



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



## Willing, but Unable: Determinants of Participation Rates for Training Workshops in Central Vietnam

Ryan P. Gockel  
Seattle WA, USA

Alison C. Cullen  
Daniel J. Evans School of Public Affairs, University of Washington, Seattle WA, USA

### Abstract

This article examines the determinants affecting individuals' previous participation in training workshops in rural Vietnam. This is the first study to examine training program participation rates in a rural Asian context. According to a survey conducted in Ha Tinh Province, Vietnam in 2008, more than 90 per cent of individuals expressed an interest in participating in a job-training program, yet only 41 per cent participated the previous year. This disconnect presents a serious challenge to increasing job training participation rates. We find that gender, age, location, and also behavioral constraints such as an individual's risk attitude and willingness to compete are significant predictors of previous participation. Our results also indicate that those who could benefit most from job-training programs participate at lower rates. Governments and NGOs need to rethink development models taking these behavioural constraints into account. By designing interventions aimed at mitigating these constraints, participation rates for rural individuals will likely improve, offering a chance to improve livelihoods.

**Keywords:** Vietnam, job training programs, behavioural decision-making, risk, rural livelihoods

### Introduction

The economy and society of Vietnam are undergoing a structural transformation. In Vietnam, 70 per cent of the population lives in rural areas, yet the country is becoming more urban as its economy industrialises (World Bank, 2011).

According to the International Labour Organization (ILO), agricultural workers comprised 53 per cent of the Vietnamese work force in 2007, a decline from 65 per cent in 2000 (ILO, 2010). As Vietnam's economy continues to industrialise, investing in human capital will be a

key component in the development process (Thang and Quang, 2007). Governments and development organizations are increasingly interested in job training workshops as a tool to tackle unemployment and to better align job skills with labour market demands.

The Vietnamese Government has identified job training as a high priority for socioeconomic development and has set a goal of increasing the share of the workforce with skills training to 45 per cent by 2015 (ILO, 2010). As urban migration trends continue, Vietnam's rural poor face particularly limited employment opportunities since they tend to lack technical training.

Corresponding author's details:  
Name: Alison Cullen  
Email address: [Alison@uw.edu](mailto:Alison@uw.edu)

Therefore, increasing rural access to training workshops is a high priority for the Vietnamese Government. However, very little research exists

regarding rural workers' willingness to participate in training workshops, particularly in the developing world where many individuals face social, physical and economic constraints.

This makes understanding the determinants of training workshop participation in a rural context increasingly urgent (Betcherman *et al.*, 2000; Card *et al.*, 2011). This paper analyzes data from a large-scale survey conducted in Vietnam in March 2008.

The survey revealed that over 90 per cent of the sample population stated a desire to participate in a training program, reflecting a high level of interest in job training and skills workshops. In the previous year, several groups, including the People's Committee, the Farmer's Union and the Women's Union, had organised free one and two day training programs.

Given the population's stated interest in job training, it is surprising that, when asked if they had participated in a training program the previous year, only 41 percent of respondents answered affirmatively. This finding raises questions regarding the role that household, individual and behavioural characteristics play in the decision-making process (Anderson and Stamoulis, 2006).

The Vietnam case challenges our basic understanding of individual economic behaviour because of the disconnect between stated willingness and actual participation rates.

The purpose of this study was twofold: 1) to investigate the effects of traditional demographic variables on job training participation rates in a rural, agriculturally based setting, and 2) to examine several behavioral variables that have not been incorporated into previous job training participation models, namely an individuals' risk attitude and willingness to compete.

While the lack of participation may be due in part to economic constraints, preliminary analysis reveals the importance of behavioural constraints. To illustrate this point, we present probit regression models examining the determinants of

previous participation in training workshops, as well as the factors influencing willingness to participate in the future.

The paper is structured as follows. Section II provides a review of the literature on the role of training workshops and previous job training participation models. Section III describes the survey instrument and the data upon which our analysis is based. In Section IV, we describe the methods used to identify the determinants of participation. In Section V we present findings, identifying the determinants of individuals having participated in a training workshop the previous year and their stated willingness to participate in the future. Section VI concludes.

