

**Gender Differences in Socioeconomic Status:
Evidence from the 2012 Viet Nam Household Living Standard Survey**

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I. Introduction

This report identifies dimensions of inequality in opportunities and outcomes related to social development in Viet Nam, with an eye to connecting these results to concrete policy recommendations that may be adopted to ensure a win-win outcome: gender equality to a greater degree, the mobilization of human resources, and improvements in societal well-being.

The analysis uses data from Viet Nam's 2012 Household Living Standards Survey (VHLSS) to explore how men and women in Viet Nam differ in educational attainment, labor market status, and health status. The VHLSS, begun in 2002 and conducted every two years by Viet Nam's General Statistics Office, is nationally representative and has data on a range of individual and household characteristics including income, ethnicity, region of residence, household structure, education, and income earned from different activities. In some cases, results from 2012 are compared with those from 2004-2010 to gain a perspective of how inequality has changed over time.

This study presents a battery of descriptive statistics calculated from the 2012 VHLSS. All statistical analyses were weighted to the national population of civilian, non-institutionalized individuals in Viet Nam using the sampling weights provided in the 2012 VHLSS. The analysis utilized both the full sample and a number of alternative sub-samples depending on the topic at hand. The analysis utilized both the full sample and a number of alternative sub-samples depending on the topic at hand. The full sample for 2012 contains observations for 9,399 households and 36,655 individuals ages 0 to 102. Most statistical tables report unweighted sample sizes in order to indicate the actual number of sampled households or individuals under consideration in each case.

II. Household Characteristics

Distribution of Households

Household level data reveal substantial differences in socioeconomic status and household structure across Viet Nam's rural and urban areas.

Information on the distribution of households and characteristics specific to regions, ethnicity, and other categories related to socioeconomic status and household structure are reported in Table 2-1. As seen in the table, the majority (70 percent) of Viet Nam's households still live in the rural sector, with almost half of the population residing in the Red River Delta in the north and the North Central and Central Coastal Area. This rural share reflects a small decline since 1998, when 76 percent of households lived in the rural sector. Most (87 percent) households are members of the Kinh and Chinese ethnic groups, with the remainder of households belonging to a number of ethnic minority groups that are spread across the country. As demonstrated in the subsequent analysis, these minority groups consistently experience economic vulnerability and marginalization compared to the majority Kinh and Chinese ethnic groups.

In terms of family structure, the average household has 4 members, with 73 percent of households exhibiting "nuclear" family structures comprised just of parents and children, and another 20 percent of households (those labeled as "vertical") also including grandchildren or grandparents. The remaining 8 percent of households include other relations or friends. Of all household heads in the 2012 VHLSS, 80 percent are married. Viet Nam has a fairly high percentage of female household heads (26 percent of household heads are women), and these female-headed households are quite diverse in structure and socioeconomic status as discussed in more detail below.

As often seen in other countries, people living in rural areas are disproportionately characterized by factors associated with poverty, including less education, more agricultural self-employment, relatively more individuals in the lower expenditure quintiles, and less access to basic infrastructure and utilities. For example, fewer household heads in rural areas have access to wage employment (14 percent) compared to household heads in urban areas (48 percent). In contrast, fewer household heads in rural areas can afford to be without any type of employment. A closer look at employed and non-employed household heads across rural and urban areas indicates that this difference is occurring because there are relatively more female household heads in urban areas who are not employed but have an adult male living in the home with them. Another notable difference between rural and urban areas is that just 13 percent of households in the rural sector have access to tap water and 44 percent have flush toilets compared to 70 percent of urban households with access to tap water and 86 percent with flush toilets. Similar discrepancies exist between rural and urban households in having garbage collection. In contrast, connections to the national electricity grid are fairly equitable across rural and urban areas.

Differences between Male- and Female-Headed Households

While a quarter of Viet Nam's households are headed by women, as a whole they do not conform to the typical scenario of a single parent living with children in poverty. Female-headed households in Viet Nam are quite heterogeneous, and a substantial number of female household heads are married and enjoys a relatively high standard of living.

As shown in Table 2-2, close to 40 percent of female-headed households are led by married women, and these households vary in numerous ways compared to the other types of household structures. First, they are more likely to reside in urban areas than rural areas. Among households headed by married women, 52 percent live in urban areas, compared to 34 percent

for households headed by single women and 26 percent for households headed by men. Households headed by married women also have a higher likelihood than most other household types of residing in the relatively more prosperous South East region, and they also have a higher representation among the relatively well-off Kinh/Chinese ethnic group. Furthermore, while married female heads tend to be younger than most other types of household heads, they are also less likely to live with elders in their care.

Married female household heads also have, on average, higher educational attainment than other household heads. For example, 43 percent of married female household heads have an upper secondary school education or more, compared to 15 percent of single female heads and 28 percent of male heads. In contrast, just 3 percent of married female heads have no education, compared to 17 percent of unmarried female heads and 5 percent of men. Similarly, married female heads are more likely to be employed than their single counterparts, although less likely to be employed than married male heads. This difference between married women and men might reflect the male breadwinner bias still commonly seen around the world. Finally, a far greater percentage of married female heads compared to other types of household heads are located within the top two expenditure quintiles. While 60 percent of married female heads live in households that are located among the wealthiest two expenditure quintiles, just 38 percent of single female heads and 38 percent of male heads occupy this category. These stark differences across expenditure quintiles reinforce the point that female-headed households in Viet Nam are a very heterogeneous group.

At the other extreme, households headed by married men are disproportionately rural, have higher representation among ethnic minorities, and are more likely to be caring for children.

Although married male heads have relatively high rates of employment, this employment tends to be non-wage self-employed in agriculture.

Household Expenditures on Major Categories

Households in Viet Nam with higher socioeconomic status spend proportionately more on health, education, and durable goods, and less on food.

Consistent with expenditure patterns in other countries, households that are better off can afford to spend proportionately more goods and services beyond food that enhance their well-being. For example, households in the highest expenditure quintile spend almost 5 percent of their budgets on health care and another 5 percent on education, compared to just 3 percent for health and 2 percent for education spent by households in the lowest expenditure quintile (Table 2-3). The gradient across expenditure quintiles is even more pronounced for durable goods spending, and similar gradients are observed when households are categorized by educational attainment of the household head. In contrast, less than 40 percent of household budgets are spent on food for the most educated and well-off households, compared to over 50 percent for the least educated and least well-off households. This point also applies to some of the differentials observed for household structure. For example, female-headed households and households with no children present tend to have higher incomes, and these households also have lower food budget shares.

Access to Basic Infrastructure and Sanitation

With the exception of being connected to the national electricity grid, Viet Nam's relatively disadvantaged groups have markedly less access to basic infrastructure and sanitation services.

Access to improved sanitation and improved water shows a distinct gradient in moving from households with less educated heads and with less spending power, with about 40 percent of households in the lowest socioeconomic status groups having access to improved sanitation and close to 75 percent having access to improved water, compared to over 90 percent of the most well off households with access to sanitation and about 90 percent with access to improved water sources (Table 2-4). Moreover, the majority of households treat their water by boiling it or treating it with chemicals. However, there is still some correlation with socioeconomic status and having the means to treat water (by being more educated or in a higher expenditure quintile), not with living in an infrastructure-poor area. Finally, access to basic infrastructure also varies somewhat by region, with the less economically developed parts of Vietnam, especially the Northern Midlands and Mountain Area and the Central Highlands, reporting relatively fewer households who have access to improved sanitation, garbage collection, improved water sources, and tap water in the home.

III. Employment, Unpaid Work, and Wages

Gender differences in labor market outcomes around the world typically encompass a number of areas: participation rates in the formal labor market, hours of paid and unpaid work, wage differentials, and segregation by occupation and industry. Consistent with other countries at similar stages of development, Viet Nam has high female employment rates that are not dramatically lower than those of men. Larger gender differences begin to emerge primarily in the realm of unpaid domestic work. Consistent with many other countries, women in Viet Nam generally work longer hours than men and they perform more unpaid housework than men (UNDP 1995; World Bank 2001). Also similar to other countries, Vietnamese men tend to experience a fairly stable time use profile over their lifetimes, whereas women experience more

variable paid and unpaid work-loads as family structures change. Differences between men and women are largest when caring for young children.

When women engage in paid work, they earn less than men on average. Gender differences in wages are an international phenomenon, and the male advantage in wages often persists over time. Gender differences in occupational distributions can play a major role in explaining gender earnings gaps: if women are concentrated in relatively low-paying occupations, or if pay structures within occupations are inequitable across gender, then women will have lower average earnings than men. Across countries, men and women cluster in different occupations and industries, and this labor-market feature is true for Vietnamese workers as well.

To examine employment and earnings, the analysis retained all individuals of prime working age (ages 15-65) with measured values for the key indicators. To construct the sample for the wage regressions, the analysis further restricted the full sample to all individuals with positive annual cash earnings. Nominal values of annual earnings from the primary job were deflated with both a regional deflator provided in the VHLSS and with the annual consumer price index published by Viet Nam's General Statistics Office. When feasible, the analysis compares results from 2012 with those of earlier years to detect patterns over time.

General Characteristics of Workers

Both men and women have experienced a substantial increase in real earnings since 2004, but men's earnings rose proportionately more. Continued segregation by occupation and industry appears to be a major culprit behind the growing gender pay gap.

Table 3-1 provides sample means of the variables used in the analysis of employment and compensation. The sample statistics are demarcated by gender, year, and by the sample used in

the wage analysis and the full sample of all individuals of working age. The table shows that real annual earnings have increased substantially over time for both men and women between 2004 and 2012. The increase was sharper for men than women, with men's earnings rising by more than 80 percent compared to the 68 percent increase for women. Hence women's relative earnings have fallen over time, a pattern that is explored in further detail below. Also of note in the sample means is the relatively high incidence of part time work among female workers. In 2012, 14 percent of all female wage workers worked part-time, compared to just 10 percent of men, a gap that has not budged since 2004.

For the education variables, Table 3-1 shows that women have made considerable progress in closing the education gap relative to men, but there are still gender gaps at every level. In 2012, while 41 percent of all men of working age had attended or completed upper secondary school, this was true for just 36 percent of women, and there was a gap of similar magnitude for lower secondary school. At the other end of the spectrum, 6 percent of all women of working age were illiterate compared to 4 percent of men, a gap that has decreased just slightly since 2004. Women are also relatively over-represented compared to men among individuals having just a primary school education. Moreover, obtaining technical training at some sort of a vocational school or technical program is not unusual, with approximately 20 percent of male and female paid employees having some sort of a technical education. However, the percentage of women with a technical education has fallen by more than 2 percentage points since 2004 while it has risen for men. This is a cause for concern given the emphasis placed on technical training in the government's workforce development strategy.

Unlike many other Asia Pacific economies that have seen a recent decline in the importance of the manufacturing sector as a source of employment, manufacturing has seen

growing employment shares over time in Viet Nam. As shown in Table 3-1, female wage workers saw an increasing employment share in manufacturing over time, from 33 to 36 percent, while it rose very slightly for men, from 20.7 percent to 21.0 percent. Also in contrast to many of its Asian neighbors, the agricultural sector has remained the largest sector of employment, with 47 percent of all women of working age reporting agriculture as a sector of employment in 2012 and 42 percent of all men of working age. Despite the higher proportion for women and unlike some of its regional neighbors, Viet Nam has not seen a feminization of its agricultural sector over time, a point that is explored more closely in the next sub-section. Finally, among the other variables, the majority of workers in Viet Nam live in rural areas, especially women. About two thirds of men and women in the samples are married, and a small percentage of the workforce is not Kinh or Chinese. Finally, the number of pre-school (0-5 years) aged children in the household has declined slightly over time.

Structure of Employment by Industrial Sector

Viet Nam has seen a marked structural shift in employment from agriculture to industry and services in the last 15 years, with men and women leaving agriculture at a comparable pace.

As shown in Table 3-2, since 2004 there has been a substantial decline in the percentage of workers, paid and unpaid, who report agriculture as their primary industry of employment. In 2004, 56 percent of all women and 51 percent of men worked in agriculture, compared to 47 percent of women and 42 percent of men just eight years later. This structural change is consistent with longer-term patterns documented in World Bank (2014). Yet unlike some of its regional neighbors, men have not been leaving agriculture at a significantly higher pace than women, so Viet Nam has not experienced a feminization of agriculture. If anything, the

agricultural sector workforce has become slightly less feminized, with the share of all agricultural workers who are female dropping from 53 percent in 2004 to 52 percent in 2012.

As women and men have left agriculture, they have entered into mining/construction/utilities, manufacturing, and services. Of interest, women have entered manufacturing at a faster rate than men, leading to an increase in the percentage of workers who are female from 52 percent in 2004 to 55 percent in 2012. Although relatively few women work in mining/construction/utilities, their representation in this sector has risen somewhat, from 11 percent in 2004 to 14 percent in 2012, while their representation in services has declined slightly.

Workforce Development

Although the gender gap in educational attainment among individuals of working age has begun to close, women are less likely to have technical training than men and more likely to study social sciences and the humanities, while men are more like to study engineering at the tertiary level.

