CHAPTER 4

Youth Work and Employment in Vietnam

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Abstract

This paper utilizes the data from the Survey Assessment of Vietnamese Youth (SAVY) to outline the current situation of work and employment of Vietnamese youths, arguing that their school-to-work transition is quite limited. With a special focus on identifying risk and protective factors during the school-to-work transition of youth, the paper examines the health risk behaviors of youth groups with different work experience and the ability of young people to be employed given their demand for jobs, skills, training, and capability to work. The findings reveal that the family in which a young person lives serves as an important factor in determining the youth employment experience. The paper concludes with policy implications aimed at improving the current situation of youth work and employment in Vietnam as the country enters into a new phase of development.

1. Introduction

Although a considerable amount of information and data relating to youth and employment does exist in the form of various surveys as well as other scattered sources within Vietnam, there has been no comprehensive analysis of national-level data. Despite the seriousness of the youth unemployment and underemployment problem, there is limited information about work experience and health outcomes associated with it for young people in Vietnam. This paper is aimed at filling this gap. It is prepared with the belief that if we know what improves outcomes for our youth, we can then put into place policies, programs and services that take advantage of existing opportunities while avoiding some of the risks along the way. The following objectives are pursued in brief.

- Provide scientific evidence of policy discourse and issues regarding youth employment in Vietnam,
- Assess differentials in the level and patterns of youth work and employment,
- Identify risk and protective factors during the school-to-work transition of young people,
- Examine the health risk behaviors of youth groups with different work experience and employability, and
- Draw conclusions and policy implications of the research findings for the formulation of the National Comprehensive Strategy on Youth and Adolescent Health in Vietnam.

2. Overview of Youth Work and Employment in Vietnam

In Vietnam, youth—persons aged 15–24—account for one-fourth of the total population. This social demographic group made up 22 percent of the labor force in 2003, with relatively equal proportions of women and men (Ministry of Labor, War Invalids and Social Affairs [MOLISA], 2004). They have great potential to build on the socio-economic successes of the past 20 years of reforms. Youth have formed the backbone of Vietnam's economic success throughout the decade. About two-thirds (67 percent) of youth aged 15–24 work on small family farms and in the informal sector—work characterized by low quality, underemployment, insecurity and safety hazards (General Statistics Office of Vietnam [GSO], 2002).

Since the *Doi moi* (renovation), which was officially introduced in 1986, Vietnam has shifted from a centrally–planned system to a socialist-oriented market economy. Measures were introduced to open up the economy to international markets. The policies called for a multi-sector economy, trade liberalization, foreign direct investment and other reforms. The rapid diversification of economic activities has led to increased incomes and improved living conditions. Real GDP growth has been achieved at 7–8 percent per annum since the 1990s. The proportion of people with per capita expenditure under the poverty line dropped dramatically by 30 percentage points in just over a decade (World Bank, 2004). The market transition in Vietnam has brought increased job opportunities for the working population, of which young people form the majority.

The transition to a market economy in Vietnam involved a drastic turn in the labor and job markets. It is important to note that these positive results achieved from *Doi moi* would have had both direct and indirect effects on employment, equity and social welfare. In spite of the new opportunities and diversification that open up economic opportunities, a shift toward a market economy also involves changes resulting in job losses and layoffs for many workers. The transition places new constraints on young people who find themselves caught between old and new social norms and values. As a result, their expectations and perceptions of work diverge. A good job is not just a source of income; it also provides economic standing, self-esteem, status and social capital. Unless girls find good jobs, their bargaining power in marriage and control over their fertility will remain limited. In addition to skills and educational achievement, the work participation of youth has significant implications for their development.

Employment has become a major concern for young people. Youth unemployment and underemployment have increased rather than decreased in Vietnam (United Nations [UN], 2003). According to official data (MOLISA, 2004), the country's youth unemployment rate was over 14 percent in 2003 with sharp gender and regional differentials. The age group 15–24 years old forms the bulk of the unemployed young people (26 percent). Young people aged 15–24 find it more difficult to get jobs than do adults (25 years of age and above). For the country as a whole, youth in the labor force are twice as likely to be unemployed than the adult population. Youth unemployment accounts for 45 percent of all unemployment in Vietnam. The high levels of unemployment and underemployment in rural areas have resulted in out-migration from agricultural sectors to urban centers. Migrant youth may have special problems in obtaining employment as they are more likely to leave school at early ages and enter low-paid and unskilled jobs.

However, the unemployment statistics do not reveal the severity of the situation. The large size of the youth labor force and the increase in the labor age population continue to bring heavy employment pressures. The rate of growth of employment is 2.5 percent per annum while the rate of growth of the labor force is 3.3 percent per annum. The difference can be defined as new additions to the unemployed population. The number of youth entering the labor market is still estimated at 1.4 million each year. This does not include those still unemployed from the preceding year (International Labour Office [ILO], 2002). Young entrants into the labor market

face severe competition in finding suitable job opportunities. At the heart of the problem is the quantity and quality of work available to young people in Vietnam today.

Many out-of-school youth are working to earn a living for their families in low paid work and petty trade. Apart from low productivity, a lack of job opportunities can have significant social consequences. Experience from other countries shows that unemployment can lead to a life of violence, drug abuse, vandalism, crime and other social problems. Early school leavers without regular employment may turn to risky avenues for income and livelihoods such as prostitution and crime. Some become victims of HIV/AIDS and human trafficking.

Table 1: Unemployment rate by sex and age group in Vietnam, 1999

Age group	*Total*	*Male*	*Female*
15–19	10.9	11.9	10.1
20–24	6.6	7.2	5.9
25–29	3.5	3.7	3.2
30–34	2.3	2.6	2.0
35–39	1.9	2.4	1.3
40–44	1.8	2.4	1.1
45–49	1.7	2.4	1.0
50–54	2.0	2.8	1.1
55–59	1.8	2.4	1.2
60+	2.3	2.4	2.1
ALL	4.0	4.4	3.5

Source: GSO (2002)

It is important to look at unemployment rates for individuals at all ages in addressing the labor force participation of youth. Using the most recent population census data in Vietnam, Table 1 gives unemployment rates by sex and age in 1999. The highest rates of unemployment are found among males and females 15–19 years of age, followed by the age group of 20–24. Males are relatively more likely to be unemployed than females in all age groups. Unemployment rates for people aged 15–19 are somewhat difficult to interpret because lower unemployment rates are associated with higher school attendance. However, the high rates shown in the table clearly indicate that young people are seeking work opportunities and are often failing to find them.

