countries with the requisite data. Since respondents were asked to report only one source, the percentages add to 100 within each panel. Gender differentials are pronounced. In all countries, children or relatives are more likely to be the major income source for women than for men while both work and pension or retirement income are more commonly the major source of men's than women's income. Indeed, in all countries but the Philippines, children or relatives are the most common major source of income for women. For men, work is the most common major income source in the Philippines, Thailand and Taiwan, but in Singapore and Vietnam children or relatives are the most common major source just as they are for women.

The same pattern of gender differences is evident within each marital status group as described for all elders. The only exception is among unmarried Vietnamese elders, where women are more likely than men to report work as the major source and less likely than men to report relatives. In all countries, married persons of each sex are more likely than their unmarried counterparts to say work is their major income source and less likely to report children or relatives as their major source, probably reflecting in large part the generally younger age of married compared to unmarried elders. In general, marital status makes little difference in the percent of either men or women who report pensions as their major source of income. One key exception is in Taiwan, where unmarried men are more likely to receive pensions than married men. This is largely a compositional effect, in that the majority of unmarried men in Taiwan are Mainlanders (soldiers and military officials who fled from Mainland China to Taiwan in the aftermath of the Chinese civil war) and who typically worked in military and government positions that provide pensions. Another exception is Vietnam, where both married men and women are more likely than their unmarried counterparts to report pensions as the major source of income. In Singapore marital status differences in major source of income are less pronounced than elsewhere and children and relatives are particularly common as the major income source for both sexes in both marital status groupings.

Table 4 presents data on income differentials by focusing on the percentage with low individual/couple and household income (defined as being roughly in the lowest quartile). The former is available for only four of the countries but the latter for seven. This percentage is based on non-missing cases; however, we also present the percent with missing values on income as a separate entry in the table. In all four countries with requisite data, women overall are more likely than men to have low personal incomes (together with their spouses, if married) and the gender differences are quite large except in Singapore. These gender differences in personal income likely reflect, at least to some extent, differences in main sources of economic support for men and women. Whereas men are more likely to be working and thus generating income, women are more likely to receive support from children and other family members, which may be in kind and services rather than cash and thus not be reported as income. Interestingly, the gender differentials with respect to *household* income among the seven countries with data are far less consistent. For total elderly, only women in Bangladesh are substantially more likely than men to fall in the low income category. In three others (the Philippines, Thailand, Taiwan) women are modestly more likely than men to be in low income households, while very little gender difference is evident in Singapore, Malaysia and Indonesia. There are further differences in patterns by marital status. For example, married women in Thailand, Taiwan and Bangladesh, and unmarried women in the Philippines and Indonesia are at a modest disadvantage relative to unmarried men. However, for the remaining countries and groups, there is either little gender difference or else men are more likely to be in low income households than women.

Table 3. Major Source of Income for Older Respondent/Couple (percent distribution)

Variables	Philippines		Thailand		Taiwan		Singapore		Vietnam	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Total										
Work	59.7	42.4	46.7	30.5	30.9	20.1	30.2	6.7	34.0	25.5
Pension/retirement/CPF	10.1	5.1	4.3	0.8	34.6	22.7	3.7	0.9	14.4	7.5
Income from investments ¹	1.9	2.4	5.2	4.0	5.5	6.4	2.1	1.5	1.2	1.0
Children or relatives	23.9	40.6	43.7	64.6	26.2	48.7	62.5	90.3	44.5	52.8
Other ²	4.5	9.6	0.1	0.1	2.7	2.0	1.5	0.6	5.8	13.2
Married										
Work	66.2	53.1	51.6	47.0	35.1	29.1	33.2	7.6	38.1	33.3
Pension/retirement/CPF	9.8	3.4	4.8	0.8	31.6	22.3	3.4	1.2	16.0	14.2
Income from investments ¹	2.4	2.9	5.0	3.4	5.7	6.2	1.7	1.1	1.1	1.4
Children or relatives	19.4	33.8	38.6	48.8	25.9	41.1	60.4	89.5	39.8	44.6
Other ²	2.2	6.9	0.0	0.0	1.6	1.3	1.3	0.6	5.0	6.6
Unmarried										
Work	41.4	35.3	23.1	17.2	17.0	8.1	21.7	6.3	9.7	20.2
Pension/retirement/CPF	10.9	6.2	1.5	0.8	44.5	23.2	4.4	0.8	4.9	2.9
Income from investments ¹	0.5	2.0	6.3	4.4	4.8	6.8	3.5	1.6	1.9	0.6
Children or relatives	36.4	45.1	68.5	77.5	27.4	58.9	68.3	90.7	72.8	58.5
Other ²	10.7	11.3	0.6	0.1	6.3	2.9	2.1	0.6	10.7	17.8

¹Includes: rentals, savings, real estate, stock, annuity, severance pay

²Includes welfare payments. For Philippines only, includes no source specified.