Commentators often attribute the persistence of gender occupational segregation to differences in vocational and technical training more than to formal education. As was shown in Table 3-1, in 2012, 16 percent of female paid employees and 18 percent of male paid employees had some sort of a technical education. However, this percentage for women marked a decrease since 2004, while relative more men have been obtaining technical training. This decline for women is problematic given the emphasis on technical training as a qualification for meaningful jobs in Viet Nam.

While the male and female distributions in educational attainment among working-age individuals has begun to look more similar, the distributions in fields of study still show remarkably gendered patterns (Table 3-3). Note that the 2012 VHLSS did not ask respondents

about field of study while earlier waves of the VHLSS did ask this question.¹ In order to compare results on field of study over time, the analysis uses data for Viet Nam from UNESCO (2015). The table shows that among students enrolled in tertiary education, men are considerably more likely to specialize in engineering, manufacturing, construction, and services, while women are more likely to specialize in social sciences, education, and humanities and the arts. In particular, 30 percent of men compared to just 18 percent of women enroll in tertiary degree programs with a focus on engineering, manufacturing, and construction. In contrast, 35 percent of women concentrate in social sciences, business and law, compared to 28 percent of men. These disparate distributions were also apparent in 2008, with even more men clustering in engineering fields. Only in agriculture and health and welfare do we see a similar degree of clustering among men and women; however, these fields do not draw as many students in absolute numbers as some of the more gendered fields.

The clustering across fields is also reflected in the gender composition of each field. While most fields have a composition that is roughly half female, only a third of engineering students, and just 17 percent of students in services are female. Yet there has been a defeminization over time in humanities and the arts: in 2008, 68 percent of students in this field were female, dropping down to 50 percent in 2013. Education, the social sciences, and health and welfare have also a decline since 2008, albeit somewhat smaller, in the percent of students who are female.

Industrial and Occupational Segregation

A major source of gender disparities in earnings is gender differences in occupation and industry distributions. Globally, women are often clustered in lower-paying jobs while men

¹ The 2006 VHLSS was the last wave of the survey that did ask respondents about field of study in tertiary schooling.

cluster in higher paying positions. This source of gender disparity is explored in Table 3-4 and in Figures 3-1 and 3-2, which show employment shares for women and men across major industry and occupation categories that are ranked according to the average total annual pay. Note that these figures are for all workers with positive cash earnings. For example, in 2012, the highest paying occupational category was executives and managers, and a relatively higher percentage of men than women are employed in this category. At the other extreme, agriculture is the lowest paying industry and occupation category, yet a slightly higher percentage of men than women with positive cash earnings are employed in the agriculture sector and as agricultural workers. Note again that once we add unpaid workers to the sample, proportionately more women work in agriculture compared to men as seen in the earlier tables. Women have seen some progress over time in some areas, with an increased representation in business services, the highest paying industry. Of course an important issue is that relatively more privileged women have access to these jobs in business services, especially women who are better educated and live in urban areas and can take advantage of the better-paying opportunities. Women also became relatively more concentrated in manufacturing, the third lowest paying industry and one that draws both skilled and unskilled workers. To the extent that Viet Nam's manufacturing sector has decent jobs with good working conditions, the growing concentration of women in manufacturing could also be seen as progress for women in realizing new employment opportunities outside of agriculture.

Viet Nam's employment patterns by occupation resemble those of other industrializing countries, with relatively more clustering of men among skilled and unskilled production workers and among executives and managers, the latter being the highest paying occupational category. While 40 percent of all male workers with positive cash earnings are employed in

skilled production occupations, just 28 percent of female workers have jobs in these occupational categories. This disparity in the occupational distribution has a direct bearing on the overall gender wage gap since skilled manual work usually pays higher wages compared to unskilled manual work. This gender gap in the proportion of all paid workers who are employed as skilled production workers has actually widened since 2004. In contrast, just 11 percent of male workers hold jobs as sales and services workers – an occupation category that pays considerably less than skilled production work – compared to 18 percent of female workers. This is another gender gap that has grown since 2004 and has likely contributed to increasing earnings differentials between men and women. That said, women have seen quite some progress in attaining jobs as science professionals and technicians, the second highest paying category in 2012, with an increase in the occupational distribution from 9 percent to 15 percent.

Household Work

Women perform more hours of housework than men, with the largest gender differences among cohorts in which women are of prime child-bearing and child-rearing age.

Although the questionnaires for the 2010 and 2012 VHLSS no longer contained a question about hours of housework per day, gender norms around housework around the world change slowly and we can still learn from patterns in the 2008 VHLSS when the survey still included this question. As shown in Table 3-5, consistent with other countries and with earlier years of the VHLSS, housework remains the primary responsibility of women. For example, in the urban sector, about half of men in their twenties did no housework at all. For those men in their twenties who did do housework, they did about an hour less per day than women in the same age-group. As they aged, more urban men started participating in the housework, but still a third of men in their fifties did nothing, and those who did, put in at least an hour less than

women per day. These gender differences begin at a very young age in urban households. In particular, among children aged 6 to 10, 92 percent of boys did no housework at all compared to 83 percent of girls, and in the next age bracket (11 to 14), still two thirds of boys were doing no housework at all compared to less than one half of girls. One explanation for larger amount of housework by girls might be that they are less likely to be in school. However, in Viet Nam, boys and girls are equally likely to be in school. Thus, the additional housework performed by girls appears to be over and above their attendance in schools. Note that the survey definition of housework includes cleaning, shopping, cooking, washing, collecting water and wood, and performing repair work in the house. Because the definition does not include childcare, and because women, on average, perform more hours of childcare, the measures documented above are likely to be under-estimates.

Rural sector residents perform a slightly lower average number of hours of housework per day compared to the urban sector, with urban men performing about 0.1 hours more per day and urban women performing about 0.4 hours more per day than their urban counterparts. As with the urban sector, the excess housework performed by women relative to men in the rural sector is most pronounced among women in their prime child-bearing and child-rearing years. Even though hours devoted to childcare are not directly included in these estimates, raising children involves additional time spent cooking, cleaning, and shopping for food. This result goes counter to many low-income countries where women in rural areas do more housework than women in urban areas, largely due to water and fuel collection. One explanation is that most of Vietnam's population is connected to the national electrical grid regardless of urban or rural status, so rural women are on average spending little if any time collecting fuel. As for water collection, even within Viet Nam's lowest expenditure quintile, more than 70 percent of

households have access to an improved water source of some kind, and even those that do are spending time treating and boiling their water. Another explanation may be that the question about housework is not asked rigorously, so that urban and rural women may consider their time devoted to other types of housework differently.

This relatively higher amount of household work performed in urban areas, especially for women, is consistent with the finding that relatively more hours of housework per day are performed by individuals in higher expenditure quintiles, especially for women (Figure 3-3). Moreover, the gradient in hours spent per day doing housework across expenditure quintiles is especially steep for women, which means that the gender gap is wider for higher wealthier households. Similar lessons apply for those who do no housework at all: there are fewer women in higher expenditure quintiles who perform no housework at all compared to women in lower expenditure quintiles, while the opposite is true for men. So there is also a wider gender gap in those who do no housework at all in the higher expenditure quintiles.

Relative to patterns indicated in reports of the 2004 and 2006 VHLSS (Lee 2004, 2006), the average number of hours of housework performed by men and women has changed very little, while the percentage of men who did no housework at all declined marginally, from 45 percent in 2004 to 44 percent in 2008. These continued high shares of rural and urban men across age groups who perform no housework at all, and relatively few hours of housework for those men who do some, indicate the persistence of long-standing but punitive norms relegating this unvalued work to women. This argument is further supported with evidence in Vu (2015) that the gender gap in hours of housework is persistent across generations in the face of rapid structural change in Viet Nam's economy. Women's relatively greater time spent performing household work has also persisted despite the introduction of labor-saving appliances such as

microwave ovens and gas cookers. If anything, these appliances have led to a reduction in time spent by men doing housework (Vu 2015).

Wage-Employment and Self-Employment

The incidence of wage-employment has continued to grow for urban and rural workers, but self-employment remains the dominant economic activity in the rural sector. Differences in region, ethnicity, and schooling have played a role in determining who has greater access to new wage-employment opportunities.

As reported in Table 3-6, one third of adult men held a wage-generating job as their primary job in 2012, compared to 26 percent of adult women; both of these shares marked large increases since the 1990s, when relatively few individuals of working age were wage workers or salaried workers. In contrast, agricultural self-employment remained the largest sector of employment for women and men. This reliance on agricultural self-employment was considerably stronger in the rural sector compared to the urban sector, especially for women. A total of 57 percent of rural women and 49 percent of rural men relied on agricultural self-employment as their primary source of employment in 2012. These percentages have decreased a little since 2008, especially for women, resulting in a slightly smaller gender gap in the clustering of rural women and men in agricultural self-employment (Rodgers and Menon 2010). Hence overall, men's and women's self-employment was more concentrated in agricultural work rather than non-agricultural work. Not surprisingly, this emphasis on agricultural self-employment stemmed mainly from the rural sector, but even in urban areas, about 12 percent of all employed men and women worked in agricultural self-employment as their primary job in the past year. In addition, overall, men's and women's urban sector employment was heavily weighted toward wage-employment: 59 percent of urban men held jobs in wage-employment as

compared to half of urban women. In the rural sector, wage-employment was also more common for men than women, while women were more likely to hold jobs in agricultural self-employment.

Moreover, men in the Kinh/Chinese ethnic groups are more likely to hold jobs in wage-employment as compared to agricultural self-employment, while even in this majority ethnic group, women are still more likely to be self-employed in agricultural activities. Within the ethnic minorities there is a much higher incidence of agricultural self-employment as compared to wage-employment, especially for women. Moreover, there is an enormous differential – by a factor of more than two – between Kinh/Chinese individuals and ethnic minority individuals in agricultural self-employment. In particular, just 38 percent of Kinh/Chinese women are engaged in agricultural self-employment as compared to 80 percent of ethnic minority women. The differentials for men are similar, and neither of these ethnic group disparities for women and men have narrowed since 2008 (Rodgers and Menon 2010).

Types of employment vary considerably by marital status, with individuals who are single showing a higher tendency toward wage-employment compared to their married counterparts. Age plays a large role in explaining these patterns, with younger people more likely to be both single and wage-employed. For example, the average age of female wage workers who are single is 29, compared to 36 for female wage workers who are married. Types of employment also vary by household structure and gender, where women who have preschool children present are more likely to be engaged in wage employment than women without preschool children present, and a similar conclusion holds for men. A likely explanation is the economic necessity of holding a fulltime wage-based job in order to support a young family. In

fact, both women and men who have preschool children at home are somewhat more likely to work full-time relative to their counterparts without preschool children at home.

Interestingly, types of employment across education groups suggests that women with little to no schooling are at a larger disadvantage in obtaining wage-paying jobs compared to women with more schooling, but this gradient is not quite as steep for men. For example, just 13 percent of uneducated women have access to wage-employment compared to 48 percent of women with upper secondary schooling, while 22 percent of uneducated men have wage-paying jobs compared to 49 percent of men with upper secondary schooling. The implication is that women face a higher standard in attaining wage-paying jobs, or they face gendered barriers in some industries that do employ uneducated workers. A possible reason is that uneducated men may have access to wage-paying jobs involving hard physical labor, such as in the construction and transportation industries, while these jobs are less open to women. Both men and women with college and university educations are extremely likely to hold jobs in wage-employment compared to their less educated counterparts. Hence there is a large premium for having more years of education in terms of gaining access to wage-employment for both men and women. A similar conclusion can be made for individuals with higher socioeconomic status, as measured by expenditure quintiles.

Earnings for Wage Workers and the Self Employed

Women in agricultural self-employment are at the bottom rung of the ladder when it comes to average annual earnings, with most women in this sector earning next to nothing. Wage and salaried employment brings the highest average compensation, especially for men.

Table 3-7, which includes workers with zero cash earnings who report a sector of employment, shows that male wage workers earn considerably more per year than female

workers, while women who work in agricultural self-employment fall at the other end of the spectrum. In particular, among all people who report that they hold wage jobs, women earn on average VND 14,795,000 per year while men earn VND 19,208,000 per year. In contrast, women in agricultural self-employment earn just VND 180,000 per year. Hence self-employment in agriculture continues to be one of the least well-paid and secure options for women. And for both genders, those who are more disadvantaged in their total annual earnings from their primary jobs tend to be individuals from ethnic minority groups, those with less education, and those in lower socioeconomic status groups as measured by expenditure shares. There are a few exceptions to this pattern, however. Ethnic minority women have an earnings advantage over Kinh/Chinese women in non-agricultural self-employment (VND 3,253,000 compared to 2,288,000), with ethnic minority men do not have this advantage. Closer inspection of the underlying data indicates that the advantage for ethnic minority women appears to be more than a statistical anomaly, suggesting that ethnic minority women specialize in certain types of non-agricultural self-employment that are more remunerative than those types in which other women and men engage. Another exception is a dip for the fifth quantile for both women and men for average earnings in agricultural self-employment. In this case, small cell sizes are causing some of the variability in the results, because relatively few individuals in the top expenditure quintile work in agricultural self-employment.