Table 2: Underemployment rate by rural/urban: Vietnam, 2003

Age group	*Total*	*Rural*	*Urban*
15–19	9.9	10.2	7.5
20–24	8.6	9.5	5.2
25–29	6.9	7.9	4.0
30–34	6.8	7.6	4.4
35–39	6.5	7.3	4.1
40–44	6.0	6.8	3.9
45–49	5.5	6.3	3.7
50–54	5.4	6.2	3.3
55–59	4.4	4.7	3.6
60+	2.3	2.2	2.8
ALL	7.0	7.5	4.4

Source: MOLISA (2004)

The situation of underemployment is not encouraging. Underemployed workers are those who are employed but are willing and able to work more. As shown in Table 2, the total number

of underemployed workers accounted for about 7 percent of the labor force nationwide. Rural workers are more likely to be underemployed than urban workers (7.4 percent and 4.4 percent, respectively). Notably, the underemployment rates are highest for the 15–19 and 20–24 age groups, regardless of rural-urban differenrials. As younger workers are more likely to be underemployed than older workers, the policy challenge for youth employment is to provide more job opportunities for underemployed youth so as to help them work full time.

Throughout the process of *Doi moi*, significant policy efforts have been made by the Communist Party and the Government of Vietnam to address problems related to employment in general, and youth employment in particular. Issues of youth work and employment are addressed within general labor and employment policies which aim to reduce the proportion of the unemployed in the economy. To this end, initiatives currently taken by the government to create employment for youth include direct investment to generate new jobs through various national socio-economic development programs, provision of assitance in the form of loan credit, promotion of the human resources for young people, provision of boarding schools for ethnic minority youth, enhanced universal education, and vocational training programs.

The government of Vietnam understands that investing in young people is investing in the future. As a part of the Socio-economic Development Strategy for Vietnam (2001–2010), the *Vietnam Youth Development Strategy by 2010* has outlined the government's approach to tackling youth issues (Vietnam Youth's Union, 2003). The main objective of the strategy is to strengthen education and support for young people in Vietnam. The first phase identifies five key programs: (i) employment for youth; (ii) enhancing the education level and professional skills for youth; (iii) developing young scientific capability in order to upgrade the science and technology qualifications of youth; (iv) fighting crime and social evils among young people; and (v) building up the political stance, revolutionary ethics, and socialist patriotism for young people. In addition to the Vietnam Youth Development Strategy, a number of other laws and policies are in place, focusing on youth development, employability and encouragement of support for young talents. They can be identified as the Comprehensive Poverty Reduction and Growth Strategy (CPRGS), the implementation of the New Enterprise Law, vocational training programs, and others which aim directly or indirectly at entrepreneurship, vocational training, job and income generation, and poverty reduction for young people.

Despite these sound policies and programs, Vietnam has been characterized by a high unemployment rate in urban areas, serious underemployment in the countryside, a very high proportion of agricultural labor, a remarkably low ratio of skilled labor, and a large amount of manual labor (ILO, 2002). Too frequently, a lack of skills and opportunities force Vietnamese youth to accept inadequate jobs. About 94 percent of the total youth population had no vocational and technical skills in 1999. Initial results from the Survey Assessment of Vietnamese Youth (SAVY) undertaken in late 2003 show that only 5 percent of young people from ethnic minorities have ever had any vocational training, compared to 21 percent of their Kinh majority counterparts (MOH *et al*., 2005). Because of their geographical isolation, lower levels of education and training, and limited off-farm opportunities, rural and ethnic minority youth have little exposure to vocational training, employment opportunities, and job generation initiatives.

Vietnam's growth rates of the past twenty years of *Doi moi* have not yielded the expected quantity and quality of new jobs and stable employment. There are many more new job seekers than the number of jobs created each year. To a certain extent, youth unemployment is a reflection of the overall unemployment situation, which in turn is a reflection of the weakness of the economy wherein the private sector is slowly developed. Although privatization invites investment and growth, increased competition continues to force both the state-owned and private enterprises to streamline their staff. The non-state sector still plays an insignificant role in the rural economy, which is largely dominated by agricultural production.

While competition among young people for decent jobs has been increasing, there is a significant mismatch between the skills and knowledge of young people and the demands of employers. Employers are usually hesitant to hire youth with no or little work experience. It is easier and cheaper to hire skilled adults than to provide inexperienced and untested young people with new training. Where the work is skilled, recruitment is even more competitive. Although academic degree holders are often not in great demand, appropriate skills training is highly regarded by employers. The problem is exacerbated by several flaws of the current education and training system as well as the lack of coordination between the educational and vocational training sector and employment sector (MOLISA, 2004). Moreover, inadequate services on job counseling further limit the ability of young people to make informed and appropriate career choices.

3. Descriptions of the Data Source

The present in-depth analysis examines relevant factors associated with employment of the Vietnamese youth. The importance of employment for young people for subsequent development as well as the central role of the family in raising children through the years of life has provided the rationale for undertaking such an analysis. We frame the analysis in terms of identifying and assessing factors associated with work status and employment experience of young people. It is vital to differentiate the experience of young people, their work, and their relative positions in the labor market.

Much of the analysis below draws heavily from SAVY, which is one of the first nationally representative surveys on a wide range of issues for Vietnamese youth (MOH *et al.*, 2005). While it is impossible to establish time-order causality between outcome and independent variables due to the cross-sectional nature of the SAVY data, results from bivariate analysis are a starting point for shedding light on how youth employment experience differs depending on individual characteristics and familial conditions. Then, statistically associated factors are assessed using multivariate analysis techniques. The analysis will allow us to control the confounding effects and identify factors that may prevent young people from being employed, getting jobs, or receiving vocational training.

Despite its national coverage and representation, SAVY provides no information about working conditions, unpaid work, and time-use data, which would allow us to explore youth employment in a more comprehensive fashion. Data on communities were not collected by SAVY, except for the information on type of current residence. It is important, therefore, that youth employment patterns from SAVY be linked or compared with those obtained from earlier surveys as well as from future surveys in order to assess changes in youth employment in relation to the intensive market transitions

Using the risk and protection model for Vietnamese adolescents (Blum, 2004), two different sets of underlying factors can be defined as pertaining to youth work and employment. The first set is various individual characteristics including gender, age, ethnicity, marital status, education, health status, and indicators of their transition to adulthood, such as experience of child labor and economic migration. In addition, the initiation of risk-taking behavior, such as substance use, may lead youth to drop out of school and as a result may force youth into the labor market. The second set of factors of concern is the parental status and familial conditions that can influence youth employment and work-related outcomes. At the family level, we are particularly interested in examining factors related to parents and households that affect the school-work transition and employability of youth. For example, many in Vietnam would argue that high status of parents and family can lead to a better position for children in the labor market. The research findings reported below will therefore provide important background and

identify factors for considering the basic policy directions with regard to the linkages among youth employment, schooling, health, and well-being.

4. Analysis Results and Discussion

4.1. Characteristics of youth work and employment

4.1.1. Paid work experience

The paid work participation rate of Vietnamese youth is presented in Table 3.