Table 4. Income Levels

	Philippines		Thailand		Taiwan		Singapore		Malaysia		Indonesia		Bangladesh	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Total														
R/spouse income														
% in lowest quartile ¹	18.2	29.3	25.5	42.7	27.7	48.4	19.3	25.3	--	--	--	--	--	--
% missing	5.6	5.6	7.4	10.9	19.6	24.8	0.8	1.1	--	--	--	--	--	--
Household income														
% in lowest quartile ¹	27.5	34.7	15.3	19.4	13.2	19.1	32.2	31.3	25.5	24.1	26.8	27.6	19.5	28.6
% missing	5.5	3.9	9.5	11.7	31.3	42.7	4.4	4.8	7.4	12.0	2.2	1.9	0.9	7.7
Married														
R/spouse income														
% in lowest quartile ¹	13.6	13.9	21.3	29.8	23.6	37.1	15.9	15.2	--	--	--	--	--	--
% missing	6.6	3.8	6.3	7.3	19.6	24.6	1.0	0.8	--	--	--	--	--	--
Household income														
% in lowest quartile ¹	25.5	21.9	14.6	19.4	10.5	16.5	30.4	28.6	24.9	17.1	27.2	26.9	18.9	30.8
% missing	5.5	3.4	9.2	9.7	31.8	39.0	4.9	4.3	7.6	8.5	2.4	4.0	1.0	2.7
Unmarried														
R/spouse income														
% in lowest quartile ¹	30.8	39.8	47.7	54.0	41.2	63.1	28.7	29.8	--	--	--	--	--	--
% missing	3.0	6.9	13.1	13.9	19.4	25.2	0.5	1.2	--	--	--	--	--	--
Household income														
% in lowest quartile ¹	33.4	43.3	18.9	19.3	21.8	22.9	37.3	32.5	28.6	28.2	23.7	28.0	25.1	27.3
% missing	5.6	4.2	10.8	13.3	29.8	47.4	2.8	5.0	6.5	14.0	0.8	0.7	0.0	10.4

¹Among cases with non-missing data on income.

Housing Characteristics and Household Possessions

Table 5 addresses housing quality and household economic status for six of the countries in order to provide another indication of whether women are more disadvantaged than men at the household level. Housing quality indicators most commonly measured across the surveys include indoor water source, indoor toilet, refrigerator, telephone, and electricity. Variation across countries appears to correspond to economic development levels, with Malaysia being most advanced and Bangladesh the least. For most housing characteristics in most countries there is either no gender differential or women are advantaged relative to men. The main exception occurs in Vietnam, where women are slightly less likely than men to reside in households with an indoor toilet, refrigerator and telephone.

A count of the number of household possessions provides a second general indicator of household economic status. Results are presented using the same country specific ratio approach as in Table 2 for income sources. The possessions included in the count differed somewhat across countries, but generally included automobiles, motorbikes, appliances (refrigerator, TV, VCR), air conditioning or electric fans. In general gender differences are minimal in the number of household possessions and where large differences do exist they tend to favor women. For example, regardless of marital status, Filipino women live in households with slightly more possessions than average, while Filipino men live in households with fewer possessions. Vietnam is again an exception with unmarried men and men overall tending to be in households with modestly more possessions than equivalent women.

Assets

At least some information on who owns various assets, either alone (or as a couple, if married) or jointly with other family members, is available from the surveys in seven of the eight countries. Table 6 presents both the percentage owning specific categories of assets and a count of the number of different categories included among the respondents' assets. The count is presented in ratio form following the same approach as in previous tables.

The results point to limited gender differences in ownership of assets in the Philippines, Thailand, Vietnam, Malaysia and Indonesia, particularly once marital status is taken into account. The asset for which men show a consistent, albeit modest, advantage is home ownership. Within marital status categories, however, this differential tends to be reduced and in some cases even reversed. Men also have an advantage in Malaysia with respect to both other real estate and investments. In contrast, married Filipinos women show a slight advantage over their male counterparts on several assets, and unmarried Thai women are slightly more likely than men to own real estate (other than the current residence).

Greater gender disparity, particularly among the unmarried, appear for Taiwan and Singapore, the countries with predominantly patriarchal/patrilineal family systems. Men are substantially more likely than women to own their current residence and other real estate and also to have joint or full ownership in a business. This advantage is also reflected in higher than average numbers of assets owned by men compared to women.

Indirect and Direct Economic Support

Table 7 presents data on both indirect and direct economic support from other individuals. Although all of the surveys ask about support from other relatives (e.g., siblings, parents, grandchildren) in addition to children, financial and material support reported by the elderly in these countries overwhelming comes from their children.

In three of the countries, respondents were asked to indicate who paid for household expenses. In all of these men are more likely than women to report that the household expenses are mostly paid by themselves and their spouse. This differential is less pronounced in the Philippines than in Thailand and Taiwan. Married persons (both men and women) are much more likely than their unmarried counterparts to pay for most of the household expenses. Since far more women than men are unmarried, when marital status is taken into account, the gender differentials are substantially reduced. Only moderate differences

