

Willing, but Unable: Examining the determinants of interest  
in job training programs in rural Vietnam\*

Ryan P. Gockel

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## I. Introduction

In the aftermath of the Second World War and the Great Depression, many member countries of the Organization for Economic Cooperation and Development (OECD) began to develop and promote active labor market policies (ALMPs) to tackle the issue of unemployment [Betcherman *et al.*, 2004]. Previously, many governments addressed unemployment with “passive” labor policies, such as unemployment insurance, that did not require or encourage the unemployed worker to take retraining courses or some other “active” measure. The post war boom, along with changes in political attitudes, made ALMPs more palatable to European and American governments [Martin and Grubb, 2001]. These new labor policies “actively” encouraged unemployed individuals to retrain and acquire new skills. In the United States and many European countries, governments promoted job-training programs as one of the best tools to tackle unemployment and poverty. These policies became the foundation for many of the current labor policies throughout developed world. In the past several decades, governments in the developing world have also begun to adopt these policies.

Most countries in Asia do not have a strong tradition of active labor market policies. However, Asian governments have recently begun to support more of these types of labor policies [Betcherman *et al.*, 2000]. Vietnam provides an interesting case study because of the issues it faces regarding unemployment in the agricultural sector because of its sustained industrialization. In the twenty years since Vietnam began the process of *doi moi*, the liberalization of its economy, the country has achieved significant macroeconomic success [Barslund and Tarp, 2008], and has maintained a relatively low rate of unemployment. In 1997, the unemployment rate was 2.9 percent; it declined to 2.1 percent in 2004 [ILO Labor Statistics, 2005].

The recent global economic crisis is of particular concern for Vietnam. Much of its recent economic growth has been due to foreign direct investment and technological advances, and has not necessarily added new jobs to the economy [UNDP Technical Note, 2009]. The growth in jobs is also disproportionate- many of the gains have been in service, construction, and the government sector, while every year roughly 200,000 workers leave the agricultural sector [UNDP Technical Note, 2009]. Vietnam faces significant challenges in this new century because increasing levels of globalization and modernization are transforming all aspects of Vietnamese life. Yet for all its economic growth, Vietnam remains a rural, agriculturally dependent country.

In Vietnam, 70 percent of the population lives in rural areas [World Bank, 2006]. According to the International Labor Organization (ILO), agricultural workers comprised 53 percent of the Vietnamese work force in 2007 [ILO, 2008]. Vietnam does not have a tradition of active labor market programs since the Communist government played a significant role in the Vietnamese labor market. Recently, with Vietnam’s move toward a more mixed economy, government and NGOs began to experiment with job training programs. The Communist Party of Vietnam identified “employment creation” as a high priority for socioeconomic development [ILO, 2008]. The government originally aimed to train 30 percent (with vocational trainings accounting for 22 percent), but is now striving for close to 50 percent [ILO, 2008]. One future goal is to effectively target populations that could most benefit from job training programs.

In March 2008, a survey conducted in Vietnam showed that over 90 percent of the surveyed population wanted to participate in a training program, reflecting a growing interest in job training/skills workshops. In the previous year, the Peoples’ Committee and

the Farmer and Women's unions organized several one and two day training programs at no cost in the communes. Given their apparent interest in job training, it is surprising that, when asked if they had participated in a training program in the past year, only 41 percent of respondents had. Further, the majority of the people who said they had participated in a training program were relatively old and wealthy – the very populations that, in theory, receive the lowest marginal benefits from participation. This indicates a growing need for examining not only household and individual characteristics, but also the behavioral factors that influence the decision-making process. These anomalies are a concern for development interventions that target the poorest individuals.

## II. Background

### *Active labor market policies in the developing world and Risk*

In the past four decades, OECD countries have spent increasingly large proportions of their GDPs on active labor market policies, but these policies have had mixed results [Martin, 2000]. Social expenditures make up a significant percentage of the GDP for many European countries. For example, in 2000, Nordic countries spent almost three percent of GDP on labor programs, with 46 percent of that to fund active labor market programs. Western European countries have a similar proportion devoted to labor market programs [OECD database on labor market programs; Martin and Grubb, 2001]. Job training programs are only effective when there is an adequate supply of job vacancies and growth in the overall economy, challenging conventional ideas about labor programs [Martin, 2000].