Table 3: Youth's paid work by individual and familial characteristics, Vietnam, 2003

Characteristics	*Sub-group*	*Experience of paid work*		
		Mean age at time of first job (years)	*Percentage ever having worked (%)*	*Currently working (%)*
Gender	Female	18	52.1	32.6
	Male	17	57.7	37.7
Age group	14–17	14	32.3	15.2
	18–21	18	64.6	41.6
	22–25	19	85.7	65.7
Marital status	Married	18	80.9	56.8
	Single	17	50.0	31.1
Educational attainment	Primary	16	75.4	54.8
	Lower Sec.	17	50.0	30.5
	Higher Sec.	19	44.0	24.0
	College/Univ	21	71.5	51.5
Ever worked as a child laborer	Yes	13	100.0	55.4
	No	18	0.0	66.5
Ever migrated to earn a living	Yes	17	98.2	69.3
	No	18	47.9	29.7
Substance use*	Yes	17	68.8	46.7
	No	17	45.1	27.0
Premarital sex	Yes	18	83.9	62.0
	No	17	52.5	32.9
Poor physical or mental health	Yes	17	58.9	38.1
	No	17	48.2	30.3
Ethnicity	Kinh	18	55.0	35.8
	Other	16	54.3	31.9
Family economic status	Low	17	61.8	39.1
	Middle	17	55.0	34.8
	High	19	44.1	29.9
Living parents	One dead	17	66.6	47.0
	Both alive	17	53.6	33.9
Number of siblings	1	18	69.1	45.7
	2–3	17	49.4	31.9
	4+	17	54.3	33.3
Paternal occupation	Professional	20	49.2	31.6
	Unskilled	17	55.2	37.9
	Agricuture	17	55.7	34.4
	Unemployed	18	68.4	50.0
Type of place of current residence	City	19	53.8	39.2
	Town	18	49.5	32.2
	Rural	17	55.8	34.9

ALL	17.4	54.9	35.2
N [number of cases]	4,161	7,584	4,087

Note: * Includes use of heroin, illicit drugs, alcohol, and tobacco
Source: SAVY 2003

The figures provide information on the mean age of respondents when they entered their first job, in addition to showing the rates of labor force participation across subgroups at the time of the survey and over the lives of respondents. From the table, we can see that the age at which young people in Vietnam start working for pay varies with individual characteristics. Overall, entry into the labor market comes at a relatively young age (17.4 years). Males and those currently married begin paid employment at an earlier age than their female and never-married counterparts. The results suggest that single youth stay at school for a longer duration of time before leaving for work.

The mean age of beginning paid work increases significantly with the levels of education, suggesting that the lower the education, the earlier young people start to work. It is likely that school dropouts have to support themselves and their families in a paid job. Children who worked when they were young had to leave school and thus have a lower level of educational attainment. The demand to work for family survival and the cost of education are key reasons for dropping out of school and entering the labor market.

The prevalence of substance use is measured by the proportion of youth who have ever used the substances. Additional information collected by SAVY revealed that 41 percent of the survey respondents reported trying alcohol or smoking, although only 0.5 percent reported use of heroin and illicit drugs. There is, however, no correlation between the age at which young people began working and their substance use and health condition. Young people with poor health, physically or mentally, tended to join the labor market at the same age as others. Compared to their peers, young people having premarital sex started working relatively late.

As the results show, youth who are members of ethnic minorities tend to start working earlier than *Kinh* people (16 and 18 years, respectively). As expected, young people from families with low economic status began working at a much earlier age. However, the mean ages for beginning work are not significantly different between those living in families with or without both parents. Young people who are only children tend to enter the labor market at a later age (18 years).

Reflecting social status, the occupations of the parents can influence the age at which their children begin to work. Children of a professional start working much later compared with children of unskilled or agricultural workers (20 and 17 years, respectively). Children of unemployed fathers also started to work later, possibly because of fewer job opportunities. The age that young people begin to work increases from rural areas to towns and to cities. Young people living in rural areas started working at younger ages than urban youth. The results suggest that in the countryside young people are more likely to face economic hardships and drop out of school. These results also reflect the movement of young educated people from the countryside to towns and cities for their higher education.

Turning to the youth experience of paid work, the results show that 35 percent of the respondents worked at the time SAVY was taken in 2003. Also, more than half (55 percent) of the total respondents had worked for pay at some time during their lives. The patterns of respondents who had ever worked and were currently working are fairly similar across individual and familial characteristics. Generally, the proportion of youth who had worked before was about 20 percentage points higher than the the proportion who were working at the time of the survey. This suggests that some young people had started working for pay at early ages but left the labor market for a number of reasons. The lower level of currently working youth may also

indicate the low capacity of job creation and poor absorption of young workers in the formal labor market. If seasonal or informal work had been asked and included in the data, the level of working youth might have been higher. In fact, some young people hold part-time work for pay while they are still in school, but they may not report this as work. To some extent, the measurement of work may also be influenced by what youth consider to be work. Many young people who work casually in the informal economy do not actually think of themselves as "working."

Youth work differs significantly by gender, age and marital status. The level of labor force participation is higher for the married group, and increases dramatically with age. Conversely, the labor force participation of youth declines with increases in general education. In other words, leaving school at an early age pushes young people into the labor market. Although the level of youth employment is high for the most educated group (college/university level), it is notable that only half of this group was working at the time of SAVY. The rest of them might still have been searching for suitable jobs. The results indicate some difficulties in skill mismatching for university graduates in the present job market.

Not surprisingly, a very high proportion of young people reporting economic migration or child labor experience have ever worked for pay (Table 3). Moreover, two notable findings emerge with some particular subgroups. First, youth's experiences with risk-taking behaviors, such as substance use or premarital sex, are associated with higher rates of work. One reason might be that young people who leave school and begin to work may be more independent from their families. This could allow them more freedom to experiment with substances and sex. Second, a relatively higher proportion of young people with poor health work for pay. Why these associations exist is not clear; however, it is evident that education is protective against a range of health risk behaviors. Conversely, those who are at risk for early school leaving and early work may also be at risk for a range of other health compromising experiences. Poor health, substance use, and initiation of premarital sex can operate as harmful factors for youth's exposure to risk at work and during their transition to adulthood. More research needs to be directed at untangling the complex relationship between these factors and job outcomes.

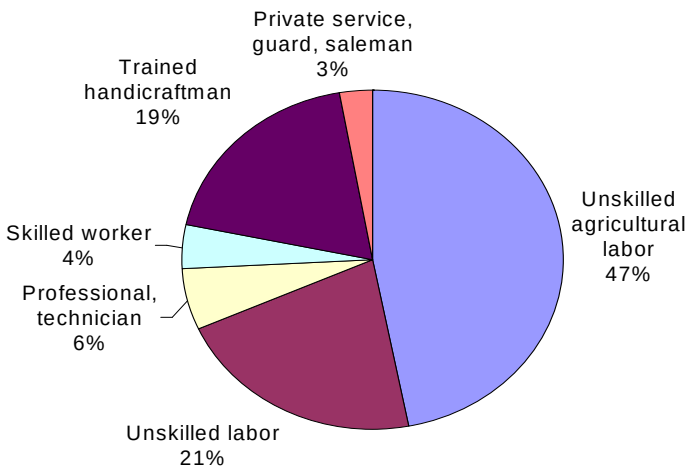
The results show that young people living in families where both parents are living are less likely to be in paid employment. The higher the economic status of the family, the less likely are youth to work and vice versa. Likewise, children of unemployed fathers with many children are more likely to be employed than those whose fathers have a job and have fewer children. These results are reasonable given that the economic hardships of families push young people into the labor market.