The biggest reason for the enormous gap between earnings in wage employment and earnings in self-employment in Table 3-7 is that the sample includes individuals who report that they are working but do not have positive cash earnings, and large proportions of workers who are self-employed in agriculture and non-agriculture are unpaid. Table 3-8 examines just how large these proportions are. The table shows that in each of the three major employment

categories - wage workers, agricultural self-employment, and non-agricultural self-employment - virtually all wage workers earn positive cash wages. Just a handful of workers (17 out of 20,745) reported that they are wage workers and had zero cash earnings in the past year. In contrast, about 4 percent of women and 7 percent of men in agricultural self-employment had positive cash earnings, while the rest of the workers in this category were unpaid. Non-agricultural self-employment proves to be a more remunerative source of employment, especially for men: 41 percent of men in non-agricultural self-employment are paid, compared to 22 percent of women. There is also greater variation across demographic groups in the percentage of workers who are paid in non-agricultural self-employment compared to the other two categories.

Finally, Table 3-9 reports the average annual earnings for just workers who earned positive cash wages, excluding all unpaid workers. The overall conclusions are similar to those already discussed: agricultural self-employment continues to be one of the least well-paid options for women. And for both women and men, those with the lowest earnings tend to be individuals from ethnic minority groups, with less education, and in lower expenditure quintiles.

Decomposition of the Gender Earnings Gap

For a given year, the gender earnings gap can be decomposed into an explained portion and an unexplained portion. Using a fairly standard application of the Oaxaca-Blinder procedure, this study decomposed the male-female earnings gap in each year into a portion explained by average group differences in productivity characteristics and a residual portion that is commonly attributed to discrimination (Oaxaca 1973; Blinder 1973). The explained gap is the portion of the gap attributed to gender differences in measured productivity characteristics, and the residual gap is the portion attributed to gender differences in market returns to those characteristics. To perform the decomposition, a human capital earnings function is estimated

for male employees in each year, and the coefficients from the male regression are used to calculate predicted log earnings for male and female workers. An argument for using male coefficients (the approach followed by most studies of this type in the literature) is that they more accurately reflect competitive returns to measured characteristics than do female coefficients. Residual log earnings are simply the difference between actual log earnings and predicted log earnings.

The determinants of real earnings for men are expressed as follows:

$$E_i = a + \beta_1 T_i + \beta_2 Edu_i + \beta_3 PEx_i + \beta_4 Ind/Occ_i + \beta_5 X_i + \vartheta_i \quad (1)$$

where i denotes an employee. The dependent variable E_i represents the real value of cash earnings, and the remaining variables are individual and household characteristics that influence earnings. These characteristics include time inputs such as days per month and months per year (T_i); a set of dummy variables for educational attainment (Edu_i), and a measure of potential experience and experience squared (PEx_i). The matrix Ind/Occ_i represents controls for industries and occupations. The matrix X_i includes geographic indicators such as urban residence and region of residence, marital status, membership in a minority ethnic group, and the number of pre-school aged children (0-5 years) in the household. Most of these variables are fairly standard control variables in wage regressions across countries. Finally, the term ϑ_i is an individual-specific idiosyncratic error term. All regressions are weighted using sample weights provided in the relevant data sources, and the decomposition is performed using the sample of all workers with positive cash earnings for each year.

Results in Table 3-10 show that female/male earnings ratio has slowly and steadily declined from 87 percent in 2004 to 80 percent in 2012. Even with the decline, women's relative earnings are still relatively high compared with much of the Asia-Pacific region (ILO 2015).

Moreover, the residual gender wage gap in Viet Nam showed a noticeable jump in 2008, from 14.7 to 19.2 log points (x100), and has remained high in recent years relative to the amount of the gap that can be explained by observable characteristics. Even in 2012, less than a quarter of the total wage gap could be explained by observable characteristics.

The relatively large residual wage gap in the 2000s is consistent with findings for Viet Nam in the 1990s in Liu (2004). Most of the gender pay gap that is explained by observable characteristics is coming from gender differences in the distribution of occupations and industries. Gender differences in time inputs also account for a substantial portion of the explained gap, especially with more women working part-time than men as shown in Table 3-1. The most likely explanation for women's relative scarcity in time for paid work is the time they spend on housework, childcare, and unpaid work in household enterprises. A similar argument is made in Pierre (2012), with findings suggesting that women who married and have children are more likely than men to work in jobs – especially in the informal sector - that have more flexible working hours. Longstanding gender norms around the division of labor in the household help to explain these inequities in time use, with results in Teerawichitchainan *et al.* (2010) indicating that despite several decades of sweeping economic reforms in Viet Nam, women's increased educational attainment, and even government efforts to transform gender relations toward socialist ideals, married women have continued to perform the bulk of unpaid domestic work.

IV. Health

Despite the importance of health for the economic well-being of the individual and the household, sharp differences still exist in measures of health across Viet Nam's regions, socioeconomic status, ethnic groups, and gender. Viet Nam's economic growth and concerted government efforts have led to sustained improvements in social indicators, especially in terms

of health status and access to health services. Consistent with other countries as they move upward on the development ladder, Viet Nam has seen reductions in fertility rates, child mortality, and maternal mortality, as well as increases in life expectancy. Yet progress has remained uneven across regions, with a continued need to provide more health care services in remote areas, improve the quality of provision, and ensure affordable care. Not only are people entitled to health care services as a basic human right, but health status also contributes to worker productivity and sustained economic development. Women's reproductive health remains a top policy priority, and provision of health care services requires special attention to the time constraints involved with childcare that can limit women's ability to access health care services.

This section focuses on gender differences in access to health services. Other dimensions of inequality including those relating to differences across age groups, ethnicity, region, expenditure groups, and type of health insurance are also revealed. Results suggest that some sectors of the country have been slower in practice to provide widely-accessible health care services.

Access to Health Care

Less than half of the population visited a health care provider in the past year, with greater percentages of women than men seeking a health care provider.

As shown in Table 4-1, among all individuals, 44 percent of women and 35 percent of men visited some sort of a health care worker or center. This gender difference in seeking health care for women in 2012 seems to have grown since 2008, when 36 percent of women and 30 percent of men were sick in the past twelve months and visited a health care provider (Rodgers and Menon 2010). The greater incidence for women also persists across adulthood, but among children below the age of 15, boys are more likely to visit a health care

provider. This higher male rate among children in access to health care comes from both the rural and urban sectors. Moreover, the likelihood of seeking health care when sick also exhibits a distinct U shape across age groups: the young and elderly are more likely to seek health care compared to members of the working-age population. The female advantage in access to health care observed across adults also holds for the Kinh/Chinese ethnic group as well as the ethnic minorities in aggregate. In terms of expenditure quintiles, the gender differences appear strongly across the distribution.

Although there are no clear patterns in whether men and women living in the rural sector are more or less likely to seek health care services, it does appear that some regions are better served with health facilities than others. The Mekong River Delta has the highest incidence of visits to health care providers for both women and men, followed by the Central Highlands and the South East Region. The lowest incidence of visits to health care providers is seen in the Northern Midlands and Mountain Area and the Red River Delta. The fact that some people visit health care providers less frequently may have to do with difficulty in reaching healthcare services (whether physically or because the services are too expensive), but it could also reflect a lack of demand. One measure of demand is the incidence of sickness, an indicator that was included in earlier waves of the VHLSS. Results from the 2008 VHLSS indicate that individuals from the Northern Midlands and Mountain area and the Red River Delta were somewhat less likely than other individuals to have reported being sick in the past month or year, but of the individuals who did report being sick, a higher percentage from the Northern Midlands and Mountain area and the Red River Delta missed school or work or were bedridden due to their illness (Rodgers and Menon 2010). Thus the demand for healthcare services in these areas seems to have been as great as other areas, suggesting that the lower incidence of visiting health care

providers in the Northern Midlands and Mountain area and the Red River Delta was due to difficulty in reaching the services.

Health Insurance Coverage

More than half of the population has health insurance coverage, but there are considerable gaps across groups with difference socioeconomic status.

Health insurance serves as an important determinant of the extent to which people seek health care. People with higher rates of health insurance coverage tend to be children and elders. Student health insurance is considered to be voluntary, yet coverage rates are still higher than other types of insurance in both the rural and urban sectors. The female advantage in access to health care services holds for access to health insurance coverage, especially for voluntary health insurance; about 65 percent of women have health insurance compared to 64 percent of men (Table 4-2).

Types of Services Utilized

Individuals living in urban areas are more likely to visit hospitals and private clinics compared to their rural counterparts, while commune health centers are especially important in rural areas.

About 60 percent of urban men and women sought care in some type of a hospital when they were sick or required some other type of medical attention, including preventive care (Table 4-3). In comparison, approximately 40 percent of rural men and women sought care in a hospital. Rural men and women were more likely to seek care from commune health centers compared to their urban counterparts. Private clinics also provided a considerable proportion of respondents with health care services, with a larger share in urban areas (20 percent) compared to rural areas (15 percent). Other private health services made up for some of this difference between urban

and rural areas in private providers, with private health services accounting for a larger proportion of the rural sector compared to urban. Gender differences in the types of services were not as striking as the urban and rural differences. Men and women showed comparable patterns in terms of the dominance of hospital usage and private clinics in urban areas, and the relatively greater reliance on commune health clinics and private health services in rural areas. Within the urban sector, men were slightly more likely than women to use provincial hospitals while women were more likely to use district hospitals. Within the rural sector, none of the gender differences exceeded a percentage point.

Reasons for Seeking Health Care

Treatment for an illness or injury constituted the most frequent reason for seeking health care for urban and rural individuals, with women showing a relatively greater incidence than men of seeking preventative care.

In urban areas, seeking treatment constituted the reason for 71 percent of men's visits to health care providers, while treatment served as the reason for 67 percent of women's visits (Table 4-4). Women's greater likelihood in seeking preventive care and meeting their reproductive health needs made up the difference. This difference is especially pronounced for adults in the 20-49 age bracket, which includes women in the prime child bearing years. Also in the urban sector, men show a slightly greater proportion of health care visits devoted to vaccinations compared to women.

Rural sector patterns are similar to those of the urban sector, with an even greater percentage of health care visits devoted to treatment for illness or injury (76 percent of visits for men, and 70 percent for women). In contrast, check-ups, and consulting make up for relatively fewer visits to rural sector health care providers, and there is no discernable difference between

the rural and urban sectors in terms of the percentage of visits devoted to women's reproductive health.

Health Expenditures

In aggregate, urban men had the highest expenditures on visits to health care providers relative to urban women and relative to all individuals, on average, in the rural sector.

Moreover, absolute expenditures on inpatient and outpatient treatments rose with age and socioeconomic status.

Table 4-5 shows the gender-disaggregated patterns for expenditures on outpatient treatment (expenses for medical service, treatment, and other costs such as bonus for doctors, equipment, and transportation) and for inpatient treatment (expenses for additional medicine requirement, equipment, and transport) in the last twelve months. Note that individuals with insurance still report incurring non-zero expenses, which is expected if there are restrictions under insurance contracts that limit the amount of the total expenses for procedures and medications covered by insurance. The data indicate that on average, health expenses for urban men and rural men are higher than for their female counterparts. Among all age groups except the youngest, expenditures for women in rural areas are consistently lower than those for men; however, such trends are less clear in urban settings. There is a large disparity between the Kinh/Chinese and ethnic minorities in both the rural and urban sectors, with Kinh/Chinese men and women spending at least twice as much on visits to health care providers since they can afford it. In terms of expenditure quintiles, there is a steep gradient in health care expenditures moving from the lowest to the highest expenditure groups, as well as substantial gender disparity (favoring men) in health expenditures in the richest quantile in both urban and rural areas. Finally, by health care services, average expenditures are relatively higher for women in centers

and clinics, while men spend more on hospitals and on other facilities (traditional practitioners and private health services). If hospitalization represents more advanced care, men have an advantage over women in terms of spending on this type of advanced care in both urban and rural areas.

Finally, Table 4-5 shows how household expenditures on health care services differ by whether the providers are public or private. While urban and rural men spend more than twice as much on public health care services compared to private health care services, the differential between public and private is less than double for women, implying that women have a relatively stronger preference for private services than men. This preference is also seen in the absolute expenditure levels in both the rural and urban sectors, when women spend more on private health care services than men. One potential explanation for the gender difference is that women have a stronger preference to pay less out of pocket for each treatment (or women are relatively more budget constrained), and, as documented in Nguyen *et al.* (2002), the per treatment contacts at private providers are actually lower than at public providers. Women's stronger preference for private services than men appears to be a change since 1998, when the Nguyen *et al.* analysis indicated there was no difference between men and women in the use of private versus public health providers.

V. Data Issues and Needs

Continued efforts are needed to collect data that can be used to substantiate gender-aware policy reforms. The quality of this data can be improved with a set of changes to future waves of the VHLSS. Recommendations for changes in the VHLSS include: (1) Add back in the question about hours spent on housework per day, which was dropped beginning with the 2010 VHLSS; (2) Add back in the question about field of study among students with tertiary education, which

was dropped beginning with the 2008 VHLSS; (3) Add back in the three questions about illness in the past 4 weeks, illness in the past 12 months, and needing to stay in bed or miss school/work due to illness in the past 12 months, all of which were dropped beginning with the 2010 VHLSS; (4) Add back in the question about health expenses covered by health insurance, which was dropped beginning with the 2010 VHLSS; (5) Change the earnings question from earnings per year to earnings per month or earnings per week; (6) Add new questions that separate self-employment into own-account workers and unpaid family workers which means conforming to internationally defined standards; (7) Make the questions about land use certificates, asked in 2004 and 2008, a regular part of the VHLSS; and (8) Add new questions about asset ownership by individuals in the household (so asset ownership can be disaggregated by gender).