The primary types of active labor programs are formal classroom training, on-the-job training, job search assistance, employment subsidies, and direct job creation by the government. Previous evaluations of these programs have explored which types of active labor market programs appear to be most cost effective. Programs can affect different segments of the population in a variety of ways, depending on the population a government wants to target. Several evaluations have been conducted regarding program effectiveness through the lens of curbing unemployment for a given population [for detailed evaluation results see Denny *et al.*, 2000; Carling and Richardson, 2001; Fay, 1996; Friedlander *et al.*, 1997 and Larsson, 2000]. For example, programs like on-the-job training appear to help women re-entering the workforce, but do not seem to help men in a meaningful way [Martin and Grubb, 2001]. The primary reason these programs have been used by governments is that they are popular socially and politically, unlike unemployment insurance or welfare assistance. Most governments have a combination of active and passive labor policies.

In the past decade, governments and nongovernmental organizations (NGOs) have begun to shift their labor market policies toward the active model to address unemployment in the developing world. This makes the study of ALMPs and other labor market policies even more relevant [Betcherman *et al.*, 2000]. A major challenge ALMPs face in the developing world is poorly functioning labor markets. These market failures make it difficult for employers to obtain qualified employees who have the skills they are looking for. A poorly functioning labor market makes it more difficult for workers to find employment, as well as the training they need to become more qualified applicants. In theory, ALMPs help to mitigate labor supply problems by investing in human capital via job-training programs.

When researchers analyzed the impact of ALMPs, they mainly examine the ratio between how much a government is spending and the corresponding effect on the unemployment rate [Martin and Grubb, 2001]. Little progress has been made in the targeting

of these programs to ensure that those who could benefit the most (i.e., disabled, low-income, or female individuals) are availing themselves of this opportunity [Bennell, 1999]. International organizations the United Nations Development Programme (UNDP) and the ILO are advocating for that job training should be a basic right for all human beings [ILO, 2008]. In addition, many developing countries have experienced large amounts of unrest due to the adverse effects of globalization that strike the poor of the developing world hardest.

Rural areas are at great risk than urban areas due to potentially adverse impacts of weather on crops, proximity to insects, and poor infrastructure. Risk is also more prevalent in the developing world because of these factors. Furthermore, those living in rural areas are often the least capable of insulating themselves from risky outcomes [Fafchamps, 1999]. In Vietnam, 70 percent of individuals live in rural areas and agriculture accounts for over 50 percent of Vietnam's GDP [World Bank, 2008]. Recently, job training for agricultural workers has been a priority for the government of Vietnam [ILO, 2008]. However, there is little evaluation of job training programs and participation levels in the agricultural sector. Previously, job training participation studies focused primarily on urban, industrialized, developed economies, and not on rural, agriculturally based, developing countries. Thus, there is a need for more rigorous evaluation of job training programs in the agricultural sector.

### *Economic Theories*

Since the end of the Cold War in the early 1990s, neoclassical economic theory has become the dominant school of economic thought in the world influencing most government policies and programs. Neoclassical economic theory is predicated upon the notion that people are rational, have perfect information, and will take the action that maximizes their private utility. The aggregation of individual choices leads modern economies toward efficiency and economic growth - not necessarily equality. Governments intervene to ensure a proper balance of efficiency and equity. In neoclassical economics, actions are based on an interaction between an individual's preferences and the existing constraints. Behavioral economics supplements traditional economic theory by examining other types of constraints relating to behavioral characteristics and risk perceptions. Over the past decade, behavioral science has been used with greater frequency, especially in the field of economics.

This case in Vietnam challenges our basic understanding of individual economic behavior. A disconnect exists between an individual's willingness to participate and actually participating. While some of this disconnect may be due in part to economic constraints, the analysis indicates that there are behavioral constraints as well that factor into determining participation levels.

The primary goal of this paper is to show the influence of risk perceptions on a rural individual's participation in job training programs. To illustrate this point, this study contains a multivariate probit regression model for an individual's participation in job training programs.