Work experience of young people is also affected by whether they live in urban centers or rural areas. Compared to rural youth, those living in cities or towns are more likely to participate in paid work at higher participation rates. Most of this difference is attributed to the urban opportunities to work for pay and for youths to earn cash income for themselves and for their families.

4.1.2. Occupation and industry

We now focus on occupations and industry that young people reported in the survey. The information reveals sectors where young people are working for pay. The analysis refers to working youth. About 46 percent of the respondents, who reported not working for pay at the time of SAVY, are excluded in this analysis. In terms of occupation, two-thirds (68 percent) of working youth fall within the occupational categories of "simple" jobs (i.e., unskilled labor in agriculture or non-agriculture activities). Trained handicraft workers make up the second-largest classification of young workers.

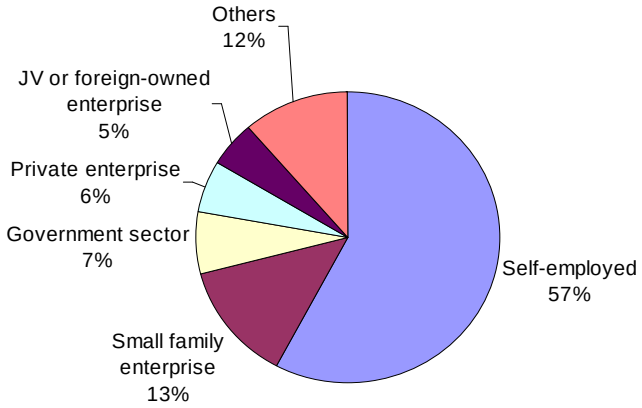
Figure 1: Current paid work of youth by industry and sector in Vietnam, 2003



Source: SAVY 2003

Vietnam is primarily a rural economy with 75 percent of people living in rural areas and agriculture remaining a dominant economic sector. This is reflected in the pattern of youth employment as reported in SAVY. Figure 1 demonstrates that a majority of youth in Vietnam is engaged in farming and that most young workers lack skills. Their work is the least likely to be recognized as valuable as skilled workers and diminishing their income. This suggests that more resources are needed to engage young people in skill-training, and to create jobs.

Figure 2: Current paid work of youth by occupation in Vietnam, 2003



Source: SAVY 2003

As shown in Figure 2, the majority (57 percent) of working youth engaged in the labor force are self-employed, mainly in farming, while 13 percent of working youth are involved in

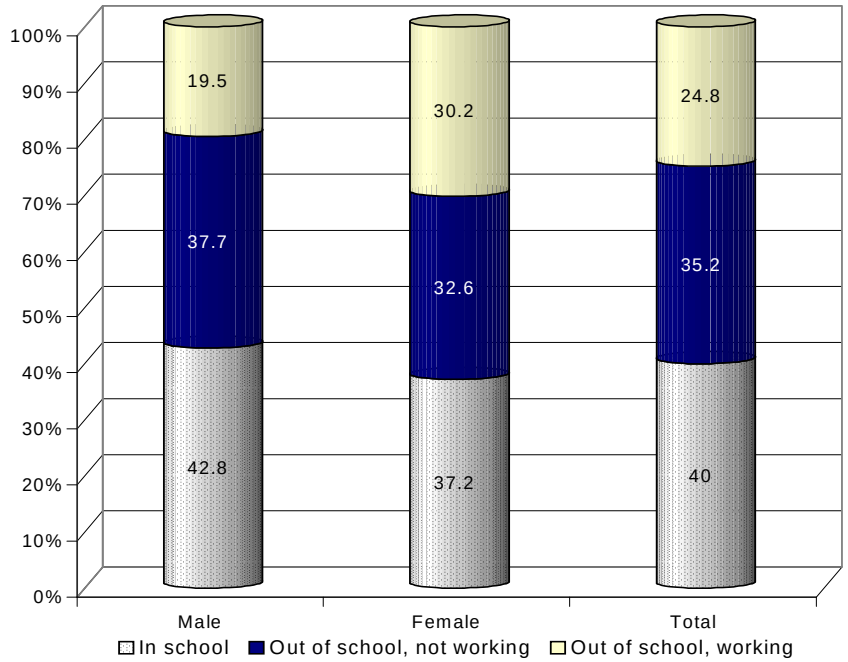
small family enterprises. Additional information from the SAVY data reveals that two-thirds of the self-employed youth worked as unskilled agricultural workers at the time of the survey. They seem to be on the low end of the pay scale and are faced with the most disadvantage and hardship. The remainders of working youth are classified in other institutional sectors.

The figures show that private sector and joint-venture sectors each accounts for less than 6 percent of working youth, suggesting that limited opportunities are open to young workers. Even the government sector provides only 7 percent of jobs for currently working youth. It appears that various benefits associated with government work—cash income, skill development, social status, experience, and development opportunities—are not open to most young people today. As reforms to the public and private sector continue, the rate of state employment for youth is likely to decline further.

4.1.3. School and work

School in addition to work is an important activity for young people. Education is important for both human development and life skill development. However, as youths are often the main sources of social security and strong labor for their families, parents deploy young people for work. According to the SAVY results, 20 percent of school drop-outs leave school as a result of the labor demand for supporting the family. The SAVY data reveal that only 40 percent of youth were in school at the time of the survey, including those at college or university. About 35 percent were out of school but were working. Interestingly, 25 percent of the respondents were neither attending school nor working. A much higher proportion of females (30 percent) than males (19.5 percent) belongs to this category (Figure 3).

Figure 3: Schooling and work status of female and male youth aged 14–25, Vietnam, 2003



Source: SAVY 2003

The large proportion of young people not working and out of school is a concern from a policy perspective. Why are the youth neither working nor studying? Does a lack of opportunities for employment put them in such a situation? Does the demand for work in the

household keep them from attending school? According to SAVY data, about 4 percent of the respondents never went to school, and 20 percent of the out-of-school youth reported that they left school because of obligations to work for family survival.