VI. Conclusion

This study has documented that Viet Nam has made concerted progress toward achieving greater gender equality in health and education, yet major gaps remain in the labor market. Persistent inequities in the labor market are partially explained by structural impediments, especially in terms of women's concentration in agricultural self-employment. This type of work is usually insecure and has very little if any pecuniary compensation. Traditional norms and beliefs that undervalue women's work and steer them into specific fields of study and low-paid jobs, as documented in this report, are another barrier to women's advancement in the labor market. Another structural impediment preventing the closure of gender gaps in the labor market is women's relatively larger unpaid work burden as compared to men. As is true for many other countries, women's relative time poverty in Viet Nam is neither comprehensively nor systematically documented. Without better data and government policies or employer actions that address women's unpaid housework and caring responsibilities, competition in Viet Nam's

labor market will continue to occur on an uneven playing field as women's greater work burdens at home will prevent them from maintaining labor force attachment levels equal to those of men.

While poverty reduction involves a multidimensional approach, results in this paper indicate that greater access to wage-employment warrants an important component of the mix. Differences in ethnicity, wealth, and schooling have played a role in determining who has greater access to new wage-employment opportunities, and women have a considerably lower likelihood than men of engaging in wage-employment. These findings point to the importance of creating more wage-employment and productive self-employment opportunities through policy reforms that incentivize opportunities to switch from unpaid work in marginally productive activities to more remunerative work in productive activities.

This objective becomes all the more important when one considers that when the very poor are more constrained in their economic choices by the market environment, lack of infrastructure, and insufficient sources of affordable credit, then small-scale entrepreneurship serves as one of the primary vehicles for income generation (Banerjee and Duflo 2007). Public and non-governmental institutions could play key roles by investing more in infrastructure and providing subsidies and support for the marketing and sale of products created by female-operated businesses. Such policies would play an especially useful role in contexts where female entrepreneurs may be isolated from informal networks that serve to provide support and information on new business strategies.

Viet Nam's wage-employment patterns by industry and occupation resemble those of other low-income countries, with relatively more clustering of men in mining, utilities, and construction, and relatively more women in retail and social services. Moreover, men are more concentrated in skilled occupations and women are more concentrated in unskilled occupations.

In terms of Viet Nam's continued transition away from agricultural production to an industrialized economy, support of the service sector can pull men and women out of agricultural self-employment into larger enterprises that generate additional wage-based employment creation.

Also important are measures to improve the productivity and earning capacity of those women who remain in agriculture. Transformative policies supporting women's employment must also pay close attention to the needs of women farmers, especially given the relatively greater dependence of women in Viet Nam on earning their livelihoods from agriculture. More broadly, technological progress and investment in agriculture will help to promote greater diversification and agricultural productivity. However, these and more targeted reforms need to address women's relatively limited access to assets, information, and training compared to their male counterparts.

Stronger land-use rights for women will also help to improve the productivity of women farmers and strengthen their ability to contribute to the economic viability of households. Vietnam has already engaged in one of the largest land titling programs in the world, which has enabled households across the country to have land-use rights. Regression results in Menon and Rodgers (2015) indicate that land-use rights held exclusively by women have, on balance, beneficial effects on household expenditures, self-employment by women and the incidence of household poverty, and jointly-held land-use rights are also found to bring beneficial effects in reducing poverty. Moreover, interview results indicate that women who own land are more likely to be employed outside the home and feel that their land ownership improved their economic status. These results thus provide a clear rationale for strengthening procedures to encourage titling to land for women.

A lesson from the Vietnam land reform is that rights need to be guaranteed in such a way that women can exchange, lease, bequeath, sell or mortgage their land in an enforceable manner. Policy recommendations for Vietnam and other countries with similar land titling initiatives center on improvements in the administration and management of land law reforms, especially when implementation results in gender disparities in the issuance of land titles. Such changes include improving the administrative capacity at the local level to manage land-title applications and approvals, increasing the dissemination of information to households about the process through which they acquire land titles, ensuring that men and women have the same legal retirement age, and promoting gender equity in the distribution of certificates. Such procedures may have more potent impacts if they are embedded in a broader framework that strengthens social safety nets and changes existing institutional structures that may currently disfavor women.

A potential gain from more land titles and formal recognition of property rights for women is improved productivity of women farmers, with greater access to formal credit, extension services, and subsidized inputs acting as key channels. Greater access to these inputs in turn will help to lower women's cultivation costs and bring them closer to those of men, who, because of poorly implemented laws or socio-cultural factors, often enjoy more state protection. Additional proposed reforms include integrated programs that enable women to group together and collectively buy land, as well as training in environmentally-sound farming techniques. Specialized agricultural extension services that cater to small-scale farms will also help to reach more women, as will greater policy focus on non-farm activities in rural areas conducted by small enterprises such as cooperatives and other community-based groups.

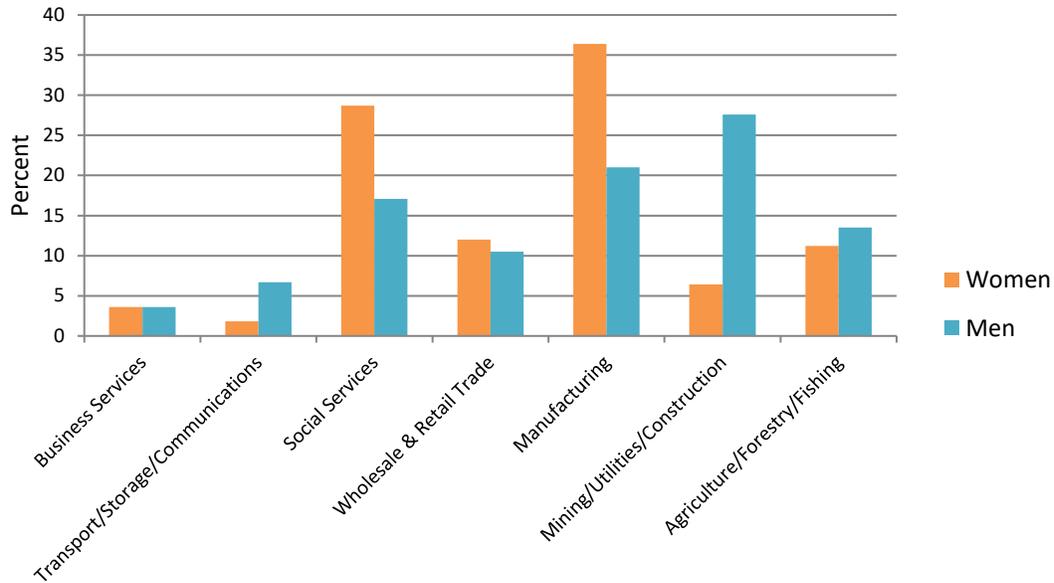
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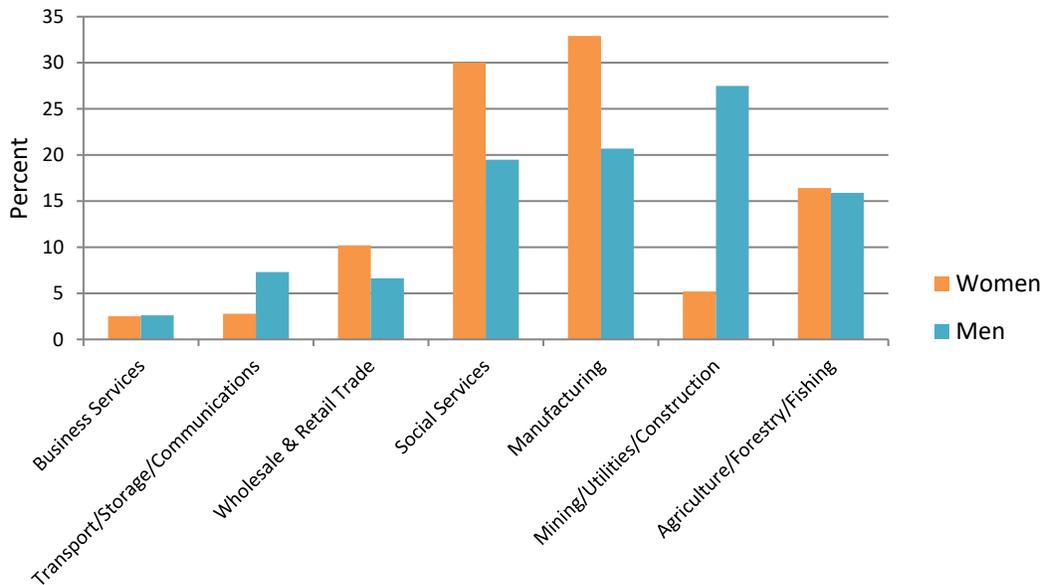
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Figure 3-1. Gender Employment Shares across Industries Ranked by Pay, 2012.

Panel A. Industry Employment Shares, 2012



Panel B. Industry Employment Shares, 2004

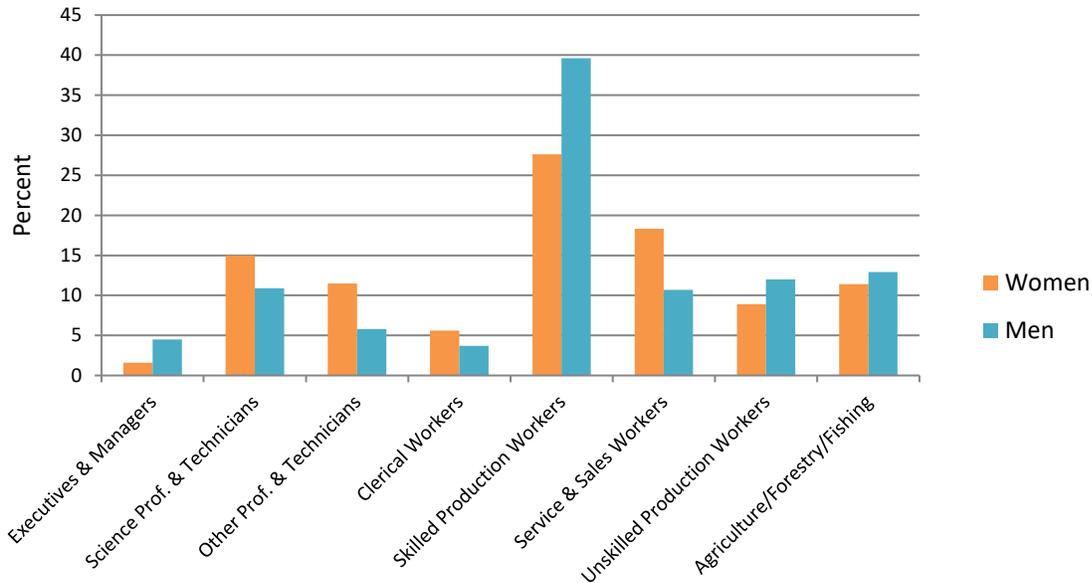


Note: Percentages are weighted and industries are ranked in descending order of total average annual earnings in each year. Data to generate the figures are found in Table 3-4.

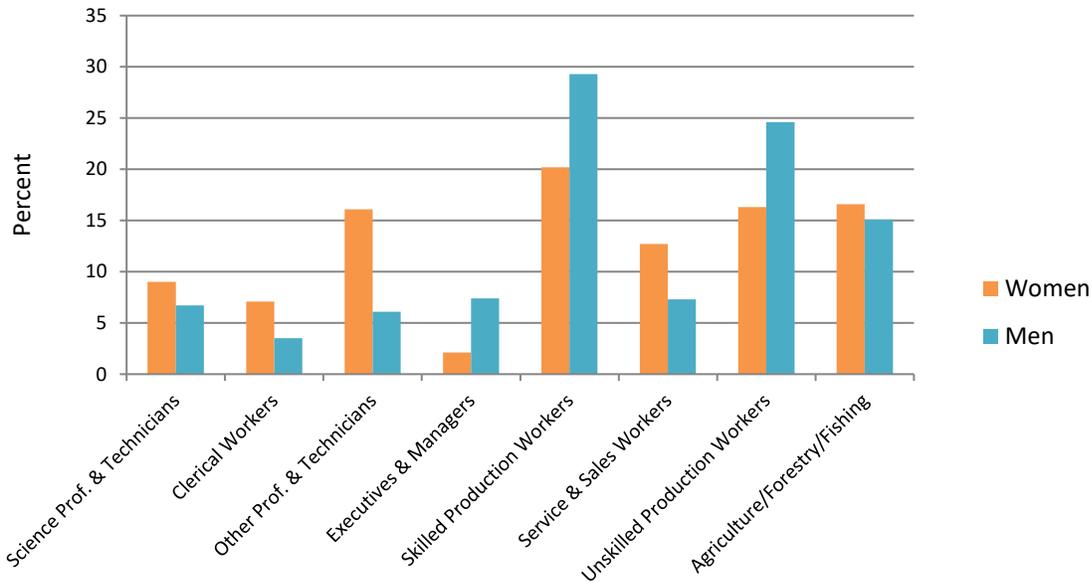
Source: GSO (2004, 2012) Viet Nam Household Living Standards Survey; author's calculations.