### III. Theory

#### *Dependent Variables: Previous participation in a job-training program*

In order to gain a better understanding of the preferences and constraints of individuals surveyed regarding labor programs, a series of questions was included to gauge an individual's willingness to participate in a future training program, as well as his or her history of previous participation. Of the 1,165 people surveyed, 93 percent (N= 1082) said they wanted to participate, and only 7 percent (N=83) said they did not (Willing To Participate=1). Although these are encouraging numbers for those organizing job-training programs, the province has a history of non-participation that may prove difficult to overcome.

For the analysis, a dependent variable capturing previous participation in the past year was used. This was used in order to explore the determinants of participation in a social program by rural individuals, and highlight the constraints individuals may be facing. The survey contained a question regarding previous participation in a training program in the past year: "During 2006-2007, have you participated in a job/skills training program?" Enumerators recorded responses as either affirmative or negative. In response to this question, 41 percent of respondents stated they had participated in a training program the previous year (N=479) and 59 percent responded that they had not (N= 686). So while over 90 percent of individuals stated they were willing to participate, only 41 percent had participated the previous year.

#### *Independent Variables*

Very little work exists for evaluating job training programs in the agricultural sector. This is especially true for the developing world. Most previous research examining job training programs evaluated government expenditures and corresponding effects on unemployment. Research by Heckman and Smith (1999, 2004), Jacobsen *et al.* (2005), and Kluve *et al.* (2008) focuses on determinants of participation in social programs. However, their research is primarily set in the United States and Europe. Many of the independent variables used in this study are based on previous research, but several variables capturing behavioral characteristics will be included as well as several variables relevant to the agricultural sector in rural Vietnam.

The issue of "creaming," or the self-selection bias into these programs, is consistently of concern in job training and other social programs. In other words, those who choose to participate are often not the ones who could benefit most from participation in the program. Anderson, Burkhauser, and Raymond (1993) and Heckman and Smith (2004) explored the degree to which a nonrandom selection of participants impacted selection rates in programs affiliated with the Job Training Partnership Act (JTPA) in the United States. The authors demonstrated that "creaming" took place.

**Table 1:** Summary of Descriptive Characteristics of Participants and Non-Participants

Descriptive Characteristics		Did Not Participate in Previous Year (%) (N=686)	Participated Previous Year (%) (N=479)	Total (%) (N=1165)
Age	Youth (17-30)	17	7	13
	Middle (31-45)	70	62	67
	Older (46-65)	13	31	20
Gender	Male	50	36	44
	Female	50	64	56
HH Wealth Compared to Commune Average	Below Average	33 58	27 60	31 58
	Above	9	17	11
Marital Status	Couple HH	93	88	91
No Savings over 200,000 VND		51	45	48
Risk Averse		54	48	52
Food Insecure		71	67	69
Receive Remittances		23	27	25

Therefore, those who have higher education and a greater level of resources may self-select into a program at higher rates. This study controls for this with a variable for years of education attained, as well as by including a variable that measures recall ability. Respondents were asked to repeat a series of numbers and how well they did was recorded. The recall variable records how many correct answers a respondent gave out of both 3 and 9 attempts. This information will be included in the model since it is expected that those with a higher recall ability will be more likely to participate in the training program due to the greater level of benefits they could receive.

Over 80 percent of surveyed individuals identified themselves as farmers, which is typical for rural Vietnam. Since the agricultural sector is so important in rural Vietnam, controls were included for ownership of livestock and the percentage of agricultural land with red book value. Survey data reveals that many of the job training/skill workshops most in demand focus on planting techniques, aquaculture, and raising livestock. **Table 2** shows the percentage of male, female, and total population who state what skills/techniques they are most interested in learning about. This data illustrates the importance of agriculture in Ha Tinh province.

**Table 2.** Proportion of population that responded what the skills they would want to learn would be by gender and technique

		Male (%)	Female (%)	Total (%)
Skills you want to learn	Planting Techniques***	45	58	52
	Livestock Techniques***	73	84	79
	Aquaculture***	10	4	7
	Job Skills**	5	2	3

Findings are significant at \*10%, \*\* 5%, \*\*\* 1%

$\chi^2 = 17.3$ (Planting Techniques),  $\chi^2 = 22.0$  (Livestock),  $\chi^2 = 19.4$  (Aquaculture),  $\chi^2 = 5.7$  (Job Skills)