Table 4: Percentage distribution of youth by school-work status, and individual and familial characteristics, Vietnam, 2003

Characteristics	*Sub-group*	*Youth group*		
		In school only	*Out of school, not working*	*Out of school, working*
Gender	Female	53.5	39.2	53.7
	Male	46.5	60.8	46.3
Age group	14–17	78.8	25.4	19.3
	18–21	19.4	46.9	39.4
	22–25	1.8	27.7	41.3
Marital status	Married	0.2	27.2	25.5
	Single	99.8	70.8	74.5
Educational attainment	Primary	3.0	28.1	27.9
	Lower Sec.	57.2	44.9	43.9
	Higher Sec.	34.5	22.6	18.1
	College/Univ	5.3	23.9	10.1
Ever worked as a child laborer	Yes	45.9	18.2	21.0
	No	54.1	81.8	79.0
Ever migrated to earn a living	Yes	1.4	14.9	27.1
	No	98.6	85.1	72.9
Substance use *	Yes	28.3	42.9	54.8
	No	71.7	57.1	45.2
Premarital sex	Yes	1.2	9.7	13.4
	No	98.8	90.3	86.6
Poor physical or mental health	Yes	56.8	9.7	13.4
	No	43.2	90.3	86.6
Ethnicity	Kinh	88.2	76.6	86.0
	Other	11.8	23.4	14.0
Family economic status	Low	26.0	45.9	39.8
	Middle	42.3	38.4	40.1
	High	31.7	15.7	20.1
Living parents	One dead	6.0	11.3	11.3
	Both alive	94.0	88.7	88.7
Number of siblings	1	10.0	29.5	29.5
	2–3	62.9	40.0	40.0
	4+	27.1	30.5	30.5
Paternal occupation	Professional	32.9	20.3	20.3
	Unskilled	11.6	8.9	8.9
	Agricuture	51.2	65.2	65.2
	Unemployed	4.4	5.6	5.6
Type of place of current residence	City	14.9	7.1	7.1
	Town	13.9	8.7	8.7
	Rural	71.2	84.2	84.2
ALL		40.0	24.8	35.2
N [number of cases]		3,036	1,882	2,666

Note: * Includes use of heroin, illicit drugs, alcohol, or tobacco. Percentage is totalled by column for each of the variables.

Source: SAVY 2003

We next identify the characteristics of the three different groups of youth as reported in SAVY: at school, at work, and neither studying nor working. Table 4 presents the distribution of the three groups in school-to-work transitions. The group of currently in-school youth includes

mainly single, female teenagers aged 14–17, with secondary education. Very few in this group had migrated for economic reasons, although about 46 percent had experience with child labor. Members of this group have better health, lower risk-taking behaviors, and live in families with relatively higher economic status. Those in school are more likely to live with living parents, and their fathers are more likely to be professionals.

In contrast, the group of out-of-school youth who are not working tends to be young adult males aged 18–25. Most have a primary or lower secondary education, although a number of them hold college or university degrees. The high proportion of college and university graduates in this group indicates a mismatch between current human resources and labor market demands in Vietnamese society. Compared to their counterparts in the first group, members of this group are more likely to have migrated in search of work. A greater proportion of them live in low-income families with only one living parent. Their fathers tend either to be unemployed or to work as unskilled farmers in rural areas.

The third group includes youth who already dropped out or finished school, and who at the time of the survey were working for pay. Members of this group share mixed characteristics with those of the other two groups. In particular, they are mainly single females of older ages who generally have a primary or lower secondary education. Many young people with paid employment have migrated for economic reasons. A small proportion of them have experienced substance use and premarital sex.

Employed youth tend to live in families with average economic status; their fathers are more likely to be unemployed or to work in low-skilled jobs. Like the in-school group, and compared to the second group, more members of this group currently reside in urban areas than in rural ones.

Compared with their counterparts and especially with in-school youth, those who are not in school or in employment have many more risks and many fewer protective factors than their peers. Youth without links to social institutions at school and work may be less protected in the transition from school to work. The fact that one out of four youth are in this category should be a concern for policy makers.

4.2. Youth employability

4.2.1. Current status of youth employability

The concept of employability contains two major aspects: the competence and skills for the current market (or the supply side) and the access to employment opportunities (on the demand side) (see Appendix 1). It must be emphasized that there are several different youth labor markets. SAVY provides information on job search and vocational training for young people as part of an examination of employability of Vietnamese youth.

Table 5 displays the rates of job search and vocational training among young people as reported in SAVY. Of the total sample, about 15 percent reported that they were looking for jobs at the time of the survey. There are no significant differences in the rates of job search across gender, marital status, and ethnicity. The likelihood that young people are engaged in job search increases with age, number of siblings in the household, and levels of educational attainment. Notably, 31 percent of youth with college/university degrees were looking for employment at the time of the SAVY, suggesting that there may be some weaknesses in systems for education, training, and placement. Although there are also factors on the demand side, there is a general consensus that the skills taught and knowledge learned are mismatched in Vietnam with those needed by employers in the labor market. This continues to pose a problem for young people. Most youth want to go to university and see higher education as the ticket to the future. Over 90 percent of the current school children want to enter university, as reported by SAVY; however, enterprises and employers are not committed to employ them as they tend to value experience

over academic coursework. More and more jobs today do not require an academic education. Unless changes are made, this will continue to be a big problem in the future.

Table 5: Youth employability by individual and familial characteristics, Vietnam 2003

Characteristics	*Sub-group*	*Job search and Employability*		
		Currently looking for job	*Ever received job training*	*Got a job with the training*
Gender	Female	15.4	18.1	66.5
	Male	15.8	19.7	67.8
Age group	14–17	7.2	8.2	33.1
	18–21	22.9	24.7	68.8
	22–25	21.6	32.0	67.6
Marital status	Married	13.9	22.6	74.1
	Single	15.9	18.2	64.8
Educational attainment	Primary	17.3	12.4	78.9
	Lower Sec.	12.1	17.6	71.6
	Higher Sec.	16.5	23.6	58.0
	College/Univ	30.8	35.9	58.7
Ever worked as a child laborer	Yes	20.0	12.1	70.7
	No	22.4	31.1	78.1
Ever migrated to earn a living	Yes	29.5	28.7	77.7
	No	13.4	17.3	71.7
Substance use*	Yes	20.5	24.8	69.5
	No	12.1	14.8	63.8
Premarital sex	Yes	23.4	32.6	69.1
	No	14.9	17.7	66.8
Poor physical or mental health	Yes	17.4	18.5	64.4
	No	12.5	19.6	71.3
Ethnicity	Kinh	15.9	21.1	67.7
	Other	14.1	6.5	52.5
Family economic status	Low	17.4	12.4	64.4
	Middle	15.1	20.4	72.9
	High	13.7	26.3	60.9
Living parents	One dead	22.0	19.9	75.0
	Both alive	14.9	18.8	66.1
Number of siblings	1	13.9	23.5	68.9
	2–3	15.7	19.4	66.5
	4+	16.6	14.5	65.5
Paternal occupation	Professional	14.4	23.9	63.9
	Unskilled	16.8	21.4	60.9
	Agricuture	15.3	15.0	69.1
	Unemployed	20.5	29.1	74.3
Type of place of current residence	City	18.4	28.9	64.6
	Town	13.8	23.9	68.0
	Rural	15.4	18.9	67.6
ALL		15.6	19.0	67.1
N [number of cases]		7,585	7,585	1,012

Note: * Includes use of heroin, illicit drugs, alcohol, or tobacco

Source: SAVY 2003

The SAVY results also show that higher proportions of young people with poor health or risk-taking behaviors look for jobs as compared to those without such behaviors. Not surprisingly, young people living with only one parent are more likely to search for jobs, and the demand for employment among youth decreases with increasing family economic status and

father's occupational status. A relatively higher proportion of urban youth look for jobs compared to their counterparts living in towns or rural areas.