Figure 3-2. Gender Employment Shares across Occupations Ranked by Pay, 2012.

Panel A. Occupation Employment Shares, 2012



Panel B. Occupation Employment Shares, 2004

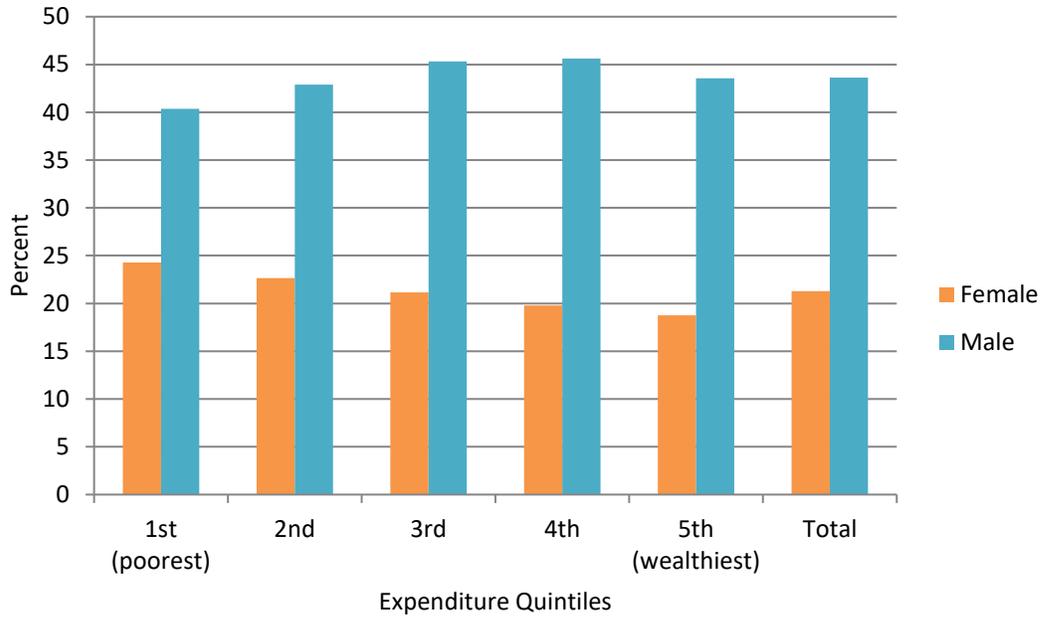


Note: Percentages are weighted and occupations are ranked in descending order of total average annual earnings in each year. Data to generate the figures are found in Table 3-4.

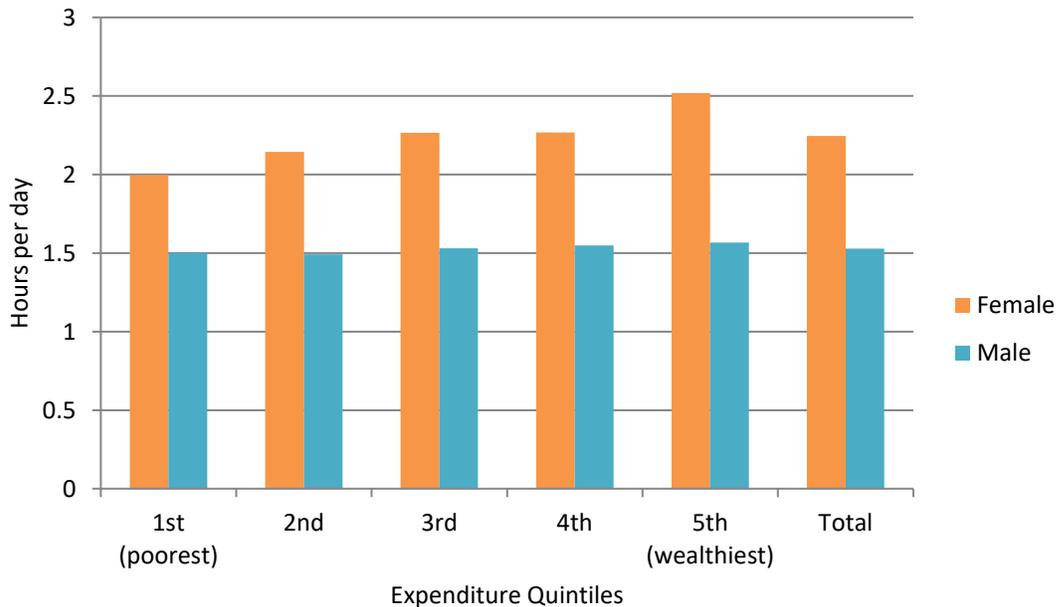
Source: GSO (2004, 2012) Viet Nam Household Living Standards Survey; author's calculations.

Figure 3-3. Hours per Day Spent on Housework by Expenditure Quintiles, 2008

Panel A. Percent Who Did No Housework



Panel B. Average Hours per Day Spent on Housework



Note: Weighted averages. Mean hours excludes those who did zero housework.

Source: GSO (2008) Viet Nam Household Living Standards Survey; author's calculations.

Table 2-1. Household Characteristics by Rural and Urban Sector, 2012.

<i>Indicator</i>	<i>Total</i>	<i>Rural</i>	<i>Urban</i>
(No. of households)	9,399	6,696	2,703
Region (%)			
Red River Delta	24.0	24.4	23.3
Northern Midlands and Mountain Area	12.9	14.9	8.3
North Central and Central Coastal Area	22.0	24.0	17.3
Central Highlands	5.4	5.5	5.3
South East	16.8	10.5	31.5
Mekong River Delta	18.8	20.7	14.4
Rural vs. Urban (%)			
Rural	70.0	100.0	0.0
Urban	30.0	0.0	100.0
Ethnicity (%)			
Kinh/Chinese	87.2	83.3	96.1
Ethnic minorities	12.9	16.7	4.0
Marital status of household head (%)			
Married	80.2	81.4	77.4
Widowed/Divorced/Separated/Unmarried	19.8	18.6	22.6
Age of household head (%)			
<=24	1.1	1.1	1.2
25-34	12.0	12.8	10.1
35-44	25.1	25.3	24.5
45-54	27.2	26.8	28.4
55-64	18.4	18.3	18.7
65 and older	16.2	15.8	17.1
Household structure (%)			
Nuclear	72.5	73.1	71.2
Vertical	20.0	20.3	19.5
Others	7.5	6.7	9.3
Gender of household head (%)			
Male	73.9	78.0	64.3
Female	26.2	22.0	35.7
% with adult male(s) 18+	90.9	90.8	91.0
Presence of children			
% with children age < 6	28.6	29.0	27.5
% with any children < 18	63.9	64.3	63.0
Presence of elders			
% with elders age 60+	31.6	31.9	30.9
Education of head (%)			
Illiterate	6.5	7.8	3.4
Some or completed primary school	27.7	30.9	20.2

Some or completed lower secondary school	38.7	42.8	29.3
Some or completed upper secondary school	27.1	18.6	47.1
LF status of head (%)			
Employed	84.8	88.4	76.4
Not Employed	15.2	11.6	23.7
Employment sector of head (%)			
Wage employment	23.0	13.8	47.9
Agriculture self-employment	53.7	67.2	17.6
Non-ag. self-employment	23.2	19.0	34.6
Household access to utilities (%)			
Has tap water (in house or community)	30.1	12.9	70.3
Has flush toilet	56.2	43.5	85.8
Has electricity	97.6	96.6	99.7
Has garbage collection	41.5	25.8	78.3
Mean age of household head (in years)	50.2	49.9	50.8
Mean household size (no. of individuals)	3.8	3.9	3.8
For all household members:			
Expenditure quintiles (%)			
1 st poorest	20.0	25.5	6.8
2 nd	20.0	24.0	10.6
3 rd	20.0	21.1	17.4
4 th	20.0	17.7	25.4
5 th wealthiest	20.0	11.7	39.8

Note: Percentages are weighted; sample sizes are unweighted totals.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 2-2. Characteristics of Male-Headed and Female-Headed Households, 2012.

	<i>Female-Headed</i>			<i>Male-Headed</i>		
	<i>Total</i>	<i>Married</i>	<i>Single</i>	<i>Total</i>	<i>Married</i>	<i>Single</i>
(No. of households)	2,332	887	1,445	7,067	6,737	330
Region (%)						
Red River Delta	23.6	22.3	24.4	24.2	24.7	15.9
Northern Midlands & Mountain Area	9.0	9.4	8.7	14.3	14.6	8.9
North Central & Central Coastal Area	19.0	17.4	20.0	23.1	23.5	15.5
Central Highlands	4.5	5.0	4.2	5.7	5.8	5.2
South East	23.8	26.4	22.1	14.3	13.3	34.1
Mekong River Delta	20.2	19.4	20.7	18.3	18.2	20.5
Rural vs. Urban (%)						
Rural	59.0	47.9	66.0	73.9	74.4	65.0
Urban	41.0	52.1	34.0	26.1	25.6	35.0
Ethnicity (%)						
Kinh/Chinese	92.2	93.9	91.0	85.4	85.0	93.0
Ethnic minorities	7.9	6.1	9.0	14.6	15.0	7.0
Marital status of head (%)						
Married	38.5	100.0	0.0	95.0	100.0	0.0
Widow/Div/Sep/Unmarried	61.5	0.0	100.0	5.0	0.0	100.0
Age of head (%)						
<=24	1.1	1.2	1.1	1.1	0.9	5.1
25-34	8.6	16.1	3.8	13.2	13.1	15.5
35-44	17.8	30.0	10.2	27.6	28.5	10.7
45-54	24.3	30.9	20.2	28.3	28.8	18.7
55-64	20.1	15.1	23.3	17.8	18.0	14.8
65 and older	28.0	6.7	41.4	12.0	10.8	35.1
Household structure (%)						
Nuclear	65.5	78.5	57.3	75.0	75.8	59.6
Vertical	24.2	15.6	29.6	18.6	18.5	18.8
Others	10.3	5.9	13.1	6.5	5.7	21.6
% with adult male(s) 18+	65.0	92.8	47.6	100.0	100.0	99.8
Presence of children						
% with children age < 6	24.5	30.2	20.9	30.0	30.9	12.6
% with any children < 18	56.1	69.5	47.7	66.7	68.5	33.3
Presence of elders						
% with elders age 60+	43.3	21.1	57.3	27.5	26.3	49.9
Education of head (%)						
Illiterate	11.5	3.3	16.6	4.7	4.5	8.9
Some or completed primary school	34.6	21.1	43.1	25.2	25.0	28.6

Some or completed lower secondary school	27.8	32.3	25.0	42.6	43.0	33.7
Some or completed upper secondary school	26.1	43.3	15.3	27.5	27.5	28.8
LF status of head (%)						
Employed	70.7	82.2	63.5	89.7	90.9	67.6
Not Employed	29.3	17.8	36.5	10.3	9.1	32.4
Employment sector of head (%)						
Wage employment	28.0	38.4	19.5	21.7	20.8	43.7
Agriculture self-employment	43.3	30.2	53.9	56.7	57.3	40.0
Non-ag. self-employment	28.8	31.5	26.5	21.7	21.9	16.2
Household access to utilities (%)						
Has tap water (in house or community)	40.5	49.9	34.6	26.4	26.0	33.8
Has flush toilet	61.8	72.7	54.9	54.2	54.1	55.9
Has electricity	98.8	99.2	98.5	97.1	97.1	97.2
Has garbage collection	49.7	59.3	43.7	38.6	38.3	44.7
Mean age hh head (yrs)	54.8	45.7	60.5	48.5	48.1	55.8
Mean household size (no.)	3.3	3.8	2.9	4.1	4.1	2.7
For all household members:						
Expenditure quintiles (%)						
1 st poorest	17.1	10.3	22.8	20.8	20.9	17.6
2 nd	17.7	12.4	22.1	20.7	20.7	18.4
3 rd	17.5	17.4	17.6	20.7	20.8	18.3
4 th	20.7	24.0	18.0	19.8	19.9	17.6
5 th wealthiest	27.0	36.0	19.6	18.0	17.7	28.1

Note: Percentages are weighted; sample sizes are unweighted totals.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 2-3. Household Expenditure Shares on Key Budgetary Items, 2012.

	<i>Health</i>	<i>Education</i>	<i>Durable Goods</i>	<i>Food</i>
Total	4.12	3.58	8.29	45.72
Residence				
rural	4.43	3.45	8.12	48.46
urban	3.40	3.87	8.70	39.35
Ethnicity				
Kinh/Chinese	4.35	3.79	8.50	44.00
Ethnic Minorities	2.60	2.14	6.84	57.40
Household Structure				
Female-headed	4.21	3.01	7.41	43.91
Male-headed	4.09	3.78	8.60	46.36
No children present	5.00	2.69	7.73	43.53
Children present	3.60	4.08	8.61	46.96
No elders present	3.48	4.20	8.78	46.00
Elders present	5.51	2.24	7.23	45.13
Education of HH Head				
Illiterate	4.53	1.32	5.28	54.07
Some or completed primary school	4.71	2.42	6.98	49.70
Some or completed lower secondary school	4.33	4.03	8.40	45.75
Some or completed upper secondary school	3.12	4.65	10.20	39.64
Expenditure quintiles				
1st lowest	3.04	2.28	5.97	54.53
2 nd	4.18	2.90	7.10	49.83
3 rd	4.17	3.43	8.36	46.15
4 th	4.17	4.25	9.07	42.89
5th highest	4.85	4.70	10.38	37.44

Note: Percentages are weighted; sample size is 9399 households. Other categories not shown include housing and other non-food expenditures.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 2-4. Percentage of Households with Access to Basic Infrastructure, 2012.