Aside from agricultural variables, it is also important to note the characteristics unique to each respondent. In this model, controls are included for gender (Female=1), as well as the age of each person surveyed. Women are more risk-averse than men on average [Croson and Gneezy, 2008; Fellner and Maciejovsky, 2007]. This high aversion to risk makes it difficult for an individual to undertake new economic activities. Women often have a lower degree of market participation, and therefore may demand less job training services [Fellner and Maciejovsky, 2007]. It seems reasonable to hypothesize that women will have a negative coefficient signifying a lower probability of participating in job training than men. Education is also an important variable to consider when examining job training participation because the “creaming effect” indicates that better educated individuals may participate at higher levels due to better access to information and available resources [Heckman and Smith, 2004].

Although 90 percent of individuals claimed they wanted to participate in a job skills training workshop that year, **Table 3** shows that a significantly smaller amount participated in a job skills program the previous year. Only 33 percent of men and 47 percent of women had previously participated the year before. This illustrates significant differences between gender and income groups in terms of participation levels.

**Table 3.** Proportion of the population who participated in a job/skills training program the previous year by gender and income level

		Male (%)	Female (%)	Total (%)
HH Wealth	Below***	26	44	36
Compared to	Average***	34	48	42
Commune Avg.	Above	50	52	51
	Total***	33	47	41

Findings are significant at \*10%, \*\* 5%, \*\*\* 1%

$\chi^2 = 12.1$  (Below),  $\chi^2 = 14.5$  (Average),  $\chi^2 = 23.0$  (Total)

In terms of income and gender, below average income males were least likely to have participated in a job/skills training program the previous year than any other sub-population. In fact, low-income individuals had the lowest percentage of those participating in job training classes with only 36 percent of that population responding affirmatively compared to 42 percent of average income respondents. Notably, the population that potentially could receive the greatest benefit from participating in a job/skills training program was the least likely to have done so.

Age may also be an important indicator of the likelihood of prior participation in a job/skills training program the previous year. According to neoclassical economic theory, the young and lower income populations should be participating at the highest levels since they have the most to gain from a job-training program, investing in human capital.

This study also includes household characteristics. As a proxy for income level, a variable capturing whether an individual receives remittances of over 100,000 VND (Receives Remittances =1) was included, as well as a variable representing whether an individual has savings of over 200,000 VND (No Savings =1). A greater level of wealth will likely decrease the probability that an individual participated in the job training program the previous year, and possibly their likelihood of participating in a program in the future. Yet those who have less income and available resources should be willing to participate at higher levels due to a greater level of private marginal benefit of participation.

Prior research neglects important behavioral factors that may significantly impact a rural individual's probability of participating. While eligibility for a program is important, personal choice plays a larger role in determining participation [Heckman, 2003]. This study improves upon those models by including several new variables that capture behavioral factors that may influence participation.

An important behavioral factor is an individual's risk perception. A series of experiments were conducted to capture an individual's risk aversion. The experiments involved a coin toss. The coin toss experiment had two options. If an individual chose Option 1 he/she received a guaranteed amount of 10,000 VND. Or he/she could choose Option 2, which involved a coin toss - if heads an individual did not win anything, but if tails, the individual collected 20,000 VND. Those who chose Option were classified as risk averse (Risk Averse=1). This study hypothesizes that those individuals who are risk averse will have a lower probability of having participated the year before. Risk averse individuals, due to behavioral constraints, will have participated in lower numbers than non-risk averse individuals in the past year.

Food insecurity is also controlled for in the model since food insecure individuals tend to more risk averse than food secure individuals. This decreases their probability of participating. Food insecurity also has an independent effect, since those who are food insecure may not have the highest levels of productivity and could be the most in need of learning new farming techniques in order to increase yield levels. It is challenging to get food insecure individuals to adopt new farming techniques because it is a large risk for a food insecure individual to alter the methods of food production, since if it does not work he or she will be in a dangerous position.

A variable measuring the comfort people have with changes in their relative status compared to their peer group – either being better or worse off than their peers – is also included. The marginal degree of positionality variable measures how comfortable individuals are with changes to their relative position in society [Carlsson *et al.*, 2007]. Individuals with a lower degree of positionality are therefore more willing to participate, since being above or below their peers does not make them uncomfortable.