### **Active labour market policies and determinants of job training participation**

In the aftermath of the Great Depression and the Second World War, many member countries of the Organisation for Economic Cooperation and Development (OECD) promoted active labour market policies (ALMPs) as a means to tackle the issue of unemployment (Betcherman *et al.*, 2004). Previously, governments had addressed unemployment with "passive" labour policies, such as unemployment insurance.

These previous policies did not require or encourage unemployed workers to take retraining courses or other "active" measures.

The OECD defines five active labour market policies: public employment services and administration, labour market training, youth measures (i.e. apprenticeships), subsidised employment, and measures for the disabled (Martin, 2000). These new labour policies encouraged unemployed individuals to retrain and acquire new skills.

In the United States and many European countries, governments promoted job-training programs as excellent tools to tackle unemployment and poverty (Martin and Grubb, 2001). ALMPs serve as the foundation for current labour policies throughout the developed world and are now becoming more common in the developing world.

A major challenge in the developing world is poorly functioning labour markets. These market failures make it difficult for employers to obtain qualified employees who have the skills they seek and for workers to find employment or obtain the training they need to become more qualified applicants. A poorly functioning labour market makes it more challenging for workers to find employment or obtain the training they need to become more qualified applicants. In theory, ALMPs help to mitigate labour supply problems by investing in human capital via job-training programs.

Typical ALMPs are formal classroom training, on-the-job training, job search assistance, employment subsidies, and direct job creation by the government.

Previous research has evaluated the cost-effectiveness of these programs. Several evaluations have been conducted on program effectiveness through the lens of curbing unemployment for a given target population (for detailed evaluation results see Fay, 1996; Friedlander *et al.*, 1997; Denny *et al.*, 2000; Carling and Richardson, 2001, and Lalive *et al.*, 2011).

These studies show that program effectiveness can vary due to factors such as gender. For example, on-the-job training appears to help women re-enter the workforce, but it does not help men to the same degree (Martin and Grubb, 2001).

Still, many development programs specifically target women, thus understanding the relationship between risk aversion and gender is critical. Weber *et al.* (2002), Dohmen *et al.* (2005), Fellner and Maciejovsky (2007), Gneezy *et al.* (2008) and Croson and Gneezy (2009) find that women are more risk averse than men on average. Fletschner *et al.* (2010) finds that this gender gap in risk aversion persists regardless of how risk is framed.

This is an important consideration since risk averse individuals may avoid change as part of a regret avoidance strategy, while risk aversion can

also be argued to drive individuals to make changes, depending on context.

In order to improve program effectiveness, it is critical to understand the factors influencing training workshop participation. Over the past several decades, numerous studies have examined why individuals participate in training workshops. Many studies have examined the effects of socio-demographic variables such as age, gender and education levels on participation rates.

These studies have often found that older, less educated individuals participate at lower levels in non-mandatory training programs (Maurer *et al.*, 2003; Birdi *et al.*, 1997). Researchers have also examined the effect that individual behavioral characteristics, such as self-efficacy and willingness to learn, have on participation rates (Tharenou, 2001; Mathieu *et al.*, 1993; Noe and Wilk, 1993). While these studies have increased our knowledge of the determinants of job training participation, they are limited by context.

Self-selection bias is a perennial concern for those designing job training and other social programs. In other words, the individuals who choose to participate are often not necessarily those who could benefit most from participation.

Anderson *et al.* (1993) and Heckman and Smith (2004) found that self-selection bias impacted participation rates in programs affiliated with the Job Training Partnership Act (JTPA) in the United States. While eligibility for a program is important, personal choice plays a larger role in determining participation. We hypothesize that self-selection bias also may be an issue in Ha Tinh, Vietnam, the site of our research.

Studies examining determinants of job training participation have taken place almost solely in developed countries like the United States (Heckman and Smith, 1999, 2004; Heckman *et al.*, 1999; Jacobsen *et al.*, 2005), Canada (Renaud *et al.*, 2004), Europe (Arulampalam *et al.*, 2003), Australia (Tharenou, 2001) and Singapore (Thangavelu *et al.*, 2011).

Thus, it has proven difficult to effectively target training programs in the rural developing world to ensure that those who could benefit most (i.e. low-income, disabled, migrants) are availing themselves of the opportunity (Bennell, 1999; Bergemann *et al.*, 2011).

## Data

The data for our analysis 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 attitudes among farmers, the intended recipients of IFAD's Program for Improving Market Participation of the Poor (IMPP) in Ha Tinh and Tra Vinh Provinces.