	<i>Access to Improved Sanitation</i>	<i>Access to Improved Water</i>	<i>Has Tap Water in Home</i>	<i>Boils or Treats Water</i>	<i>Connected to Electrical Grid</i>	<i>Has Garbage Collection</i>
Total	73.5	81.6	29.5	91.5	97.6	41.5
Residence						
Rural	65.1	75.4	12.4	91.1	96.6	25.8
Urban	93.0	96.1	69.3	92.5	99.7	78.3
Ethnicity						
Kinh/Chinese	80.5	83.1	33.0	91.7	99.3	47.0
Ethnic Minorities	26.3	71.1	5.6	89.9	85.8	4.3
Education of HH Head						
Illiterate	40.7	74.5	17.5	79.0	89.3	15.7
Some or completed primary school	59.7	81.0	23.8	87.9	96.6	26.1
Some or completed lower secondary school	77.0	78.8	22.9	93.8	98.4	41.5
Some or completed upper secondary school	90.4	87.8	47.6	94.8	99.4	63.5
Expenditure quintiles						
1st lowest	36.6	72.5	9.5	88.4	91.8	14.2
2 nd	61.5	78.7	16.4	88.6	97.4	23.7
3 rd	78.5	79.6	25.1	91.1	98.5	38.5
4 th	88.3	83.7	35.7	93.5	99.5	53.0
5th highest	95.2	91.0	54.8	95.0	99.8	70.8
Region						
Red River Delta	92.1	64.9	32.2	98.7	100.0	74.4
Northern Midlands & Mountain Area	52.2	78.3	12.9	97.1	90.4	14.6
North Central & Central Coastal Area	75.9	86.1	23.4	92.9	97.7	32.5
Central Highlands	57.8	87.7	12.3	89.9	97.0	20.8
South East	91.8	98.2	48.3	88.9	99.6	63.2
Mekong River Delta	49.8	83.2	32.7	79.6	97.5	15.2

Note: Percentages are weighted; sample size is 9399 households. Access to improved sanitation includes flush toilets, suilabhs, and double septic tanks. Access to improved water includes tap water in home, public tap water, drilled wells, protected dug wells, protected stream water, purchased water, and other improved or protected sources.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 3-1. Worker Characteristics for Individuals of Working Age Earning Cash Wages and for All Individuals of Working Age, 2004-2012.
(in percent unless otherwise indicated)

	<i>Female</i>				<i>Male</i>			
	<i>2004</i>		<i>2012</i>		<i>2004</i>		<i>2012</i>	
	<i>Earns Cash Wages</i>	<i>All Working Age</i>	<i>Earns Cash Wages</i>	<i>All Working Age</i>	<i>Earns Cash Wages</i>	<i>All Working Age</i>	<i>Earns Cash Wages</i>	<i>All Working Age</i>
Real Annual Earnings (1000s of real VND)	8,103.1		13,651.1		9,129.1		16,657.3	
Time Inputs:								
Months Worked Per Year	10.1	9.9	10.4	10.6	10.0	9.7	10.6	10.6
Days Worked Per Month	23.3	22.4	23.0	21.6	23.1	22.0	22.6	21.5
Part Time Work	15.8	41.9	14.1	39.4	11.8	34.7	10.0	32.3
Education:								
Illiterate	4.5	6.0	3.1	5.5	3.1	3.3	2.7	3.5
Some or Completed Primary School	18.4	25.6	15.3	20.7	16.5	18.6	14.5	16.7
Some or Completed Lower Secondary School	31.6	40.0	31.0	37.6	40.6	42.6	36.2	38.6
Some or Completed Upper Secondary School	45.5	28.4	50.7	36.3	39.8	35.5	46.5	41.2
Years of Schooling	9.2	7.6	9.9	8.4	9.1	8.5	9.7	8.9
Has Technical Education	19.9	6.9	16.2	7.5	17.2	9.9	18.0	12.0
Potential Experience (years)								
Age	32.5	35.3	34.1	37.1	33.8	33.9	36.0	36.3
Potential Experience	16.7	20.7	17.7	22.0	18.2	18.8	19.8	20.9
Industry								
Agriculture, Forestry, and Fishing	16.4	56.4	11.2	46.8	15.9	51.0	13.5	42.2
Mining, Utilities, and Construction	5.2	1.5	6.4	2.4	27.5	11.5	27.6	13.7
Manufacturing	32.9	13.4	36.4	18.1	20.7	12.0	21.0	14.5
Wholesale and Retail Trade	10.2	18.6	12.0	19.3	6.6	9.7	10.5	12.2

Transport, Storage, and Communications	2.8	0.9	1.8	0.9	7.3	5.7	6.7	5.8
Business Services	2.5	0.9	3.6	1.5	2.6	1.3	3.6	2.1
Social Services	30.0	8.4	28.7	11.0	19.5	8.7	17.1	9.5
Occupation								
Executives and Managers	2.1	0.6	1.6	0.6	7.4	3.0	4.5	2.3
Science Professionals and Technicians	9.0	2.3	15.0	5.2	6.7	2.8	10.9	5.4
Other Professionals and Technicians	16.0	4.1	11.5	4.2	6.1	2.6	5.8	3.1
Clerical Workers	7.0	1.8	5.6	2.1	3.5	1.4	3.7	1.9
Service and Sales Workers	12.7	20.1	18.3	22.5	7.3	10.0	10.7	12.3
Agriculture, Forestry, and Fishing Workers	16.6	56.1	11.4	48.4	15.1	50.4	12.9	42.9
Skilled Production Workers	20.2	8.5	27.6	13.2	29.3	16.7	39.6	25.7
Unskilled Production Workers	16.3	6.4	8.9	3.8	24.6	13.1	12.0	6.5
Location								
Red River Delta	24.2	22.5	26.3	23.4	26.8	22.6	25.2	22.6
Northern Midlands and Mountain Area	8.7	14.5	7.5	13.3	9.5	14.5	8.1	13.6
North Central Area and Central Coastal Area	14.7	20.6	17.3	21.4	18.3	20.8	21.2	22.4
Central Highlands	3.8	5.2	3.4	5.4	3.5	4.9	3.5	5.7
South East	26.6	16.6	26.8	16.9	20.3	15.7	22.6	16.2
Mekong River Delta	22.1	20.7	18.6	19.6	21.6	21.5	19.4	19.4
Other Characteristics								
Urban Area	43.0	26.9	43.6	30.9	35.3	25.5	38.1	29.6
Married	57.8	62.2	69.0	68.1	63.5	60.6	70.8	67.2
Member of Ethnic Minority	5.5	11.8	6.2	13.8	5.9	12.2	7.4	14.5
No. of Preschool Age Children in HH	0.4	0.3	0.4	0.4	0.3	0.3	0.4	0.4
Number of Observations	2,541	13,513	3,189	12,761	4,145	13,164	4,687	12,516

Note: Weighted averages. Consumer price index (2000 = 100) used to deflate annual earnings. The full sample includes unpaid workers who report time inputs, occupations, and industries. Working age is 15-65.

Source: GSO (2004, 2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 3-2. Structure of Employed Population by Industrial Sector, 2004-2012 (in percent).

Panel A. Employment Shares for All Individuals of Working Age by Gender

	<i>Female Distribution</i>					<i>Male Distribution</i>			
	<i>Agriculture</i>	<i>Mining/Constr/ Utilities</i>	<i>Manufac- turing</i>	<i>Services</i>		<i>Agriculture</i>	<i>Mining/Constr/ Utilities</i>	<i>Manufac- turing</i>	<i>Services</i>
2004	56.4	1.5	13.4	28.8	51.0	11.5	12.0	25.5	
2006	53.0	1.4	14.8	30.8	48.4	12.1	13.0	26.5	
2008	52.1	1.7	14.9	31.3	47.5	12.7	12.7	27.1	
2010	46.6	2.1	18.4	32.8	40.4	13.8	16.0	29.8	
2012	46.8	2.4	18.1	32.7	42.2	13.7	14.5	29.6	

Panel B. Employment Shares for All Individuals of Working Age: Total Workforce and Percent Female

	<i>Total Distribution</i>					<i>Percent Female</i>			
	<i>Agriculture</i>	<i>Mining/Constr/ Utilities</i>	<i>Manufac- turing</i>	<i>Services</i>		<i>Agriculture</i>	<i>Mining/Constr/ Utilities</i>	<i>Manufac- turing</i>	<i>Services</i>
2004	53.7	6.5	12.7	27.1	52.3	11.2	52.4	52.8	
2006	50.7	6.8	13.9	28.7	52.0	10.4	52.9	53.6	
2008	49.8	7.3	13.8	29.2	51.6	11.7	53.3	52.9	
2010	43.5	8.0	17.2	31.3	53.1	13.0	53.0	51.9	
2012	44.4	8.1	16.3	31.1	51.7	14.2	54.7	51.7	

Note: Weighted averages. The full sample includes unpaid workers who report industries of employment. Working age is 15-65. Agriculture includes forestry and fishery; industry includes mining, construction, and utilities; and services include all remaining categories.

Source: GSO (2004, 2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 3-3. Workforce Development: Major Fields of Study in Tertiary Education, 2008-2013.

<i>2013</i>	<i>Female Distribution</i>	<i>Male Distribution</i>	<i>Total No. of Students</i>	<i>Percent Female</i>
General programs	2.9	2.3	67,501	51.0
Education	28.0	20.0	540,007	55.0
Humanities and arts	4.2	3.6	90,001	50.0
Social sciences, business, and law	35.0	27.5	697,509	52.0
Engineering, manufacturing, construction	17.7	29.7	540,007	34.0
Agriculture	5.7	5.8	135,002	46.0
Health and welfare	5.2	4.9	112,502	48.0
Services	1.4	6.1	90,001	17.0
Total	100.0	100.0	2,250,030	44.1

<i>2008</i>	<i>Female Distribution</i>	<i>Male Distribution</i>	<i>Total No. of Students</i>	<i>Percent Female</i>
General programs	3.5	3.7	58,946	50.2
Education	20.4	28.5	402,653	57.2
Humanities and arts	2.6	5.6	67,314	67.6
Social sciences, business, and law	26.1	40.8	550,714	59.8
Engineering, manufacturing, construction	29.2	10.6	332,884	25.6
Agriculture	7.2	5.7	107,712	43.1
Health and welfare	3.4	3.7	58,967	50.8
Services	7.6	1.4	75,656	15.1
Total	100.0	100.0	1,654,846	48.8

Note: Distributions are in percent.

Source: UNESCO (2015).

Table 3-4. Industry and Occupation Compensation and Gender Employment Shares, 2004-2012.

<i>Industry/Occupation</i>	<i>2004</i>			<i>Industry/Occupation</i>	<i>2012</i>		
	<i>Mean Basic Pay</i>	<i>Employment Shares (%)</i>			<i>Mean Basic Pay</i>	<i>Employment Shares (%)</i>	
	<i>VND/year</i>	<i>Female</i>	<i>Male</i>		<i>VND/year</i>	<i>Female</i>	<i>Male</i>
<i>Industries:</i>				<i>Industries:</i>			
Business Services	15,824	2.5	2.6	Business Services	29,148	3.6	3.6
Transport, Storage, & Communications	13,371	2.8	7.3	Transport, Storage, & Communications	23,588	1.8	6.7
Wholesale & Retail Trade	10,084	10.2	6.6	Social Services	16,791	28.7	17.1
Social Services	9,843	30.0	19.5	Wholesale & Retail Trade	15,911	12.0	10.5
Manufacturing	8,653	32.9	20.7	Manufacturing	14,862	36.4	21.0
Mining, Utilities, & Construction	8,265	5.2	27.5	Mining, Utilities, & Construction	14,424	6.4	27.6
Agriculture, Forestry, & Fishing	4,381	16.4	15.9	Agriculture, Forestry, & Fishing	8,366	11.2	13.5
<i>Occupations</i>				<i>Occupations</i>			
Science Professionals & Technicians	17,181	9.0	6.7	Executives & Managers	30,491	1.6	4.5
Clerical Workers	13,450	7.1	3.5	Science Professionals & Technicians	27,742	15.0	10.9
Other Professionals & Technicians	11,267	16.1	6.1	Other Professionals & Technicians	18,856	11.5	5.8
Executives & Managers	10,479	2.1	7.4	Clerical Workers	16,076	5.6	3.7
Skilled Production Workers	9,198	20.2	29.3	Skilled Production Workers	14,413	27.6	39.6
Service & Sales Workers	8,043	12.7	7.3	Service & Sales Workers	11,650	18.3	10.7
Unskilled Production Workers	6,158	16.3	24.6	Unskilled Production Workers	10,200	8.9	12.0
Agriculture, Forestry, & Fishing Workers	4,161	16.6	15.1	Agriculture, Forestry, & Fishing Workers	7,896	11.4	12.9

Note: Industry and occupation groups listed in descending order of mean basic pay in each year. Sample includes all individuals of working age (15-65) with positive cash earnings. Earnings are in 1000s of real VND.