Turning to job training, 19 percent of the respondents have been involved in vocational training with 13.4 percent of the total sample having completed such training and 5.6 percent in the process of being trained. As shown in Table 5, there are again significant differences in the rates of job training by gender and marital status. However, a fairly small proportion of ethnic minority youth received job training as compared to the *Kinh* youth. This is probably due to limited access of these groups to training facilities. Other groups facing difficulties in gaining access to vocational training are: those aged 14–17 years old, young people with little education, youth who have been in child labor, those from poor families, and rural youth.

Of those who had received vocational training, two-thirds (67 percent) found a job with the skills they were provided. One-third (33 percent) could not find the job for which they had received training. The SAVY data do not indicate whether these young people already had a job when they received the training. However, the data can show the varying experiences in youth employability. The better-employed youth include those of older ages (18–25) and those with primary or lower secondary education. They are more likely to be *Kinh* youth and living in rural families with low or average economic status. Noteworthy is that the rate of employability among children of farmers is highest. These results are not surprising as they reflect the type of work and job training that young people receive. As already mentioned, rather than become unemployed, these young people become self-employed or work in small family enterprises. The SAVY data do not, however, specify the types and contents of vocational training or the actual skills and knowledge youth received.

4.2.2. Youth's aspirations and attitude toward work

Despite the severity of the other challenges facing the young generation, 50 percent of young people identify employment as the most important issue relating to their future. Two-fifths (41 percent) of SAVY respondents recommended that the government's highest priority should be increasing opportunities for jobs in terms of improving the lives of youth. Education alone is clearly not the answer for young people's successful transition from school to work.

It is worth mentioning that the aspirations and attitude toward work among the young are not significantly different for different groups defined by individual and family characteristics (results not shown). This suggests that young people today, regardless of their differences, are all concerned about employment opportunities and decent jobs. It is important that more efforts should be put into job creation in Vietnam by more effectively linking education and training to economic growth and the global economy.

4.2.3. Youth schooling, employment, and health

Given the cross-sectional nature of the SAVY data, the present analysis examines the correlation—not the causal relationship—between employment and health. Specifically, what is the relationship between being out of school, unemployed, or employed with a range of health risk behaviors such as substance use, premarital sex, and contraceptive practice? To the best of our knowledge, this is the first study to look at the links among these variables.

The results in Table 6 indicate that young females are less likely to be exposed to risks than are young males. Youth who are in school are less likely to experience substance use, premarital sex, and poor health. The pattern is similar for young men and young women. The results suggest that schooling is a protective factor. Unfortunately, the sample was too small to look at differences in contraceptive use.

Table 6: Health risk behavior of different youth groups by gender, Vietnam, 2003

Youth group	*Health risk behaviors (%)*			
	*Substance use**	*Premarital sex*	*Poor physical/ mental health*	*Not using contraceptives*
MALE				
In school	36.0	3.2	55.1	96.8
Out of school	70.3	18.1	67.4	96.2
FEMALE				
In school	21.8	0.2	59.9	95.5
Out of school	32.3	6.6	64.9	94.3
MALE				
Unemployed	60.5	16.1	71.8	96.8
Job seeker	74.5	20.3	71.3	96.8
Other	51.1	9.6	59.9	96.4
FEMALE				
Unemployed	35.8	3.4	68.7	93.9
Job seeker	36.9	3.2	67.6	97.8
Other	26.6	4.2	62.0	94.4
MALE				
Ever migrated	78.3	20.1	72.3	98.4
Other	49.5	9.3	59.5	96.1
FEMALE				
Ever migrated	38.1	5.1	67.9	95.3
Other	27.0	3.9	62.3	94.7

Note: * Includes use of heroin, illicit drugs, alcohol, or tobacco
Source: SAVY 2003

Young males who are currently looking for jobs are most likely to be exposed to health risk behaviors. The level of substance use among male youth is double that among female youth. Those who are unemployed or who are looking for jobs tend to experience premarital sex and poor health. Likewise, male migrants are likely to be most exposed to these risks. In general, it becomes clear that migrant youth, the unemployed, those looking for jobs, and those who are out of school are most vulnerable. Effective measures must be taken to safeguard these youth groups from health risks and enhance their development.

4.3. Factors associated with youth employment and employability: Multivariate results

Although the above descriptive analysis has partly described relationships between youth characteristics and employment outcomes, our main goal in multivariate analyses is to identify key factors associated with youth employment and to gauge their net effects, controlling for the confounding factors.

Two main aims are involved here. The first is to assess whether there are systematic variations in employment outcomes among different groups of young people. The second is to better understand how school status affects work experience. To do this the analysis will explore the relationships between employment and other factors. We ask whether the effects of individual characteristics are shaped by family status, particularly that of the fathers. In this section, due to space limitations, we present the regression estimates of the multivariate analysis. The model specifications are presented in detail in Appendix 2. Readers unfamiliar with regression techniques might wish to skip the figures and proceed to the below summary of the findings.

Table 7 summarizes the results of a series of regression estimates that identify factors associated with the probabilities of work, job search, and job training among Vietnamese youth as reported in SAVY. Estimated odd ratios are used with levels of statistical significance chosen

at p<0.05. A value of odd ratios greater than 1 indicates that members of the sub-group of youth have a higher likelihood of work, job search, and job training. On the other hand, a value under 1 suggests that those belonging to the sub-group have lower probabilities to work for pay, to look for jobs, and to receive job training.

Table 7: Factors associated with the probabilities of youth work, job search, and vocational training in Vietnam, 2003

Covariates	Sub-group	Odd ratios [exp(ß)]		
		Currently working	Currently looking for job	Ever received job training
Gender	Female *(Ref)*	--	--	--
	Male	1.18 *	0.80 *	0.95
Age group	14–17 *(Ref)*	--	--	--
	18–21	5.04 *	3.47 *	3.89 *
	22–25	12.85 *	3.76 *	6.50 *
Marital status	Married *(Ref)*	--	--	--
	Single	1.21	1.93 *	1.48 *
Educational attainment	Primary *(Ref)*	--	--	--
	Lower Sec.	0.70 *	1.16	2.42 *
	Higher Sec.	0.36 *	1.44 *	2.17 *
	College/Univ	0.58 *	2.79 *	1.81 *
Ever worked as a child laborer	Yes	4.48 *	1.89 *	0.98
	No *(Ref)*	--	--	--
Ever migrated to earn a living	Yes	2.56 *	1.90 *	1.42 *
	No *(Ref)*	--	--	--
Substance use	Yes	1.33 *	1.31 *	1.18 *
	No *(Ref)*	--	--	--
Premarital sex	Yes	1.20	1.20	1.45 *
	No *(Ref)*	--	--	--
Poor physical or mental health	Yes	1.18	1.35 *	0.97
	No *(Ref)*	--	--	--
Ethnicity	Kinh	1.82 *	1.23 *	2.71 *
	Other *(Ref)*	--	--	--
Family economic status	Low *(Ref)*	--	--	--
	Middle	0.93	0.75 *	1.29 *
	High	0.70 *	0.49 *	1.33 *
Living parents	One dead	1.13	1.29 *	0.94
	Both alive *(Ref)*	--	--	--
Number of siblings	1 *(Ref)*	--	--	--
	2–3	1.19	1.28 *	0.88
	4+	1.12	1.41 *	0.78 *
Paternal occupation	Professional	1.02	0.92	1.36 *
	Unskilled	1.26 *	1.15	1.28 *
	Agricuture *(Ref)*	--	--	--
	Unemployed	1.50 *	1.10	1.25
Type of place of current residence	City	1.48 *	1.12	1.16
	Town	1.11	0.92	1.30 *
	Rural *(Ref)*	--	--	--
N [number of cases]		7,584	7,584	7,584