Table 5. Housing Characteristics

	Philippines		Thailand		Vietnam		Malaysia		Indonesia		Bangladesh	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Total												
Housing quality (%)												
Indoor water source	26.6	28.6	--	--	30.0	32.0	--	--	--	--	--	--
Drinking	--	--	22.9	27.0	--	--	78.4	82.6	20.9	23.9	13.2	14.0
Washing	--	--	--	--	--	--	77.5	80.7	20.0	22.5	7.0	8.6
Indoor toilet	34.4	40.2	44.4	47.2	24.0	21.3	85.1	85.1	24.3	27.3	25.0	24.9
Refrigerator	41.1	43.6	54.9	54.8	17.6	13.7	--	--	--	--	--	--
Telephone	--	--	15.2	14.4	16.3	10.4	--	--	3.1	3.8	--	--
Electricity	73.6	83.3	96.5	96.9	90.9	91.2	93.8	89.7	61.1	63.9	12.3	12.8
HH possessions ¹	0.90	1.07	1.02	0.98	1.06	0.95	1.00	1.00	--	--	1.01	0.99
Married												
Housing quality (%)												
Indoor water source	26.7	27.7	--	--	31.4	31.6	--	--	--	--	--	--
Drinking	--	--	22.4	24.5	--	--	78.2	77.4	21.5	22.8	12.6	13.8
Washing	--	--	--	--	--	--	77.5	77.4	20.5	21.6	6.9	10.0
Indoor toilet	35.2	39.3	44.2	44.6	24.0	20.5	86.2	88.9	24.5	25.5	25.5	31.0
Refrigerator	44.0	47.7	56.4	54.0	17.7	14.5	--	--	--	--	--	--
Telephone	--	--	15.0	12.6	17.1	10.3	--	--	3.3	4.4	--	--
Electricity	71.9	86.9	96.4	97.2	90.8	91.5	95.2	90.2	61.7	61.1	13.1	13.0
HH possessions ¹	0.90	1.14	1.02	0.96	1.07	1.05	1.00	0.99	--	--	1.03	1.03
Unmarried												
Housing quality (%)												
Indoor water source	26.3	29.1	--	--	23.2	31.9	--	--	--	--	--	--
Drinking	--	--	25.2	29.1	--	--	79.5	85.4	15.2	24.4	18.0	14.2
Washing	--	--	--	--	--	--	77.7	82.5	15.6	23.0	8.0	7.9
Indoor toilet	32.3	40.8	45.3	49.2	23.9	21.7	79.3	83.0	22.3	28.2	20.5	21.5
Refrigerator	33.8	40.6	47.8	55.4	17.0	13.2	--	--	--	--	--	--
Telephone	--	--	15.9	15.8	11.9	10.4	--	--	1.3	3.5	--	--
Electricity	78.5	80.9	97.2	96.7	91.5	90.9	86.3	89.4	55.6	65.4	4.6	12.8
HH possessions ¹	0.89	1.03	0.98	1.00	1.00	0.89	0.96	1.01	--	--	0.75	0.97

¹Ratio of mean number of possessions for specified group to overall sample mean

Table 6. Assets (percent owning various assets)

	Philippines		Thailand		Taiwan		Singapore		Vietnam		Malaysia		Indonesia	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Total														
Home ownership ¹	83.5	72.8	90.4	81.4	58.4	41.8	72.3	55.2	87.8	75.4	75.7	72.6	51.1	41.2
Other real estate	36.9	33.2	8.8	9.5	43.7	31.3	--	--	--	--	27.0	15.8	--	--
Business interests	20.7	19.1	--	--	2.1	1.2	2.4	0.9	--	--	5.3	4.1	66.2	57.1
Investments ²	12.4	8.6	35.2	29.1	38.8	29.6	70.4	64.4	3.1	2.1	19.3	8.5	67.1	56.8
Other valuables	40.7	40.6	--	--	0.5	0.2	3.8	2.6	--	--	95.0	92.4	--	--
Assets (mean ratio) ³	1.07	0.95	1.06	0.95	1.14	0.83	1.12	0.90	--	--	1.06	0.93	1.10	0.92
Married														
Home ownership ¹	88.6	82.8	92.8	91.7	64.4	59.3	76.3	64.1	89.8	87.8	77.5	77.4	52.4	51.1
Other real estate	38.2	40.2	8.9	7.5	48.3	42.2	--	--	--	--	28.8	10.0	--	--
Business interests	22.6	25.7	--	--	2.7	1.4	3.0	1.4	--	--	5.2	4.3	67.3	64.1
Investments ²	12.4	9.5	36.5	32.7	39.9	32.3	69.1	66.8	3.1	2.9	20.9	6.9	68.2	64.0
Other valuables	44.4	48.7	--	--	0.5	0.2	4.1	2.7	--	--	95.8	98.1	--	--
Assets (mean ratio) ³	1.00	0.99	1.02	0.97	1.05	0.91	1.05	0.90	--	--	1.09	0.95	1.12	1.07
Unmarried														
Home ownership ¹	69.2	66.1	78.5	72.9	38.6	19.2	61.0	51.3	75.6	66.9	66.1	70.0	40.7	36.0
Other real estate	33.3	28.5	8.5	11.1	28.5	17.1	--	--	--	--	18.2	19.0	--	--
Business interests	15.5	14.8	--	--	0.2	1.0	0.8	0.7	--	--	5.6	4.0	56.8	53.4
Investments ²	12.2	8.1	28.9	26.1	35.0	26.1	73.9	63.4	2.9	1.5	10.9	9.3	57.8	53.0
Other valuables	30.3	35.2	--	--					--	--	90.8	89.2	--	--
Assets (mean ratio) ³	1.06	0.98	1.04	0.99	0.5	0.2	3.0	2.6	--	--	0.91	0.92	0.92	0.85

¹Includes the house and, in some cases, the land on which the house sits.

²Includes: rentals, savings, real estate, stock, annuity, severance pay. For Philippines, includes only savings.