The IMPP program is designed to build infrastructure, invest in skills training, and offer financial services to encourage diversification of livelihood strategies for the rural poor. The survey was conducted in March 2008. Vietnamese enumerators were trained to properly administer the survey in the Vietnamese language.

A total of 1,165 individuals were surveyed in 637 randomly selected households from three communes in Ha Tinh province. Ha Tinh is a rural, agriculturally based province with relatively low population density, located on the northern, central coast of Vietnam. The surveyed population is representative of Ha Tinh Province specifically and rural Vietnam in general.

The survey covered various topics relating to land, occupation, and household composition. Revealed preference experiments were included to ascertain risk attitudes, willingness to compete, as well as individuals' self-efficacy.

The majority of respondents were from dual headed households where both the husband and wife resided. Male and female heads of households were interviewed separately. The remaining observations were from single female-headed households, which accounted for less than 10 per cent of the sample (see **Appendix 1**). The

sample population was 43 per cent male (n=479) and 57 per cent female (n=642). The annual household income average was 23.7 million VND or 1,124 USD<sup>1</sup>.

## Model design for training workshop participation

This study seeks to identify the determinants of individual participation in the previous years' training workshops, as well as the determinants of individuals' stated willingness to participate in future training programs. We identify factors that affect rural individuals' participation and interest in training workshops, and highlight constraints individuals face, through probit models.

In order to gain a better understanding of the preferences and constraints of individuals surveyed, we asked a series of questions about individual willingness to participate in a future program as well as whether individuals had participated in the program the previous year.

The survey read, 'This year there will be training courses in the commune. Would you want to participate in those trainings?' Enumerators recorded responses as either affirmative or negative. Of the 1,165 people surveyed, 93 per cent (N= 1082) said they wanted to participate, while 7 per cent (N=83) said they did not. 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.

The survey also contained a question regarding 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, 59 per cent responded that they had not participated (N= 686). While over 90 per cent of individuals stated that they were willing to participate, only 41 per cent had in fact participated in the previous year.

---

<sup>1</sup> Income was calculated using an exchange rate of \$1 USD equals 21,080 Vietnam Dong (VND), as of August 15, 2013.

We hypothesize that behavioural characteristics such as risk attitude, willingness to compete, and self-efficacy are significant predictors of previous participation in a training workshop and will similarly affect an individual's stated willingness to participate in the future. Controls included household size, level of food insecurity, and whether a couple lived together within the household. Controls for individuals included age, gender, education level, Communist Party affiliation, religion, and occupation.

Probit regression models were used to capture household, individual, behavioural, and commune characteristics affecting previous and stated willingness for future participation in a training workshop.

Model 1: Pr (Participated in the Previous Year = 1) =  $\Phi(h(H_j, I_j, B_j, C_j))$

Model 2: Pr (Willingness to Participate in Upcoming Year = 1) =  $\Phi(h(H_j, I_j, B_j, C_j))$

In these models,  $h$  is a function of the explanatory variables for individual  $j$ .  $H_j$  represents household characteristics;  $I_j$  represents individual characteristics;  $B_j$  represents behavioural characteristics, and  $C_j$  represents commune dummy variables (Barslund and Tarp, 2008). Model 1a contains only the control variables. Model 1b adds variable capturing risk attitudes. Model 1c replaces that variable with one representing a willingness to compete. Model 1d incorporates individuals' self-efficacy. Self-efficacy determination was based on individuals' stated confidence in their ability to make good decisions. Finally, Model 1e includes risk attitudes, willingness to compete, and self-efficacy.

Model 2 repeats the above experiment, but uses individuals' willingness to participate in the upcoming year as the dependent variable. These models were designed identically in order to compare each independent variable's effect on the dependent variables. Analysis was conducted with SPSS 16.0 software to recode variables and STATA 10 for regression analyses.

### Behavioural characteristics

Risk perception is an important behavioural factor related to decision-making. We define risk as a two dimensional construct comprised of the probability of a loss or gain occurring, and the outcome itself. A risk adverse individual may be less likely to be retrained in a new profession or to adopt new agricultural techniques than a risk seeking individual (Dercon, 2006).

On the other hand, aversion to risk might also lead an individual to participate in a risk mitigation strategy such as attending a training workshop.