#### **IV. Data and Methods**

##### *Data*

Data are drawn from a survey conducted by researchers from the University of Washington and the Institute for Family and Gender Studies in Hanoi, Vietnam, in partnership with the International Fund for Agricultural Development (IFAD). The survey aimed to explore patterns in farmer attitudes among the intended recipients of IFAD's Program for Improving Market Participation of the Poor in Ha Tinh and Tra Vinh Provinces (IMPP). The IMPP program is designed to build infrastructure, invest in skills training, and offer financial services to diversify livelihood strategies for the rural poor. The survey was conducted in March 2008. Vietnamese enumerators were trained on how to properly administer the survey. The survey was conducted in both English and Vietnamese.

The analysis that follows is based on data collected from 1,165 individuals in 637 households from three communes in Ha Tinh province, Vietnam. Male and female heads of households were interviewed separately. The surveyed population was 44 percent male (n=513) and 54 percent female (n=652). The majority of respondents were from households where both the husband and wife reside (n=1060), which were coded as "couple

households.” The remaining observations were from single female-headed households. Of the single-headed households, 39 were widowed or divorced, and in 70 cases the husband had migrated for work. The annual household income averaged 23.7 million VND or 1,333 USD<sup>1</sup>.

Ha Tinh is a rural, agriculturally based province with relatively low population density. Ha Tinh province is located on the northern central coast of Vietnam. Commune leaders keep track of household wealth for tax and other purposes. Their assessments of relative wealth produces the following distribution: 31 percent, or 357, of individuals were classified below average, 58 percent, or 681 individuals, are classified as average, and 11 percent, or 127 individuals, were classified as above average income. Food insecurity is pervasive; over half of even the wealthiest village members report being unable to afford the healthy food they need for their families and more than 80 percent of those with below average wealth report this type of food insecurity.

To illustrate these points, this study contains several separate multivariate probit regression models examining determinants of an individual’s previous participation in a job training program in the previous year

$$\text{Probit (Participated the Previous Year= 1)} = \Phi (b(H_i, I_i, B_i, D))$$

Therefore,  $b$  is a linear function of the vectors of explanatory variables.  $H_i$  represents household characteristics,  $I_i$  for individual characteristics,  $B_i$  represents behavioral characteristics, and  $D$  stands in for commune dummies. Model 1 contains all of the control variables that are to be included in the model, but without any inclusion of risk or MDP. Model 2 contains a variable capturing an individual’s marginal degree of positionality. Finally, Model 3 introduces the influence that risk perceptions play in participation rates. Analysis was conducted with SPSS 16.0 software to recode and organize variables, and STATA 10 for regression analyses.

## V. Results and Discussion

### *Risk Averse and Marginal Degree of Positionality*

Individuals who are risk averse are significantly less likely to have participated the previous year in a job-training program (see **Table 4**). A risk averse individual is almost 10 percent less likely to have participated the previous year than a non-risk averse person. It is interesting to note, however, that an individual’s aversion to risk is not significant in determining willingness to participate in the future. According to **Table 5**, there is no significant difference between risk and non-risk averse individuals and their probability of being willing to participate in the future. This seems to indicate that risk averse individuals want to participate at the same rate as their non-risk averse counterparts. Nevertheless, they experience significant constraints that prevent them from participating in a job-training program. These findings indicate that some individuals are facing behavioral constraints.

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<sup>1</sup> Income was calculated using an exchange rate of \$1 USD equals 17,700 Vietnam Dong (VND), as of May 30, 2009.

**Table 5.** Proportion of risk and non-risk averse individuals who participated the previous year in a training program and also those who were willing to participate in the future

		Risk Averse	Non-Risk Averse
Participated Previous Year**	Yes	38	44
	No	62	56
Willing to Participate in Future	Yes	93	93
	No	7	7

Findings are significant at \*10%, \*\* 5%, \*\*\* 1%  
 $\chi^2 = 4.4$  (Participated Previous Year)

For this reason, it is important to consider individual risk perceptions when designing policy interventions. Many of the people that government and NGO programs target – women, food insecure, and the elderly – tend to be more risk averse than the general population and choose not to participate, even if they say they will. Evidence suggests a gap between individuals’ preferences of wanting to participate in these social programs and their actions.