³Ratio of mean number of types of assets for specified group to overall sample mean

Table 7. Indirect and Direct Economic Support

	Philippines		Thailand		Taiwan		Singapore	
	Men	Women	Men	Women	Men	Women	Men	Women
Total								
Household expenses							--	--
Mostly paid by R/spouse	53.3	45.7	59.9	40.1	44.6	28.0		
Shared equally with others	12.8	8.0	3.8	3.4	4.4	2.8		
Mostly paid by others	34.0	46.3	36.4	56.4	51.0	69.2		
Receives indirect support ¹	50.6	57.6	47.3	65.2	43.6	64.6	75.5	91.6
Receives financial support from others ²	87.7	88.0	87.2	88.8	60.7	76.6	85.2	96.5
Receives material support from others ³	87.0	93.2	88.0	87.0	12.5	16.9	--	--
Married								
Household expenses							--	--
Mostly paid by R/spouse	57.8	54.7	67.0	58.0	50.6	42.0		
Shared equally with others	15.0	12.5	3.9	3.5	4.9	3.8		
Mostly paid by others	27.2	32.8	29.0	38.6	44.5	54.2		
Receives indirect support ¹	46.6	50.4	41.3	49.2	42.3	53.2	74.0	87.7
Receives financial support from others ²	87.5	87.1	86.7	89.0	64.5	73.9	87.1	97.7
Receives material support from others ³	85.4	94.6	88.5	89.1	12.0	14.6	--	--
Unmarried								
Household expenses							--	--
Mostly paid by R/spouse	40.9	39.7	25.0	25.6	18.3	13.1		
Shared equally with others	6.8	5.0	3.0	3.4	2.2	1.7		
Mostly paid by others	52.4	55.3	72.0	71.0	79.6	85.2		
Receives indirect support ¹	61.4	62.4	76.3	78.2	47.8	79.3	79.8	93.3
Receives financial support from others ²	88.2	88.7	89.2	88.7	48.3	80.0	80.0	96.0
Receives material support from others ³	91.6	92.3	85.8	85.3	14.1	19.8	--	--

¹Indirect support includes receiving accommodations or rations from children or maintenance in kind from anyone other than spouse.

²For Singapore and Malaysia, receipt of financial support is same as receiving income from children or other relatives (see Table 2). For Indonesia figures represent receipt of financial support from non-coresident children only. For Bangladesh, transfers of financial and material support are combined in a single question.

³For all countries except Taiwan and Vietnam, transfers of material support are ascertained only between respondents and non-coresident children and other relatives. For Singapore, receipt of material support is indistinguishable from indirect support (accommodations, rations).

Table 7. (continued)

	Vietnam		Malaysia		Indonesia		Bangladesh	
	Men	Women	Men	Women	Men	Women	Men	Women
Total								
Receives indirect support ¹	--	--	--	--	--	--	--	--
Receives financial support from others ²	50.3	54.9	58.4	62.1	13.9	28.0	45.3	51.3
Receives material support from others ³	83.7	85.3	20.7	26.0	6.2	10.3		
Married								
Receives indirect support ¹	--	--	--	--	--	--	--	--
Receives financial support from others ²	49.1	53.1	59.1	57.8	12.5	33.5	47.0	52.6
Receives material support from others ³	82.7	90.3	20.2	18.7	5.4	9.8		
Unmarried								
Receives indirect support ¹	--	--	--	--	--	--	--	--
Receives financial support from others ²	58.0	56.1	54.7	64.6	25.4	25.0	30.0	50.6
Receives material support from others ³	90.2	81.9	23.6	30.1	13.1	10.5		

¹Indirect support includes receiving accommodations or rations from children or maintenance in kind from anyone other than spouse.

²For Singapore and Malaysia, receipt of financial support is same as receiving income from children or other relatives (see Table 2). For Indonesia figures represent receipt of financial support from non-coresident children only. For Bangladesh, transfers of financial and material support are combined in a single question.

³For all countries except Taiwan and Vietnam, transfers of material support are ascertained only between respondents and non-coresident children and other relatives. For Singapore, receipt of material support is indistinguishable from indirect support (accommodations, rations).

are evident between married men and women and even smaller differences characterize unmarried men and women.

The pattern relating to the dichotomous measures of indirect economic support is quite similar. In all four countries for which this measure is available, women are more likely than men to report receiving such support, with the differential less pronounced in the Philippines than elsewhere. Controlling for marital status reduces the gender differences substantially (except for unmarried individuals in Taiwan), but does not eliminate them.

The patterns are less systematic across countries when it comes to direct receipt of financial and material support. In the Philippines, Thailand, Vietnam, and Malaysia, men and women are about equally likely to receive financial support from others, though where small differences do exist they tend to favor women. In contrast, in Taiwan, Singapore, and Indonesia women are substantially more likely than men to receive financial support from others; in Bangladesh the gender difference is in the same direction but more moderate. This is particularly true for unmarried women in Taiwan, Singapore and Bangladesh, and for married women in Indonesia. The lack of gender difference for unmarried Indonesians may be due to the fact that the figures presented reflect financial transfers from non-coresident relatives only. This is in contrast to the other countries, which also include financial transfers from coresident family members. Since unmarried women (in Indonesia and elsewhere) tend to be more likely than unmarried men to coreside with children, they may be less likely to receive inter-household financial transfers (but more likely to receive intra-household transfers). With regard to material support, women are slightly more likely than men to receive such support (with the exception of Thailand) and there is no consistent pattern of gender differences by marital status.