In order to classify individuals as risk averse or risk seeking, the survey posed coin toss questions designed to reveal individuals' risk attitudes. The coin toss experiments had two options.

If an individual chose Option 1 he/she received a guaranteed payoff of 10,000 VND. Alternatively he/she could choose Option 2, which involved a coin toss—heads, an individual did not win anything, but if tails, the individual collected 20,000 VND.

Those who chose Option 1 were classified as risk averse. Our hypothesis is that risk averse individuals are less likely than risk seekers to have participated in a training workshop in the previous year. An experiment was also conducted to explore an individual's willingness to compete. The experimental design was based on work done by Gupta *et al.*, (2005), Niederle and Vesterlund (2007), and Gneezy *et al.* (2003). Participants were asked to memorise a series of numbers and then repeat them to the enumerator.

The individuals had two options for this game. If the participants chose Option A they received 1,000 VND for every correct sequence. However, if the participants chose Option B their scores were compared to 5 people from another village who had played earlier (the group was 3 men and 3 women, including the targeted participant).

If the targeted participant's score was higher than 4 other participants they would receive 3,000 VND for each correct response, but if it was

lower they received nothing. Individuals who chose Option B were classified as having a greater willingness to compete. We posit that this willingness to compete is an important factor influencing whether an individual chooses to take advantage of a market orienting opportunity, such as a training workshop.

### **Household and individual characteristics**

In Models 1 and 2, controls included gender and age. Aversion to risk makes it especially difficult for women to undertake new economic activity. We hypothesise that women have a lower likelihood of having participated in a training workshop in the previous year than men, and are also less willing than men to participate in the future. Age is another important indicator of the likelihood that an individual participated in a training workshop the previous year as well as the willingness of an individual to participate in the future.

According to human capital theory, individuals of a younger age and lower income are expected to participate at a higher rate (Becker, 1962). Theoretically, due to their age, younger individuals have the most to gain from a training workshop, as it represents an investment in human capital.

The models also control for individuals' level of food insecurity. Food insecurity is expected to decrease the probability of participating in the future, and of having participated previously.

Food insecurity also has an independent effect, since the food insecure may not have high levels of productivity and could be most in need of new agricultural techniques to improve crop yields. Adoption of new farming methods is a large risk and thus may present a significant constraint for food insecure individuals.

If the new technique does not lead to yields greater than or equal to the previous technique, then an individual will be left in a precarious position. Further, 80 per cent of individuals identified themselves as farmers.

Survey data reveal that the most demanded training workshops focused on planting techniques, aquaculture, and raising livestock. **Table 1** shows the percentage of men and women interested in different types of training programs.

These data reinforce the importance of agriculture and livestock in Ha Tinh province. The data also indicate that a significant percentage of the female population was interested in learning planting and livestock techniques.

Lastly, the models control for self-selection bias by including variables for individuals' years of education, as well as recall ability. Respondents were asked to repeat a series of numbers and their accuracy was recorded.

The recall variable represents how many correct answers a respondent gave out of 9 attempts. This variable is included in the model as a control since we expect that individuals with a higher recall ability to be more likely to have participated and willing to participate in a training workshop due to their higher cognitive abilities (Djankov *et al.*, 2005). Education is also an important variable when examining training workshop participation because self-selection bias suggests that better educated individuals may participate at higher levels due to better access to information and available resources (Heckman and Smith, 2004).

## **Results**

### **Risk attitudes, willingness to compete, and self-efficacy**

Behavioural variables were found to have predictive power regarding participation in job-training programs; however there were differences in how these variables were associated with stated willingness to participate versus actual participation.

These findings suggest that some individuals may have been facing behavioural constraints in addition to traditional ones. Risk averse individuals were 10 percent less likely to have participated the previous year in a job-training program, than were their risk seeking counterparts

(see **Table 2**). It is interesting to note however that individual's risk attitudes were not statistically significant in predicting a stated willingness to participate in the future (see **Table 3**). Also, individuals who exhibited a willingness to compete in the context of this study were almost 12 per cent more likely to have participated in a training workshop the previous year than individuals who were unwilling to compete; however willingness to compete was not a significant predictor of stated willingness to participate in the future.

Finally, an individual's self-efficacy was a significant predictor of both participation in a training workshop in the previous year, and also stated willingness to participate in the future. Higher self-efficacy was associated with a 7.6 per cent higher likelihood of having participated in the previous year, and a 3 per cent higher likelihood of stating a willingness to participate in the upcoming year.