Source: General Statistics Office (2004, 2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 3-5. Average Number of Hours Per Day Spent on Housework, 2008.

ALL AREAS		Male		Female	
<i>Ages</i>	<i>% Did no housework</i>	<i>Mean hrs worked</i>	<i>% Did no housework</i>	<i>Mean hrs worked</i>	
6-10	84.5	1.3	80.3	1.4	
11-14	58.0	1.3	40.9	1.5	
15-17	45.7	1.3	25.9	1.6	
18-24	51.8	1.4	27.2	2.0	
25-34	40.1	1.5	9.3	2.4	
35-44	30.7	1.6	4.3	2.4	
45-54	28.1	1.6	4.5	2.5	
55-64	26.4	1.7	5.6	2.5	
65+	42.8	1.7	32.9	2.3	
Total	43.6	1.5	21.3	2.2	
No. observations	17,202	9,781	17,952	14,134	
URBAN AREAS		Male		Female	
<i>Ages</i>	<i>% Did no housework</i>	<i>Mean hrs worked</i>	<i>% Did no housework</i>	<i>Mean hrs worked</i>	
6-10	91.7	1.0	82.6	1.3	
11-14	67.1	1.3	48.2	1.5	
15-17	57.6	1.3	24.2	1.7	
18-24	55.5	1.3	25.8	2.1	
25-34	46.1	1.4	8.8	2.6	
35-44	40.0	1.6	6.4	2.7	
45-54	33.7	1.6	6.1	2.9	
55-64	31.0	1.9	7.6	3.0	
65+	45.8	1.9	31.8	2.5	
Total	49.2	1.6	20.2	2.5	
No. observations	4,291	2,162	4,562	3,617	
RURAL AREAS		Male		Female	
<i>Ages</i>	<i>% Did no housework</i>	<i>Mean hrs worked</i>	<i>% Did no housework</i>	<i>Mean hrs worked</i>	
6-10	81.9	1.3	79.7	1.4	
11-14	55.1	1.3	38.6	1.5	
15-17	42.0	1.4	26.4	1.6	
18-24	50.5	1.4	27.8	1.9	
25-34	37.7	1.5	9.5	2.4	
35-44	27.1	1.5	3.5	2.3	
45-54	25.6	1.6	3.7	2.3	
55-64	24.4	1.7	4.6	2.3	
65+	41.6	1.7	33.2	2.2	
Total	41.5	1.5	21.7	2.1	
No. observations	12,911	7,619	13,390	10,517	

Note: Weighted averages, sample sizes unweighted. Mean hours excludes those who did zero housework.

Source: GSO (2008) Viet Nam Household Living Standards Survey; author's calculations.

Table 3-6. Types of Employment for Main Job Held in Past 12 Months (Ages 15-65; in percent)

	<i>Wage Worker</i>	<i>Female Ag Self- Emp</i>	<i>Non-ag Self-emp</i>	<i>Wage Worker</i>	<i>Male Ag Self- Emp</i>	<i>Non-ag Self-emp</i>
TOTAL	26.2	44.5	29.3	33.0	38.6	28.4
Area						
Rural	17.4	56.8	25.8	22.9	48.9	28.2
Urban	49.2	12.5	38.3	59.3	11.8	28.9
Ethnicity						
Kinh/Chinese	29.8	37.9	32.3	37.5	31.5	31.0
Ethnic minorities	7.3	79.5	13.2	9.5	75.8	14.8
Marital Status						
Single	39.1	36.7	24.3	47.5	34.7	17.7
Married	22.4	46.9	30.7	28.5	39.8	31.7
Education						
Illiterate	12.8	75.5	11.7	21.9	68.0	10.2
Some or completed primary school	16.8	57.0	26.2	23.6	55.1	21.3
Some or completed lower secondary school	17.0	49.6	33.4	24.3	42.5	33.2
Some or completed upper secondary school	48.4	22.4	29.2	49.1	22.7	28.3
Expenditure Quintile						
1st lowest	13.9	71.4	14.8	17.0	66.1	17.0
2 nd	20.5	53.1	26.4	25.6	46.4	28.1
3 rd	22.7	46.2	31.1	32.0	37.6	30.5
4 th	29.5	32.9	37.7	36.8	29.3	33.9
5th highest	44.5	19.5	36.0	51.7	17.1	31.2
Dependents in HH						
Preschool child present	28.9	44.2	26.9	34.2	38.6	27.3
No preschool child	24.9	44.7	30.5	32.5	38.6	28.9
Elder present	26.7	46.6	26.7	34.2	39.1	26.7
No elder	26.1	43.7	30.2	32.7	38.4	28.9

Note: Weighted averages. Education refers to some years or completion of each level indicated. Wage workers work for others and earn a wage or salary. Self-employed individuals are involved in production from the household and may have cash earnings, and self-employed agricultural workers are those who report that they are self-employed and the industry of their primary job is agriculture. Sample includes all individual of working age who report that they are working, including those with zero cash earnings.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 3-7. Average Cash Earnings by Types of Employment for Main Job Held in Past 12 Months for All Workers, Including Those with Zero Cash Earnings (Ages 15-65; in 1000s of real VND)

	<i>Female</i>			<i>Male</i>		
	<i>Wage Worker</i>	<i>Ag Self-Emp</i>	<i>Non-ag Self-emp</i>	<i>Wage Worker</i>	<i>Ag Self-Emp</i>	<i>Non-ag Self-emp</i>
TOTAL	14,795	180	2,357	19,208	549	4,714
Area						
Rural	12,079	180	2,909	15,520	576	5,649
Urban	17,294	184	1,392	22,923	263	2,344
Ethnicity						
Kinh/Chinese	15,036	200	2,288	19,560	658	4,723
Ethnic minorities	9,592	129	3,253	11,881	310	4,614
Marital Status						
Single	13,158	164	2,238	15,157	474	4,301
Married	15,647	184	2,385	21,314	570	4,786
Education						
Illiterate	5,704	229	623	8,868	823	2,804
Some or completed primary school	8,927	245	998	12,430	614	3,848
Some or completed lower secondary school	11,510	153	1,916	14,503	490	4,799
Some or completed upper secondary school	18,334	108	4,077	24,041	512	5,005
Expenditure Quintile						
1st lowest	7,403	199	2,033	9,663	502	4,822
2 nd	9,209	187	2,384	12,215	700	5,771
3 rd	12,306	157	2,383	14,512	576	5,535
4 th	14,097	210	2,685	18,311	573	4,441
5th highest	21,429	96	2,094	28,734	222	3,268
Dependents in HH						
Preschool child present	14,760	205	2,575	20,491	664	4,983
No preschool child	14,816	167	2,259	18,559	494	4,592
Elder present	13,745	103	2,321	17,888	336	4,463
No elder	15,191	210	2,369	19,675	622	4,792

Note: Weighted averages. Education refers to some years or completion of each level indicated. Wage workers work for others and earn a wage or salary. Self-employed individuals are involved in production from the household and may have cash earnings, and self-employed agricultural workers are those who report that they are self-employed and the industry of their primary job is agriculture. Sample includes all individual of working age who report that they are working, including those with zero cash earnings.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 3-8. Percent of Workers Earning Positive Cash Earnings in Past 12 Months (Ages 15-65; in percent)

	<i>Wage Worker</i>	<i>Female Ag Self- Emp</i>	<i>Non-ag Self-emp</i>	<i>Wage Worker</i>	<i>Male Ag Self- Emp</i>	<i>Non-ag Self-emp</i>
TOTAL	99.8	3.6	21.6	99.8	7.4	40.8
Area						
Rural	99.5	3.6	28.1	99.8	7.7	49.5
Urban	100.0	3.6	10.2	99.8	4.6	18.6
Ethnicity						
Kinh/Chinese	99.9	3.5	21.3	99.8	8.0	39.6
Ethnic minorities	97.5	3.7	25.0	100.0	6.1	53.9
Marital Status						
Single	99.5	3.4	24.4	99.9	8.1	44.7
Married	99.9	3.6	20.9	99.7	7.2	40.1
Education						
Illiterate	100.0	5.2	11.1	100.0	13.0	45.3
Some or completed primary school	99.5	4.9	13.9	99.6	9.3	38.7
Some or completed lower secondary school	99.5	3.0	21.6	99.9	6.6	42.9
Some or completed upper secondary school	99.9	1.8	27.6	99.8	5.2	38.5
Expenditure Quintile						
1st lowest	99.3	4.9	28.3	100.0	9.0	60.4
2 nd	99.6	3.4	30.9	99.5	9.9	54.4
3 rd	99.5	2.7	22.7	99.8	6.3	45.8
4 th	100.0	3.3	20.1	99.8	4.9	34.4
5th highest	99.9	1.7	12.7	99.9	2.5	21.7
Dependents in HH						
Preschool child present	100.0	4.3	22.3	99.9	9.0	40.6
No preschool child	99.6	3.2	21.3	99.7	6.7	40.8
Elder present	99.8	2.1	21.2	99.8	4.7	39.8
No elder	99.7	4.2	21.7	99.8	8.4	41.1

Note: Weighted averages. Education refers to some years or completion of each level indicated. Wage workers work for others and earn a wage or salary. Self-employed individuals are involved in production from the household and may have cash earnings, and self-employed agricultural workers are those who report that they are self-employed and the industry of their primary job is agriculture. Sample includes all individual of working age who report that they are working, including those with zero cash earnings.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 3-9. Average Cash Earnings by Types of Employment for Main Job Held in Past 12 Months for Workers with Positive Cash Earnings (Ages 15-65; in 1000s of real VND)

	<i>Female</i>			<i>Male</i>		
	<i>Wage Worker</i>	<i>Ag Self-Emp</i>	<i>Non-ag Self-emp</i>	<i>Wage Worker</i>	<i>Ag Self-Emp</i>	<i>Non-ag Self-emp</i>
TOTAL	14,832	5,054	10,917	19,248	7,392	11,567
Area						
Rural	12,135	5,049	10,358	15,557	7,482	11,413
Urban	17,303	5,103	13,605	22,961	5,746	12,612
Ethnicity						
Kinh/Chinese	15,058	5,684	10,727	19,602	8,201	11,939
Ethnic minorities	9,834	3,531	13,012	11,881	5,074	8,564
Marital Status						
Single	13,227	4,867	9,172	15,170	5,844	9,615
Married	15,664	5,094	11,396	21,371	7,863	11,948
Education						
Illiterate	5,704	4,419	5,626	8,868	6,337	6,197
Some or completed primary school	8,969	5,051	7,195	12,476	6,625	9,949
Some or completed lower secondary school	11,566	5,125	8,883	14,523	7,434	11,195
Some or completed upper secondary school	18,351	5,867	14,795	24,091	9,771	12,986
Expenditure Quintile						
1st lowest	7,453	4,057	7,182	9,663	5,613	7,984
2 nd	9,246	5,504	7,725	12,274	7,045	10,616
3 rd	12,371	5,847	10,507	14,546	9,095	12,080
4 th	14,097	6,408	13,360	18,355	11,803	12,909
5th highest	21,445	5,509	16,552	28,759	9,038	15,097
Dependents in HH						
Preschool child present	14,760	4,750	11,574	20,508	7,391	12,281
No preschool child	14,875	5,263	10,606	18,608	7,392	11,245
Elder present	13,774	5,029	10,934	17,926	7,214	11,212
No elder	15,231	5,058	10,912	19,715	7,426	11,675

Note: Weighted averages. Education refers to some years or completion of each level indicated. Wage workers work for others and earn a wage or salary. Self-employed individuals are involved in production from the household and may have cash earnings, and self-employed agricultural workers are those who report that they are self-employed and the industry of their primary job is agriculture. Sample includes all individual of working age who report that they are working and have positive cash earnings.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 3-10. Oaxaca Decomposition of the Gender Earnings Gap, 2004-2012.

<i>Year</i>	<i>F/M Earnings Ratio (%)</i>	<i>Total Gap</i>	<i>Gap Explained by Differences in Observables</i>					<i>Total Explained</i>	<i>Residual Gap</i>	<i>% Explained</i>
			<i>Time</i>	<i>Education</i>	<i>Potential Experience</i>	<i>Industry & Occupation</i>	<i>Other</i>			
2004	86.9	14.1	0.3	-1.1	1.3	1.0	-3.0	-1.5	15.6	-10.8
2006	83.6	17.9	1.7	-1.0	1.8	1.0	-0.4	3.3	14.7	18.1
2008	81.9	20.0	2.0	-1.3	1.0	-0.5	-0.4	0.8	19.2	3.8
2010	80.3	21.9	2.4	-0.6	1.5	3.0	-1.3	5.1	16.8	23.2
2012	80.2	22.0	2.5	-0.5	1.1	3.4	-1.4	5.1	16.9	23.3

Note: Reported results are the male-female difference in log earnings times 100, unless otherwise indicated. Sample consists of all individuals of working age (15-65) with positive cash earnings, including both wage workers and the self-employed who have positive cash earnings.