In some respects the findings pertaining to indirect and direct transfers of support are counter to the concern that the position of elderly women in patrilineal/patriarchal societies is less secure than that of elderly men. Except for Indonesia, the proportion of women receiving support from children and other family members is quite high, particularly for widows who presumably have a greater need for support. On the other hand, the high level of support from family members may be indicative of a more tenuous position of women in society (if not in the family) in that women are forced to rely on support from kin in the absence of more formal support mechanisms provided through work or through private or public pensions. In addition, closer emotional ties between mothers and children may lead to more filial support for women. Thus the high percentage of women receiving financial and material support may not merely be the result of substitution for lack of formal support mechanisms for women.

Subjective Economic Well-Being

In five of the countries respondents provided subjective assessments of their own economic situation by answering questions about how satisfied they were with their current economic situation or how adequate their income was to meet their current expenses, or both. As Table 8 shows, differences among the countries in these measures only partially correspond with levels of economic development. For example, although the proportions reporting some level of inadequacy are higher in the Philippines and Vietnam than in either Taiwan and Singapore, the proportion not satisfied with their economic situation is lower in Vietnam than in either Thailand or Taiwan. This lack of clear correspondence probably reflects linguistic differences in terminology across the different languages as well as different cultural influences on how subjective assessments of one's situation are made. Neither of these influences, however, is necessarily different for men and women.

Generally, there is a striking *lack* of difference by gender in satisfaction with economic status and perceived adequacy of income. The main exception is Vietnam, where women are less satisfied than men with their current economic status and are more likely to report having inadequate income to meet their expenses, although within marital status groups these differentials are somewhat less pronounced. While women in both the northern and southern samples in Vietnam were less satisfied than men, the gender difference is considerably more pronounced in the northern sample (results not shown in table). This could reflect the stronger tradition of patriarchy that is believed to characterize the North (Belanger 2000; Bryant 2002). However, gender differences in perceived income adequacy are very similar in both regional samples. In Thailand, which ranks second in the magnitude of gender differentials, men are *less* satisfied than women with their current economic status.

Marital status is not consistently related to levels of economic satisfaction or income adequacy. While in Vietnam, unmarried are more likely than married elders to make unfavorable judgments about their situation, in Thailand the opposite is true. In the other three countries, married and unmarried elders do not differ much in their judgments.

Multivariate Analyses

To conclude our analysis we present results of logistic regression models to assess the impact of gender on economic well-being, first unadjusted and then adjusted for several basic covariates (age, marital status and living arrangements). We purposely do not include background variables such as educational level or work status which themselves may reflect gender discrimination. The outcomes examined include dichotomous indicators of income--both personal (individual or couple) and household income--as well as satisfaction with and perceived adequacy of income. Three hierarchical models are estimated for each outcome: model 1 includes only gender as a predictor (coded 1 if female, 0 if male), model 2 adds marital status plus an interaction between gender and marital status (where significant at $p < .10$), and model 3 adds age (coded in years) and living arrangements (lives with married child, which may also include others; lives with unmarried child, which may include others except married children; and does not live with children -- the reference category). Results from the regression models are presented in Tables 9 and 10 in the form of odds-ratios.

Table 9 presents results for the logistic regression models predicting low income for those countries with the requisite data. The dependent variables in these models indicate whether or not the respondent fell in the lowest quartile (or thereabouts) of the income distribution (coded 1 if yes, 0 if no), first with regard to personal income (respondent's plus spouse's, presented in the left panel) and secondly with regard to household income (shown in the right panel). Respondents with missing values on personal or household income are excluded from the respective analyses.

The results from the unadjusted models show that women are significantly disadvantaged relative to men with respect to personal income in all four countries examined. Interestingly, women are most disadvantaged in the two countries with bilateral family systems, with Thai women more than two times as likely as Thai men to have incomes in the lowest quartile ($OR = 2.17$), and Filipino women just under two times as likely ($OR = 1.85$). Women are also significantly disadvantaged in the two countries with predominantly patrilineal family systems, Taiwan and Singapore, but less so ($OR = 1.42$ and 1.48 , respectively).

Marital status is also a strong predictor of personal income. Married individuals are substantially less likely than unmarried ones to have incomes in the lowest quartile. Marital status also accounts for a large component of the gender effect in the Philippines, Thailand and Singapore. Once marital status is controlled, in Singapore the gender differential is non-existent ($OR = 1.01$) and in the Philippines the gender differential is reduced substantially (from $OR = 1.85$ to $OR = 1.26$), losing statistical significance. In Thailand the disadvantage faced by women is also reduced considerably, but it remains statistically significant.