Another important behavioral factor that should be taken into consideration when designing future training programs is the participants’ marginal degree of positionality (MDP). Experiments have shown that the higher an individual’s MDP, the less important it is for the individual to have an income higher than the average. The results indicate that an individual’s MDP is significant in determining whether they had participated in the previous year. Model 2 illustrates that for every increase in an individual’s MDP, there is a corresponding decrease of approximately 2.5 percent. Therefore, individuals with a higher MDP are significantly less likely to have participated in a training program the previous year. This may be because of a fear that training may alter the status level for an individual compared to the rest of the commune. The inclusion of risk and MDP in these participation models reveals the importance of incorporating individual perceptions into future program designs and evaluations

*Gender, Education, and Age*

Gender plays a key role in determining the likelihood of participation. Results indicate that being a woman makes you significantly more likely to have participated in the past year in a job-training program. In fact, evidence suggests that being a woman increases the probability of having participated by approximately 17 percent. But being female does not significantly impact the probability that one is willing to participate in a program. Descriptive statistics indicate that older, female individuals are those most likely to have participated in a program before, perhaps due to no longer having child raising responsibilities, and because of a subsequent increase in free time. Many job training programs also may be targeting women, therefore impacting participation rates.

Education is also a significant factor, but only slightly. Model 2 shows that the level of education achieved by an individual significantly impacts whether the respondent is willing to participate in future training program. Individuals with higher levels of education are more likely to have participated in the past year than those with lower levels of education. This suggests that a bias may exist in rural Vietnam where those with higher levels of education and ability self-select into training programs at higher rates. This indicates that a “creaming effect” may be taking place in rural Vietnam as well.

**Table 4.** Determinants of having participated the previous year in a job training program Probit (Participated Past Year= 1)

Dependent Variables	Model 1			Model 2			Model 3		
	df/dx	Std. Err. <sup>1</sup>	P> z	df/dx	Std. Err.	P> z	df/dx	Std. Err.	P> z
Risk Averse							-.096***	.034	0.005
Relative Status				-.025**	.011	0.019	-.026**	.011	0.017
<b>Controls</b>									
Age	-.019***	.003	0.000	-.019***	.003	0.000	-.019***	.003	0.000
Gender (Female=1)	.165***	.035	0.000	.167***	.035	0.000	.179***	.036	0.000
Education Level (Years)	.013*	.007	0.090	.013*	.007	0.086	.011	.007	0.140
Couple Household (Couple HH=1)	-.096	.063	0.125	-.095	.063	0.129	-.096	.063	0.127
Number of Kids Under 16	.022	.016	0.155	.022	.016	0.152	.022	.016	0.166
Catholic (Catholic=1)	-.099**	.045	0.031	-.094**	.063	0.041	-.090*	.045	0.052
Percent of Rice Consumed/Produced	-.013	.087	0.879	-.023	.088	0.796	-.012	.088	0.890
Changed Occupation in Past 3 Years	-.136*	.073	0.083	-.138*	.073	0.082	-.146*	.073	0.065
Tuong Son (Tuong Son=1)	-.003	.050	0.952	-.002	.050	0.962	-.007	.050	0.884
Thac Lac (Thac Lac =1)	.095*	.052	0.068	.096*	.052	0.066	.100*	.052	0.055
Party Member (Communist=1)	.317***	.060	0.000	.315***	.060	0.000	.322***	.060	0.000
Recall Ability (Out of 9)	.019**	.008	0.029	.018**	.009	0.031	.018**	.009	0.037
No Savings (No Savings =1)	-.049	.034	0.151	-.051	.034	0.139	-.049	.035	0.159
Remittances (Remittances=1)	.038	.040	0.337	.044	.040	0.272	.042	.040	0.292
Stable Income (No Change=1)	-.019	.035	0.590	-.021	.035	0.540	-.017	.035	0.621
Livestock as Percent of HH Prod.	.512***	.151	0.001	.522***	.152	0.001	.533***	.152	0.000
New Economic Activity	.100***	.034	0.004	.100***	.034	0.004	.099***	.035	0.005
Percentage of land used with red book value	-.009	.081	0.911	-.021	.081	0.793	-.009	.081	0.911
Log Likelihood	-597.393			-594.607			-590.575		
Pseudo R <sup>2</sup>	0.1225			0.1266			0.1325		
Number of observations	995			995			995		

Source: Stated Preferences Survey, Ha Tinh, Vietnam – March 2008 as described in main text

Notes: Findings are significant at \* 10%, \*\* 5%, and 1%, respectively.<sup>1</sup> Standard error terms may be correlated because two individual respondents may come from the same household and share basic household level data that only one individual gave.