Source: GSO (2004-2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 4-1. Percent of Individuals who Visited Health Care Providers in Past 12 Months, 2012.

	<i>Total</i>		<i>Rural</i>		<i>Urban</i>	
	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>
(No. of observations)	18,621	18,034	13,315	12,991	5,306	5,043
Total	43.6	34.6	43.1	34.2	44.6	35.4
Age						
0-4	57.2	62.3	54.6	58.4	63.6	72.4
5-9	38.6	41.0	37.9	39.2	40.1	45.3
10-14	25.9	29.2	25.0	29.6	28.4	28.2
15-19	23.5	19.3	22.7	18.9	25.8	20.4
20-29	35.3	16.7	35.8	16.5	34.1	17.1
30-39	40.3	27.1	40.8	27.0	39.1	27.2
40-49	45.4	33.4	44.9	34.1	46.3	31.7
50-59	52.3	42.4	52.8	43.6	51.5	39.8
60+	66.6	62.2	65.9	62.6	68.2	61.1
Ethnicity						
Kinh/Chinese	44.9	36.0	45.0	36.1	44.7	35.7
Ethnic Minorities	35.8	26.5	35.0	26.3	44.4	28.6
Expenditure quintiles						
1st lowest	38.3	29.3	38.3	28.9	38.3	32.8
2 nd	42.4	34.8	42.7	35.1	40.6	33.2
3 rd	44.9	34.2	44.1	33.7	46.8	35.6
4th	44.0	34.9	45.3	35.9	41.9	33.3
5th highest	48.5	39.4	49.8	41.7	47.7	37.7
Regions						
Red River Delta	38.7	29.9	38.4	29.6	39.3	30.7
Northern Midlands & Mountain Area	36.3	26.9	35.1	26.2	42.1	30.3
North Central & Central Coastal Area	40.5	31.9	39.3	30.7	44.3	35.6
Central Highlands	46.0	39.4	46.6	41.2	44.4	34.5
South East	45.9	37.3	48.0	38.1	44.2	36.6
Mekong River Delta	55.1	44.7	55.0	45.2	55.6	43.0

Note: Percentages are weighted and sample sizes are unweighted. Figures represent the proportion of all individuals in each category who visited any health care worker or center in the past year.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 4-2. Percent of Individuals Who Had Health Insurance in Past 12 Months, 2012.

	<i>Total</i>		<i>Rural</i>		<i>Urban</i>	
	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>
(No. of observations)	18,621	18,034	13,315	12,991	5,306	5,043
Total With Health Insurance	65.0	63.7	63.7	62.4	67.9	67.1
Age						
0-4	92.9	94.1	93.5	94.9	91.5	91.9
5-9	90.5	90.9	89.4	91.0	93.0	90.7
10-14	87.7	86.7	86.2	85.8	91.8	88.9
15-19	73.3	68.6	72.3	66.8	75.9	74.1
20-29	60.2	52.8	59.4	51.8	61.9	55.2
30-39	48.0	46.1	46.3	43.6	51.8	51.6
40-49	45.0	43.0	43.1	40.0	48.9	49.6
50-59	54.1	55.5	48.7	50.3	65.7	66.1
60+	72.0	78.1	70.7	77.6	75.2	79.2
Ethnicity						
Kinh/Chinese	61.4	59.7	58.1	56.1	67.8	67.1
Ethnic Minorities	85.9	86.5	87.3	88.2	69.6	67.3
Expenditure quintiles						
1st lowest	74.7	74.1	76.1	76.0	62.3	56.5
2 nd	60.6	58.4	60.9	58.8	58.9	56.4
3 rd	58.7	56.0	57.7	55.3	61.5	58.1
4 th	60.2	60.4	57.3	57.1	64.9	66.2
5th highest	70.5	70.0	62.1	61.6	75.9	76.3
Individuals with Health Insurance (HI):						
Type of Insurance						
HI for children under 6	11.7	12.9	11.9	13.4	11.3	11.8
HI for the poor & near-poor	17.2	16.5	22.3	21.3	6.1	5.5
Free healthcare booklet/card	7.6	7.6	9.7	9.8	2.8	2.7
HI for policy beneficiaries	9.3	10.1	11.0	12.5	5.6	4.8
Required state HI	11.0	12.5	6.2	7.5	21.6	24.0
Required non-state HI	5.6	5.3	4.2	3.5	8.6	9.5
Student HI	21.9	24.0	20.6	22.1	24.7	28.2
Other Voluntary HI	15.8	11.1	14.2	10.0	19.3	13.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: Percentages are weighted and sample sizes are unweighted. Figures represent the proportion of all individuals in each category who visited any health care worker or center in the past year.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 4-3. Types of Health Care Services Utilized Among Individuals Visiting Health Care Providers in Past 12 Months (2012, in %).

<i>Type of health service</i>	<i>Rural areas</i>		
	<i>Total</i>	<i>Female</i>	<i>Male</i>
Village health center	1.2	1.1	1.3
Commune health center	28.5	28.9	28.1
Regional health clinics	3.3	3.3	3.3
District hospital	23.3	24.1	22.2
Provincial hospital	11.5	10.6	12.7
Central hospital	3.7	3.7	3.7
Other state-owned hospital	0.9	0.8	0.9
Private hospital	2.6	2.7	2.5
Other hospital	0.1	0.1	0.1
Private clinic	14.7	14.8	14.7
Traditional practitioner	0.6	0.6	0.5
Private health services	9.0	8.6	9.5
Other facilities	0.7	0.7	0.6
Total	100.0	100.0	100.0
(No. of observations)	10,148	5,738	4,410

<i>Type of health service</i>	<i>Urban areas</i>		
	<i>Total</i>	<i>Female</i>	<i>Male</i>
Village health center	0.4	0.2	0.5
Commune health center	9.1	9.4	8.7
Regional health clinics	3.1	3.4	2.7
District hospital	23.9	24.0	23.7
Provincial hospital	22.1	21.8	22.5
Central hospital	7.5	7.7	7.2
Other state-owned hospital	2.6	2.2	3.1
Private hospital	4.4	4.7	3.9
Other hospital	0.1	0.1	0.1
Private clinic	20.2	20.4	19.9
Traditional practitioner	0.3	0.3	0.4
Private health services	4.8	4.4	5.4
Other facilities	1.6	1.3	2.0
Total	100.0	100.0	100.0
(No. of observations)	4,257	2,444	1,813

Note: Percentages are weighted and sample sizes are unweighted. About 20 percent of respondents listed more than one type of health care service used during the past 12 months. This table reports the distribution of only the first health care facility listed by respondents.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 4-4. Reasons for Visiting Health Care Facilities in Past 12 Months (2012, in %).

<i>Reasons for visit</i>	<i>Rural Areas</i>							
	<i>All Ages</i>		<i>Age 0-19</i>		<i>Age 20-49</i>		<i>Age 50+</i>	
	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>
Vaccination	5.9	6.4	16.8	17.0	3.6	0.5	0.4	0.3
Pregnancy & other GYN reason	6.4	0.0	1.8	0.0	14.7	0.0	0.0	0.0
Check-up and consulting	18.0	17.9	13.8	14.7	19.5	18.2	19.4	21.3
Treatment	69.7	75.7	67.6	68.3	62.2	81.3	80.3	78.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(No. of observations)	5,738	4,410	1,508	1,621	2,353	1,491	1,877	1,298

<i>Reasons for visit</i>	<i>Urban Areas</i>							
	<i>All Ages</i>		<i>Age 0-19</i>		<i>Age 20-49</i>		<i>Age 50+</i>	
	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>
Vaccination	5.7	6.7	18.2	18.3	2.7	0.1	0.1	0.0
Pregnancy & other GYN reason	6.4	0.0	1.0	0.0	14.9	0.0	0.1	0.0
Check-up and consulting	21.2	22.3	14.9	16.3	22.9	24.8	23.7	26.7
Treatment	66.7	71.0	66.0	65.4	59.6	75.2	76.1	73.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(No. of observations)	2,444	1,813	592	643	1,027	610	825	560

Note: Percentages are weighted; sample sizes are unweighted totals. About 20 percent of respondents listed more than one type of health care service used during the past 12 months. This table reports the distribution of only the reason for visiting the first health care facility listed by respondents.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Table 4-5. Total Health Expenses for Outpatient and Inpatient Treatments in Past 12 Months (2012, VND in thousands).

	<i>Rural</i>		<i>Urban</i>	
	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>
(No. of observations)	5,738	4,410	2,444	1,813
Total	1,495.6	1,728.3	2,182.5	2,244.6
Age				
0-4	518.4	512.2	829.1	641.6
5-9	410.4	746.0	594.5	888.2
10-14	251.5	808.7	591.7	569.9
15-19	1,723.2	2,274.7	1,428.3	1,164.7
20-29	1,531.0	1,970.8	1,815.1	1,850.6
30-39	1,458.6	2,343.7	2,045.6	2,936.7
40-49	1,742.0	2,124.7	2,315.3	2,441.5
50-59	1,970.6	2,455.4	3,746.8	4,036.5
60+	2,041.7	2,043.9	2,967.3	3,498.2
Ethnicity				
Kinh/Chinese	1,641.5	1,870.9	2,250.8	2,280.7
Ethnic Minorities	703.0	922.0	452.2	1,187.4
Expenditure quintiles				
1st lowest	511.1	445.2	505.9	363.9
2 nd	964.9	922.0	1,014.0	763.1
3 rd	1,254.5	1,504.2	1,216.9	1,170.7
4 th	1,928.6	2,176.5	1,830.5	1,348.7
5th highest	4,046.0	4,599.8	3,300.0	3,811.0
Type of Health Care Facility				
Centers	475.3	349.7	854.0	589.9
Clinics	1,046.8	873.2	1,196.3	889.9
Hospitals	2,661.1	3,374.6	2,939.2	3,115.2
Other	454.4	466.9	565.2	1,390.7
Public or Private				
Public	1,669.6	2,038.5	2,402.7	2,804.4
Private	1,037.1	924.4	1,695.4	1,033.5

Note: Outpatient care includes expenses for medical service, treatment, and other related costs such as bonuses for doctors, equipment and transportation. Inpatient care includes expenses for service charges for additional medical requirement, equipment, and transport.

Source: GSO (2012) Viet Nam Household Living Standards Survey; author's calculations.

Appendix Table: Variables used in the Estimation of the Wage Gap Decomposition

<i>Description</i>	<i>Explanation</i>
Data source	<p><i>Household Living Standards Surveys</i></p> <ul style="list-style-type: none"> • Source: General Statistics Office • Biannual surveys • Time span 2004–2012 • Full sample includes individuals age 15 to 65 with no missing information on observable characteristics • Wage function estimation subsample includes only workers receiving cash earnings
Dependent variable	<p>Log real annual earnings</p> <ul style="list-style-type: none"> • Logarithm of total reported annual earnings in the primary job deflated using the annual average consumer price index (base year = 2000)
Time variables	<p>Log monthly days worked</p> <ul style="list-style-type: none"> • Logarithm of reported monthly days worked <p>Log annual months worked</p> <ul style="list-style-type: none"> • Logarithm of reported annual months worked <p>Part time work dummy</p> <ul style="list-style-type: none"> • Equal to one if respondent worked less than 40 hours in an average week
Education variables	<p>Education dummies [general education categories]</p> <ul style="list-style-type: none"> • One if illiterate (omitted) [0] • One if some or completed primary [5] • One if some or completed lower secondary school [9] • One if some or completed lower secondary school [12] <p>Dummy for no technical education</p>
Experience variables	<p>Potential experience</p> <ul style="list-style-type: none"> • The lesser of age minus years of schooling minus 6 or age minus 12 (negative values set to zero) <p>Potential experience squared</p>

<i>Description</i>	<i>Explanation</i>
Industry variables	<p>Industry dummies</p> <ul style="list-style-type: none"> • One if agriculture, forestry, and fishing (omitted) • One if mining, utilities, and construction • One if manufacturing • One if wholesale & retail trade • One if transport, storage, and communications • One if business services • One if social services
Occupation variables	<p>Occupation dummies</p> <ul style="list-style-type: none"> • One if legislators, senior officials, and managers • One if science, engineering, and health professionals and associate professionals • One if other professionals and associate professionals • One if clerical workers • One if service and sales workers • One if agriculture, forestry, and fishing workers • One if skilled production workers • One if unskilled industry production workers (omitted)
Other variables	<p>Marital status dummy</p> <ul style="list-style-type: none"> • One if currently married <p>Ethnic minority dummy</p> <ul style="list-style-type: none"> • One if belongs to an ethnic minority that is not Kinh or Chinese <p>Number of pre-school age children</p> <ul style="list-style-type: none"> • The number of children age 0 to 5 years residing in the household <p>Location dummies</p> <ul style="list-style-type: none"> • One if Red River Delta • One if Northern midlands and mountain area • One if North central area and central coastal area • One if Central highlands • One if South east • One if Mekong River delta <p>Urban dummy</p> <ul style="list-style-type: none"> • One if in an urban area as defined by the statistical authority