Notes: (Ref) indicates reference group; * indicates p<0.05
Source: SAVY 2003

The probability to work is higher for males than for females. The probability is significantly increased with the age of youths but decreases with higher levels of education. Notably consistent with the bivariate analysis, the greatest odds ratio of those young people with university degrees currently looking for jobs suggests that this group of university graduates

represents a hidden unemployment problem. The supply of academic degree holders has actually exceeded the demand of employers and society.

Ethnicity and types of place of residence also significantly affect the probability to work: Kinh youth and urban youth were more likely to be in employment. The patterns of effects also show that young people who have been in child labor and who have migrated for economic opportunities are more likely to be currently working. Perhaps early childhood work and previous experience of economic migration can provide young people with labor market practice. They are more likely to currently work or look for jobs, which could subsequently lead to increased work experience, making it easier to find employment.

Among the covariates describing the family characteristics of the young person, the multivariate results show that economic status is negatively associated with the probability to work. The higher the status, the lower the likelihood for youth to work, other things being equal. For example, young people living in families with high economic status are 30 percent less likely to work for pay than those from families with low economic status. This suggests that youth from better-off families tend to be in higher education and hence not at work. The results also show that living with or without both living parents is not a significant predictor of youth employment. Other aspects such as number of siblings do not show a significant influence on work in the multivariate results.

Closer examination of data on youth employment shows that males are less likely to be looking for a job, suggesting the gender gap in the labor market. Among indicators of school-to-work transition and transition to adulthood, the effect of marital status is significant with single persons being more likely to be job seekers. The probability that a young person is seeking employment increases significantly with age and education. Young people having earlier experience with child labor and economic migration are more likely to look for jobs, though many of them are currently working. To some extent, the obtained results have suggested that both underemployment and demand for better jobs are always primary concerns of young people today.

Interestingly, there is no significant statistical difference in young people's probability to look for jobs by paternal occupation and place of residence. In general, where the household is located is not an important factor in determining the likelihood of job search. These results point to the high demand for work and suggest that youth unemployment has become a critical problem in society for rural and urban regions alike.

The effects of individual and familial factors on job training are somewhat different from their effects on youth work and job search. Controlling for other factors, gender difference in job training disappears. While the likelihood of receiving job training increases with age, it declines with higher education. This may be due to the fact that youth in general education are less likely to receive job training, whereas those who drop out of school are more likely to seek job training.

Not surprisingly, family economic status is strongly associated with job training. The relationship proves to be linear in that the higher the status, the higher the probability of a youth's receiving job training. Children of non-farming fathers have a higher probability to be trained vocationally and hence have a higher chance of being employed. Children of farmers are likely to find jobs on the farm that do not require outside training. The effects are statistically strongly significant. Except for the group of youth living in towns, there are no differences in access to job training opportunities between rural and urban youths.

5. Conclusion and Policy Implications

The evidence that rigorously quantifies youth employment and their school-to-work transition is quite limited. The strength of the analysis presented here is twofold: First, we present a comprehensive analysis linking youth employment to schooling and employment to health. Second, the regression analysis, although very limited in scope as is any multivariate model, does attempt to capture some of the complexity of the factors affecting youth work status and employability. The results are thus more robust than any bivariate analysis performed in previous descriptive studies. The obtained results have confirmed many of the factors included in recent nationwide policy discourse regarding youth employment.

The market transition in Vietnam involved a drastic turn in young people's transition from school to work. Today, Vietnamese youth generally enter the labor force out of economic necessity in order to help reduce the vulnerability of their households and their own livelihoods. Our analysis explored the aspect that different individual and family conditions lead to different work and health-related outcomes among Vietnamese youth. The significance of a number of important factors—such as gender, age, education, ethnicity, and family economic status—suggests that these factors are strong determinants of youth employment. To a large extent, they define the supply-side structure of the youth labor market. Certain disadvantaged groups of youth such as single females, the relatively young, and those living with one living parent in poor families are more likely to look for jobs today. Being either unemployed or underemployed, these groups of youth wish to improve their situation by looking for employment and suitable jobs.

The results of our analyses, both bivariate and multivariate, strongly suggest that family serves as an important factor in determining the youth employment experience. In fact, the family in which a young person lives is the strongest predictor of his or her future in the job market. The significant effects of paternal occupation, parental availability, and family economic status are notable in the analytical results. The probability to work is reduced when young people live in better-off families. Likelihood to receive job training is enhanced when the father is in a professional or technical job, when the youth belongs to the *Kinh* group, and when the youth is residing in urban centers. Families can provide significant social and financial supports to enable the favorable transition from school to work for young people. All these factors combine to make the placement and promotion of their employment easier in the labor market.

The strength of the analysis is also reflected in the statistically significant effects of factors reflecting young people's transition from school to work and to adulthood. Young people's risk-taking behavior has also associated closely with their work status. One piece of evidence is the fact that large proportions of unemployed youth try smoking and alcoholic drinking (which are acceptable behaviors among adults) and that they begin to initiate these behaviors during their school-to-work transition. Specifically, out-of-school youth, migrant youth, and those who are unemployed or are job-seekers are most likely to be exposed to health risk behaviors. This means that in the near future, the prevalence of risk-taking behaviors and subsequent health outcomes will probably increase with youth leaving school or the parental home and engaging more in work for pay. To prevent such a trend, effective measures and information that are strong enough to change their attitudes and behavior should be reinforced.

The overall results of the present analysis suggest that not only will a scientific study of the subject help improve our knowledge of the determinants of youth employment, but it will also provide us with reliable evidence to design policies to assist young people in today's labor market. In some ways, the study results confirm and strengthen the current policy directions concerning youth employment. Following are policy implications drawn from the findings within this paper.

First, the youth is a diverse social demographic group with different characteristics such as age, gender, marital status, ethnic origin, levels of education, siblings and parents, family conditions, and place of residence. The conventional understanding of youth as a homogenous group is no longer relevant: it is imperative for policy and program planners to avoid basing their decisions on such a misunderstanding. Policies must be therefore specific enough to meet the needs of each of these groups. The formulation of policies for youth, including employment policies, should recognize that young people (between the ages of 14 and 25) include different social and demographic groups, have different needs, and are shaped by different sets of factors in their school-to-work transition. Their pathways to employment and health development are also diverse.