Age is another significant determinant of prior participation. While age is significant, its magnitude of impact is not great. For every one-year increase in an individual's age, the probability that he or she participated last year decreases by 1.9 percent. This supports the conventional theory that younger individuals are more likely to be both willing to participate in the future and to have already participated the previous year, due to the high marginal benefits training could offer them in their young age.

### *Economic Activities*

The results of this study reveal other interesting findings regarding economic activities and their impact on participation rates. The ownership of livestock makes it significantly more likely an individual participated in a training the previous year. This is consistent with the descriptive statistics in **Table 2** which indicate that training involving livestock techniques is one of the most requested. Owning livestock, in fact, has the greatest marginal effect on whether an individual participated previously. An individual with livestock is over 50 percent more likely to have participated in the year prior than an individual with few or no livestock. While livestock is significant, agricultural land does not seem to be an important factor in determining participation last year. Another interesting finding is that if an individual stated that he or she was interested in starting a new economic activity in the coming year, the individual was ten percent more likely to have participated last year in a training program.

In addition, if an individual had stated that he or she had changed occupations in the past 3 years, his or her probability of having participated previously the year before decreases by approximately 14 percent. Most of the job training/skills workshops hosted programs relating to agriculture and livestock techniques, so an individual who moved out of the agricultural sector may have less use for these types of services.

Being a member of the Communist Party also is a significant determinant of having participated in the previous year. This finding is surprising, as it is unclear what relation being a party member has to increased participation levels. This result may be due to an increased level of social connections that party membership offers, or a greater access to information and education. Communist party membership makes an individual over 30 percent more likely to have participated the previous year.

### *Catholicism and Communes*

Those who identified themselves as Catholic were less likely to have participated in the previous year. Likewise, those from certain communes, such as Thac Lac, were significantly more likely to have participated last year. Historically, the Catholic population in Ha Tinh province lives near the coast, and primarily is made up of fisherman. Since the majority of programs dealt with livestock and agriculture techniques, and therefore could have been perceived as less useful for the coastal population. The Catholic population is also primarily located in two communes: Thac Lac and Tuong Son. The commune seems to be an important determinant of whether or not someone has chosen to participate, possibly due to the location or the quality of the land.

## VI. Conclusion

When examining participation rates, it is essential that governments, development organizations, and researchers explore the full range of constraints. This research indicates the importance of considering all forms of constraints, from economic to behavioral. Taking into account individual risk perceptions, as well as a person's marginal degree of positionality, is important for explaining participation levels. The results indicate that if an individual is risk averse, he or she is almost 10 percent less likely to have participated in the previous year. This is significant because the populations that could benefit the most from these types of social programs are those who often participate the least - such as women, the poor, and food insecure. These populations tend to be more averse to risk, and therefore, have lower participation rates.

The research also shows that it is important to take into consideration a person's response to a change in their marginal degree of positionality, or relative status. Some individuals may simply be uncomfortable with a change in their social position relative to others. The research indicates that those who are more uncomfortable with inequality are significantly less likely to have participated in the past year. These behavioral factors, in combination with the traditional economic variables, help explain more accurately the determinants of having participated in a job training program in the previous year.

There is a growing need to look beyond traditional economic variables when designing and evaluating projects, especially in the developing world. Many in the developing world frequently face risky outcomes and poorly functioning markets which may impact their behavior and whether they choose to avail themselves of opportunity. Further research in other Vietnamese provinces, both rural and urban, could either reinforce or challenge the findings in Ha Tinh province.

In conclusion, organizations designing or evaluating programs in the developing world should take into account all constraints being faced by individuals. Risk perceptions and individuals' feelings towards changes in their relative status are important, and may prove significant in determining the success or failure of a program. People may be willing to participate, but if they are unable to, due to behavioral and economic constraints, interventions should be redesigned taking all factors into consideration.

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