Table 8. Satisfaction with and/or Adequacy of Income

	Philippines		Thailand		Taiwan		Singapore		Vietnam	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Total										
Satisfaction: Very satisfied	--	--	9.3	9.0	7.1	6.2	--	--	2.1	1.1
Satisfied	--	--	58.4	64.5	76.4	76.2	--	--	87.1	80.4
Not satisfied	--	--	32.3	26.5	16.5	17.5	--	--	10.8	18.4
Adequacy: More than adequate	8.8	9.0	--	--	8.3	6.1	8.3	8.5	5.3	2.4
Just adequate	31.2	29.0	--	--	62.5	60.4	81.6	81.4	46.6	38.0
Somewhat inadequate	38.3	38.1	--	--	18.4	21.9	8.1	7.8	37.4	38.3
Very inadequate	21.8	23.9	--	--	10.8	11.6	2.0	2.2	10.8	21.2
Married										
Satisfaction: Very satisfied	--	--	9.1	8.0	6.9	6.5	--	--	2.3	1.0
Satisfied	--	--	57.3	61.2	76.7	76.6	--	--	87.8	83.3
Not satisfied	--	--	33.6	30.8	16.4	16.9	--	--	9.9	15.7
Adequacy: More than adequate	8.1	9.0	--	--	8.6	6.3	8.6	6.7	5.9	1.9
Just adequate	31.8	32.6	--	--	63.4	64.6	81.6	84.0	46.3	42.8
Somewhat inadequate	38.5	35.2	--	--	17.9	21.2	7.9	6.5	37.9	39.1
Very inadequate	21.6	23.2	--	--	10.2	7.9	1.9	2.8	9.9	16.1
Unmarried										
Satisfaction: Very satisfied	--	--	10.0	9.8	7.8	5.9	--	--	1.2	1.3
Satisfied	--	--	64.3	67.3	75.4	75.8	--	--	81.7	78.3
Not satisfied	--	--	25.7	22.9	16.7	18.4	--	--	17.1	20.3
Adequacy: More than adequate	10.7	9.0	--	--	7.3	5.9	7.6	9.4	1.1	2.6
Just adequate	29.4	26.6	--	--	59.4	55.0	81.7	80.2	48.4	34.5
Somewhat inadequate	37.5	40.1	--	--	20.3	22.8	8.6	8.4	33.7	37.9
Very inadequate	22.4	24.3	--	--	13.0	16.4	2.1	2.0	16.8	25.0

Table 9. Odds -ratios for the effects of gender and key covariates on having low respondent/spouse income

	Low respondent/spouse income				Low household income						
	Philippines	Thailand	Taiwan	Singapore	Philippines	Thailand	Taiwan	Singapore	Malaysia	Indonesia	Bangladesh
Model 1											
Female	1.85***	2.17***	1.48***	1.42***	1.40**	1.33***	1.55***	0.96	1.02	1.04	1.65***
Model 2											
Female	1.26	1.47***	1.79***	1.01	1.53*	1.29**	1.40**	0.87	0.89	1.05	1.66**
Married	0.28***	0.34***	0.57***	0.45***	0.68	0.91	0.53***	0.78**	0.74	1.01	1.00
Married*female	--	--	0.62*	--	0.54*	--	--	--	--	--	--
Model 3											
Female	1.29	1.62***	1.68**	1.01	1.60*	1.28*	1.89***	1.19	1.08	1.06	1.50*
Married	0.36***	0.49***	0.65**	0.67***	0.85	0.85	0.59***	0.71***	0.75	1.01	0.80
Married*female	--	--	0.72	--	0.49*	--	--	--	--	--	--
Age	1.05***	1.09***	1.06***	1.08***	1.03**	1.02**	1.04***	1.02***	1.04*	1.00	1.00
Living arrangement (vs. no child in hh)											
Married child in hh	1.24	1.67***	1.18	1.53**	0.67**	0.15***	0.15***	0.02***	0.06***	0.33***	0.20***
Unmarried child in hh	0.78	0.82	0.90	0.90	0.49***	0.28***	0.24***	0.08***	0.24***	0.62***	0.31***

* p < .05 ** p < .01 *** p < .001

In Taiwan there is a significant interaction between gender and marriage, implying that the effect of gender differs for married and unmarried persons. Specifically, among those who are married there is essentially no gender difference (OR=0.57 for married men versus 0.63 [derived as the product of $1.79 \times 0.57 \times 0.62$] for married women); however, among those who are unmarried, women are significantly disadvantaged relative to men (OR=1.79 for unmarried women versus 1.00 for unmarried men). This unique pattern in Taiwan may be due to the distinctiveness of the older unmarried male population in Taiwan, which is largely comprised of Mainlanders who, as noted previously, were mostly young male soldiers and military officials who fled from Mainland China to Taiwan in the aftermath of the Chinese civil war. A large proportion of Mainlanders never married and they tended to work primarily in government positions, which afforded them higher socioeconomic status on average than their native Taiwanese counterparts.

Model 3 adds controls for age and living arrangements. The likelihood of falling in the lowest income quartile increases dramatically with age in all four countries, and those living with married children tend to be somewhat more likely than those not living with children to have low incomes in Thailand and Singapore. (Those living with unmarried children tend to be slightly less likely than those not living with children to have low incomes, but these effects are not statistically significant.) Although controlling for age and living arrangements moderates the effect of marital status slightly, it has little impact on the gender effect. Taken together the results with regard to personal income suggest that women are disadvantaged relative to men in all four countries, but that this disadvantage operates primarily through marital status in the Philippines and Singapore and is only apparent for unmarried women in Taiwan.

Women are also disadvantaged with respect to household income in several of the countries, although where comparisons are possible, the unadjusted effects tend to be more modest than those observed for personal income (Taiwan being the exception). In addition, in Singapore, Malaysia and Indonesia, women are no more likely than men to have low household incomes.

Controlling for marital status (Model 2) slightly moderates the effect of gender in Thailand and Taiwan, but gender effects remain significant. In the Philippines, gender and marital status interact suggesting that unmarried women are disadvantaged relative to unmarried men with respect to household income (OR=1.53 for unmarried women versus 1.00 for unmarried men), but there is no gender difference among married persons. Controlling for age and living arrangement (Model 3) strengthens the gender disparity in Taiwan but has little impact for the other countries.