Our findings suggest that current program designs are likely helping individuals who are already more competitive and confident than their counterparts (likely those who are less in need of assistance are availing themselves of the opportunity at a higher rate). Also, risk aversion appears to be a statistically significant behavioural constraint affecting previous participation rates.

### **Gender, education, and age**

Gender played a key role in determining the likelihood of participation in a training workshop. Our results indicate that women were significantly more likely to have participated in training workshops in the previous year.

In fact, when controlling for risk attitudes and willingness to compete, evidence suggests that being a woman increased the probability of having participated by approximately 16 per cent. But being female did not significantly affect the probability that a respondent expressed willingness to participate in a program in the upcoming year. Descriptive statistics indicate that older, female individuals were most likely to have participated in a program last year.

This may be due to the absence of child rearing responsibilities, and the corresponding increment of free time. Also, some training workshop programs targeted women, which also might explain the higher rate of participation.

Education was a significant positive predictor of stated willingness to participate in a future training program; however it was not predictive of actually having participated in the previous year. Every year of education attained was associated with an increase of 1.2 per cent in stated willingness to participate in the future.

Age was another significant predictor of prior participation. Every additional year of age was associated with a 1.9 per cent decrease in the likelihood that he or she participated during the previous year. However, age was not a significant predictor of willingness to participate in a training workshop in the upcoming year.

### **Economic activities and social ties**

Fluidity of occupation proved to be associated with the probability of having participated in a training workshop in the previous year.

An individual who reported changing occupations in the past three years was 20 per cent less likely to have participated. Since many training workshops were directed toward improved agriculture and livestock techniques, it is expected that individuals moving out of the agricultural sector would have less use for the training workshops offered.

Not surprisingly, Communist Party affiliation was also a significant predictor of having participated in a previous year. Party membership was associated with a 28 per cent higher probability of having participated.

There is strong social pressure to participate suggesting a potential bias towards supporting and enrolling existing party members over non-members. As mentioned earlier, anecdotal evidence suggested that Communist Party chapters organised and hosted many of the workshops. This result also may be attributed to the increased number of social connections that



party membership offers, which may provide greater access to information and education.

Religious affiliation and current occupation were associated with job training program participation – consistent with our hypothesis that geographic distribution of these characteristics in the population would be predictive. Those who self-identified as Catholic were 14 per cent less likely to have participated in a training workshop the previous year than non-Catholics. We note that the Catholic community is a sizeable minority in the sample, comprising almost 25 per cent. Further, the Catholics in Ha Tinh province historically lived in communes near the coast, and were primarily fisherman.

Location of the training workshops appears key to participation levels. Unwillingness or inability to travel long distances was hypothesised to prevent individuals from participating.

And indeed our results indicate that the distance to a training workshop was an important determining factor for many individuals. Cost and investment of time were not hypothesised to influence participation in Ha Tinh province since most training workshops lasted no more than two days and were provided free of charge.

## Conclusion

International organizations such as the United Nations Development Programme (UNDP) and the ILO advocate job training as a basic human right (ILO, 2008). In addition, many developing countries have experienced substantial unrest due to the adverse effects of globalization that strike the poor of the developing world hardest.

Our findings highlight the importance of considering behavioural variables and risk attitudes when designing policy interventions. Many of the people that government and NGO programs target – the food insecure, the less educated, the elderly – tend to be more risk averse than the general population.

And indeed we find that they report comparatively low rates of participation in past

programs, even if they state that they plan to participate in the future. There is a growing need to look beyond traditional economic variables when designing and evaluating programs to serve those in the developing world. Frequently, these populations face poorly functioning markets and higher levels of livelihood risk.

This may affect how they approach decisions generally, and whether they choose to avail themselves of a market orienting opportunity, such as a training workshop. Evidence suggests a gap between desire or stated willingness to participate in these social programs and demonstrated action. Our findings reveal the role of behavioral factors such as willingness to compete and self-efficacy vis a vis this gap.

This research underscores the importance of considering all forms of constraints, from economic to behavioural. Governments and organizations can mitigate some of these constraints by establishing a safety net to protect participants from potential unexpected adverse effects which may occur by chance. This could be in the form of crop insurance or a guaranteed employment opportunity upon training completion.