Second, given the disproportion of youth currently working in small family business and self-employed in the agricultural sector, it is important to coordinate with local authorities and communities to help young people start and improve their own businesses. This includes the generation of job opportunities through small and medium enterprise development. For example, traditional craft production in the Red River Delta provinces should be developed and linked to international export markets to create proper jobs with adequate incomes, ensuring non-farming income for rural youth and their families. It is also important to make it easy to start and run enterprises through training and credit to provide more and better jobs for young women and men. As young people are often the only source of social security of their families, the need of parents to deploy their young children to work is salient and critical. Too often availability of jobs is limited to the most educated and urban residents, sidelining young females, ethnic minorities, and rural youths. Reducing socio-economic differences should be a policy priority. Efforts aimed at poverty reduction, employment promotion, and income generation for families can limit the need for children to seek economic livelihoods.

Third, enhancing the employability of Vietnamese youth first requires the strengthening of the macro-level linkages between the education system and the labor market. Education and academic degrees are only a means to an end and are not an end in themselves. The need to improve the quality of education, as well as the need to adapt curricula in schools and vocational centers to produce the appropriate skills and job experience as demanded by employers and competitiveness of the labor market, has already been discussed. Employability requires new sets of appropriate skills which are usable in labor markets. In order to address these issues, it will be necessary to build capacity and accountability of employment services and job counseling and to improve the linkages of job training to labor market needs.

Fourth, minimizing skill mismatches and matching skills to demand is a key to improving youth employability. The high proportion of university graduates currently looking for jobs and the fact that only over half of them are in a job with the training they received indicate the huge gap between supply and demand for education, training, and experience in the rapidly changing labor market in Vietnam. A central policy issue is the mismatch between the expectations and reality of the labor market. At present, university education and obtaining academic degrees remain highly desired by young people and their parents as the ticket to the future. Although practical skills rather than textbook knowledge are required in today's labor market, vocational training is perceived as being less prestigious because it does not help young people to become state officials or to achieve upward mobility in the society. As a result, those with university and higher education are more likely to be unemployed or work at jobs unsuitable to their education. The labor market tends to value experience over academic qualifications. Policy makers should consider lowering the investment in expanding or constructing new colleges and universities. Effective messages, better information, and job orientation should therefore be provided to young people, their peers, and their families in order to change attitudes and behaviors about education and training.

Fifth, effectively addressing youth employment also needs a comprehensive approach to overcome specific risks increasingly faced by certain disadvantaged groups of youth. Issues related to vulnerability and health of unemployed, migrant, or out-of-school youth are key policy concerns. In this regard, the issue of gender is particularly interesting as the results show the relatively higher health risks for young males. While it is necessary to provide special support to help raise the status of these disadvantaged groups of youth in the labor market, it is very important to reduce harmful aspects of their exposure to health risks. In the current context, the family and its support system—both financial and human—is essential for young people who are leaving school and in the process of entering the labor market.

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Appendix 1: Key Concepts of Employment in this Paper

Employment: According to Article 13, Chapter II of the Labour Code of Vietnam, "any working activities which generate income and are not prohibited by laws are recognized as employment." Employment can be defined in the forms of: (1) employment which is paid in cash or in kind or by mutual help, (2) self-employment to earn income for oneself, or (3) activities of production, business and service for one's own family and no wage or salary is received.

Employed: Employed are all persons aged 15 and over in the labor force and those who are defined as being involved in one or more of the above-mentioned forms of employment in the last seven days. Employed youth refer to those aged 15–24 who are involved in employment in the labor force.

Employability: This concept refers to the ability of a person to be employed given his/her demand for jobs, skills, training, and capability to work. The concept of employability contains two major aspects: the competence and the access to employment opportunities. Vocational training is usually a means to help young people to achieve their career goals. Youth employability relates to the ability of young people in obtaining jobs in the labor market.

Unemployed: Unemployed are all persons aged 15 and over who were not employed during the last seven days and (1) had actively looked for work and (2) had been available. Because of lack of skills, and the hurdle associated with obtaining the first job, the level of youth unemployment has always been higher than the rate of general unemployment.

Underemployment: The state of employed persons who were employed but worked less than 36 hours in the last seven days and would have been available for work if the job had been available.

Labor force: Labor force or economically active population includes all people who are at age 15 or above and are employed, and those who are not employed but able to work and have a demand for a job. In this regard, those outside the labor force refer to the economically inactive population that includes all people who are aged 15 or above but who are excluded from the employed component and from the unemployed.

Working age people: People at the working age outside the labor force (equivalent to economically inactive population at the working age) include all people who are of working age (men aged from 15 to 60 and women from 15 to 55) and are excluded from the employed component and from the unemployed.

Economically inactive people: People who are economically inactive include those who are going to school, are serving as housekeepers for their own families, are old or ailing for a long time, are handicapped, or are unable to work.

Appendix 2: Model Descriptions of Multivariate Analysis

Three observed outcomes (work, employment, and vocational training) can be treated as dependent variables for inclusion in the multivariate regression models.

The first variable indicates whether or not the respondent was working for pay at the time of the survey. The second dependent variable is whether the respondent was looking for a job, which reflects the access to the job market among youth. The third work-related variable indicates whether the respondent received any vocational/job training. This variable allows us to compare two groups of young people: those who have received some form of vocational training and those who have not.

As such, all three variables are binary; they are coded 1 with a positive response and 0 with a negative response. The independent variables may be classified into the following two groups: measures of socioeconomic characteristics of the individual youth and those of the family. A macro-level factor, such as type of current place of residence, works as a control variable in the statistical models. The analysis is applied to all surveyed young people who were interviewed in the Survey Assessment on Vietnamese Youth (SAVY).

Because the dependent variables are binary, logistic regression models can be used. The model to be estimated for each measure of work-related behaviors can be specified as follows:

$$log\ [p/(1-p)] = a + ß_i X_i + \varepsilon_i, \quad (1)$$

where

- *log [p/(1-p)]* is the log odds of the health care behavior, which represents the dependent variable,
- *a* is the intercept,
- $ß_i$ is the estimated regression coefficient,
- X_i is the independent variable whose effect is examined, and
- ε_i is the regression disturbance term.

The variables included in the model represent the effect of a wide range of factors influencing youth work and employment. We assume that *Xi* are statistically exogenous to εi so that equation (1) would produce consistent estimates of the *ßi* as well as their standard errors. This is a strong and potentially objectionable assumption. For categorical variables, a positive coefficient indicates an increase in the log odds for the particular category relative to a reference category, while a negative coefficient indicates decreased log odds. By exponentiating the coefficients we obtain estimates of the relative odds (odd ratios) associated with a particular category of a covariate of interest. We use ***z*** test to assess the significance of the impact of individual variables on the odds of being employed, looking for jobs, or receiving vocational training as opposed to the reference category. Using the SPSS/Win, we have estimated the models using the above-described equation (1).