Table 10 presents results for the logistic regression models predicting the two subjective measures of economic well-being: satisfaction with income (coded 1=not satisfied; 0=satisfied or very satisfied), and adequacy of income (coded 1=somewhat or very inadequate, 0=just adequate or more than adequate). We used the same hierarchical modeling strategy and control variables as for the income analyses.

With regard to subjective economic well-being, the gender differences are smaller and less pervasive. The only countries for which women report statistically significantly lower levels of well-being than men are Vietnam (for both indicators) and Taiwan (for inadequacy of income). Adjusting for marital status in Model 2 reduces the gender differences in both countries, although disadvantage for Vietnamese women remains statistically significant on both indicators. (Note that there were no significant interactions between gender and marital status, thus they are not shown here.) Adding age and living arrangements as controls has little impact on the effect of gender. The only other gender difference that is observed with respect to subjective economic well-being is in Thailand, where married women are slightly *less* likely to report dissatisfaction with income (OR = 0.75, $p < .001$ in Model 1). This effect is moderated somewhat by marital status, but remains marginally significant after incorporating all the controls in model 3.

As noted earlier, the subjective measures are likely to provide a more comprehensive measure of economic well-being than the objective measures of specific dimensions. Thus the fact that we observe only moderate or essentially no gender differences in most of the countries with requisite data is particularly revealing. This finding may be related to the finding that, although women tend to be

Table 10. Odds-ratios for the effects of gender and key covariates on satisfaction and adequacy of income

	Dissatisfaction with income			Inadequacy of income			
	Thailand	Taiwan	Vietnam	Philippines	Taiwan	Singapore	Vietnam
Model 1							
Female	0.75***	1.08	1.51***	1.08	1.22*	1.00	1.58***
Model 2							
Female	0.87	1.06	1.35*	1.03	1.13	0.96	1.43**
Married	1.49***	0.94	0.78*	0.85	0.70***	0.90	0.80*
Model 3							
Female	0.87*	1.12	1.32*	1.03	1.19*	1.07	1.39**
Married	1.34***	0.86	0.79	0.88	0.77**	0.86	0.77*
Age	0.98***	0.99	1.00	1.01	1.03***	1.00	0.99
Living arrangement (vs. not living with children)							
Lives with married child	1.02	0.74**	0.60***	1.02	0.92	0.29***	0.73**
Lives with unmarried child	1.20*	1.23	0.62**	1.03	1.31*	0.44***	0.69*

* p < .05 ** p < .01 *** p < .001

disadvantaged relative to men on individual/couple financial measures (e.g. income sources and amounts), there is less discrepancy on household-level measures. Given that elderly persons live within households and thus share much of the common fate of the household, the modest differences in economic well being between the households in which elderly men and women live may account for the lack of gender differences in perceived well-being.

It is possible that women in the study countries are less apt to report negative feelings about their financial situation, particularly if they are dependent on others for financial support. In a study focusing on change in subjective economic well-being in Singapore and Taiwan, Chan and colleagues (2002) found that, controlling for change in actual income and other key covariates, women were more likely than men to report that their economic circumstances had improved over a four year period; that is, other things being equal, women were more optimistic than men about their financial situation. Several other studies challenge this idea, however. First, in a study of older adults in the United States, Hazelrigg and Hardy (1997) found that, although there was a strong bias toward positive judgments of income adequacy, women were no more likely than men to display this bias. Other evidence from the US suggests that older men and women differ in the importance they give to different resources when judging their financial satisfaction, but that women do not necessarily have lower thresholds (Danigelis and McIntosh 2001). In addition, although drawing from a different substantive focus, studies of gender differences in reports of illness and disability consistently show that women are not inhibited about reporting health problems or complaints, and indeed are more likely than men to do so (MacIntyre, Hunt, and Sweeting 1996; Verbrugge 1985 and 1989). Unfortunately the issue of gender differences in how perceptions of financial well-being are formulated and/or reported in a survey context cannot be directly addressed with the data at hand.

Summary and Conclusion

Concern over the vulnerability of the older population in general, and older women in particular, has been a major impetus of much of the research and the focus of considerable attention relating to population aging. There is considerable appeal to using broad, easily identifiable criteria (such as gender or age) for purposes of targeting interventions to groups of individuals who are thought to be most vulnerable, rather than hone in on very specific subgroups defined by more subtle criteria. However, broad groups are generally quite heterogeneous, and targeting groups on the basis of one or two criteria may lead to gross mischaracterizations and costly inefficiencies from an intervention standpoint. Thus, it is important to carefully consider how vulnerability varies within, as well as across groups defined by such broad criteria.

The present study provides a comprehensive empirically-based analysis of gender differences in economic support and well-being of older adults across eight diverse countries in Asia. We examine numerous different indicators, including both individual and household level measures and formal and informal sources of support. The findings indicate that women (particularly widows) are more likely to rely on family members for financial and material support, whereas men are more likely to have their own sources of income, mainly through work. To date, public and private pensions play a small role in the economic support of elderly in the study countries, although where they do exist men tend to have greater access than women. Despite gender differentials in actual income levels, which tend to favor men, there is much less difference between men and women with respect to housing characteristics, ownership of assets, and reports of economic satisfaction or income sufficiency. Finally, unmarried women appear to be advantaged compared to unmarried men in some respects, largely because they are more likely to be embedded in multigenerational households and to receive both direct and indirect forms of support from family members.

This study, though largely descriptive, provides an important benchmark for future research on gender and economic well-being with important policy implications. Significantly, it goes beyond the preoccupation of much of the previous academic dialogue that presumes women's comparative disadvantage in old age (Gibson 1996). Likewise, statements by international agencies dealing with

population, aging and development typically emphasize the disadvantaged situation of older women, particularly widows (Knodel and Ofstedal 2003). Most notably, the Plan of Action emanating from the 2nd World Assembly on Aging held in April 2002 argues repeatedly throughout the documents that older women are more vulnerable than their male counterparts in virtually every dimension including being economically disadvantaged (United Nations 2002). Our results provide an important qualification to over-simplified global generalizations that often ignore the substantial variation that may exist in the relative situations of older men and women and challenge, or at least qualify, the existing paradigm stressing the globally disadvantaged position of older women.

Although the study deals with eight different countries and examines a comprehensive set of indicators of economic well-being, it has several limitations. First, the information on economic status is self-reported by the sampled respondents. Individuals are likely to vary in the extent to which they are able to accurately report their financial resources and holdings. Thus some surveys, such as the Health and Retirement Study in the United States attempt to identify the person in the household who is most knowledgeable about family and household finances (Juster and Suzman 1995). To our knowledge, little is known about the relative awareness of older men and women with regard to their individual and household finances in the study countries.

To the extent that women are less knowledgeable than men regarding finances, they may under-report certain sources of income and assets and their value. The pattern with regard to pension income for married individuals is suggestive in this regard. Given that married respondents in most countries are supposed to be reporting sources of the couple's income, there should be little gender difference. But, in fact, the gender difference in pension as a source of income is even more striking for married people than for unmarried. This may suggest that women are less informed, at least about pension income, than are their husbands. Also, the finding that, in many countries, women were more likely than men to report "don't know" in response to amount of individual and household income supports this notion. On the other hand, women may be equally or more aware than men of financial and material transfers involving children and other relatives, and thus men may under-report such support. We also do not know whether men and women use different criteria and/or thresholds when forming subjective assessments of their economic well-being. Because the surveys obtained information on individual and household finances and subjective well-being from only one respondent per household, it is not possible to evaluate this possibility with the data at hand. Gaining a better understanding of the accuracy of reporting on financial resources and well-being is clearly an important priority for future research.

Our study is also limited in the extent to which results can be generalized to Asia as a whole. Although we utilize surveys from eight Asian countries, many lack data on one or more indicators. Moreover, the two most populous (India, China) and the two most economically developed countries (Japan, Korea) are excluded altogether. Had we been able to include these and other Asian countries, a different and/or more consistent picture of gender differences in economic well-being in Asia may have emerged. Nevertheless, the countries included cover a broad range of economic development and are quite diverse culturally and with regard to family systems and their implications for gender roles and relations. Thus the current study is likely to provide a reasonable representation of the range of patterns that exist across Asia. In addition, a recent survey of the oldest old in China found that although older women were substantially less likely to receive a pension than men, gender differences in self-reported good life satisfaction were negligible (Zeng, Yuzhi and George 2003). While life satisfaction will obviously reflect many dimensions of well-being, one's economic situation is likely to be part of this.

Although from a different world region, findings from a systematic assessment of economic disadvantage among the population 60 for a wide variety of Latin American countries recently issued by the United Nations Economic Commission for Latin America (CELADE 2002) are also similar to what we found. As in Asia, older men are more likely to receive income from formal sources (retirement pensions and allowances combined) in almost all of the countries. However, when the percent below the poverty line is examined, which provides an indicator of the net effect of various forms of income and support, gender differences were typically modest and could be in either direction (Knodel and Ofstedal 2003).

Comparative research based on representative empirical data such as the present study is essential if international agencies are to provide informed guidance for policies and programs to assist elderly populations and to help target these programs more effectively. Moreover, governments in Asia are increasingly concerned about the costs of social welfare programs as their populations age, and are seeking approaches that can utilize existing family and social arrangements to assist in providing economic, emotional and physical support to the elderly (Bui The Cuong et al. 2000; Knodel 1999; Knodel et al. 2000). In formulating national policies and programs to address future rapid population aging, the relevant government agencies will benefit by taking into account systematic assessments of the current situation such as our findings provide rather than uncritically accepting commonly held assumptions that fail to acknowledge the extent of diversity across settings and the specifics of their own national and regional contexts.

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Figure 1. Data Sources

Country	Survey	Year of Data Collection	Sample Size (age 60+ sample)
Bangladesh	Matlab Health and Socio-economic Survey	1996	1,531
Indonesia	Indonesian Family Life Survey	1993	2,508
Malaysia	Malaysian Family Life Survey	1988	613
Philippines	Philippine Elderly Survey	1996	1,311
Singapore	National Survey of Senior Citizens	1995	4,001
Taiwan	Survey of Health and Living Status of the Middle-aged and Elderly in Taiwan	1996	3,605
Thailand	Survey of the Welfare of the Elderly in Thailand	1995	4,486
Vietnam	Survey of Elderly in Ho Chi Minh City and Environs and Survey of Elderly in Red River Delta	1996-97	1,769