Local context is also critical to a program's success. The location of the workshops, for example, is a significant predictor of participation with residents from certain communes and communities (e.g. Catholics and Communist Party members) more or less willing to participate.

Historical, political, and religious ties significantly affect the likelihood that an individual participated in a training program. These associations should be taken into account when designing new programs in order to promote participation of those with weaker social ties.

In conclusion, many rural individuals face considerable constraints, both practical and personal, that prevent them from availing themselves of market orienting opportunities such as training workshops. While the vast majority of

individuals state that they are willing to participate, ultimately, fewer than half actually do. Our results suggest that organisations designing or evaluating programs in the developing world need to take into account the full range of constraints and characteristics relevant to these populations, such as orientation toward risk and competition, so that they might mitigate these behavioural constraints.

### Acknowledgements

The authors would like to thank Professor C. Leigh Anderson, Principal Investigator and Professor Andrew Gordon of the Daniel J. Evans School of Public Affairs, University of Washington, Seattle USA, Dr. Diana Fletschner of Landesa Rural Development Institute, Seattle USA, and Dr. Minh Nguyen from the Institute for Family and Gender Studies in Hanoi Vietnam, for their work designing the survey and collecting the data upon which this research is based.

### References

- Anderson, C. L. and Stamoulis, K. (2006). Applying Behavioral Economics to International Development Policy. World Institute for Development Economics Research. Research Paper No. 2006.
- Anderson, K. H., Burkhauser, R. V. and Raymond, J. E. (1993). The Effect of Creaming on Placement Rates Under the Job Training Partnership Act. *Industrial and Labor Relations Review* 46(4): 613-624.
- Arulampalam, W., Booth, A. L. and Bryan, M. L. (2003). Training in Europe. IZA Discussion paper series, No. 933.
- Barslund, M. and Tarp, F. (2008). Formal and Informal Rural Credit in Four Provinces of Vietnam. *Journal of Development Studies* 44(4): 485-503.
- Becker, G. (1962). Investment in Human Capital: A Theoretical Analysis. *Journal of Political Economy*, 70: 9-49.
- Bennell, P. (1999). Learning to change: Skills development among the economically vulnerable and socially excluded in developing countries. International Labor Organization, Employment and Training Papers No.43.
- Bergemann, A., Caliendo, M., Van den burg, G. J. and Zimmerman, K. F. (2011). The threat effect of participation in active labor market programs on job search behavior of migrants in Germany. Institute for Labor Market Policy Evaluation Working Paper No. 4.
- Betcherman, G., Dar, A., Luinstra, A. and Ogawa, M. (2000). Active Labor Market Programs: Policy Issues for East Asia. Social Protection Discussion Paper Series, World Bank No. 5.
- Betcherman, G., Olivas, K. and Dar, Amit. (2004). Impact of Active Labor Market Programs: New Evidence from Evaluations with Particular Attention to Developing and Transition Countries. Social Protection Discussion Paper, World Bank No. 402.
- Birdi, K., Allan, C. and WARR, P. (1997). Correlates and Perceived Outcomes of 4 Types of Employees Development Activity. *Journal of Applied Psychology* 82: 845-857.
- Card, D., Ibarraán, P. and Miguel, J. (2011). Building in an evaluation component for active labor market policies: A practitioner's guide. Discussion Paper series, No. 6085, <http://hdl.handle.net/10419/58652> (accessed 15 December 2012).
- Carling, K. and Richardson, K. (2001). The relative efficiency of labor market programs: Swedish experience from the 1990's. IFAU Working Paper 2001, No. 2, Uppsala.
- Croson, R. and Gneezy, U. (2009). Gender Differences in Preferences. *Journal of Economic Literature* 47(2): 1-27.
- Denny, K., Harmon, C. and O'Connell, P. J. (2000). Investing in people: The labour impact of human resource interventions funded under the 1994-1998 community support framework in Ireland. ESRI Policy Research Series 38.
- Dercon, S. (2006). Risk, Growth, and Poverty: What do we know? What do we need to know? QEH Working Paper Series.
- Djankov, S., Roland, G., Edward, M., Zhuravskaya, E. and Qian, Y. (2005). Who

- are Russia's Entrepreneurs? *Journal of the European Economic Association*, 3(2): 587-597.
- Dohmen, T., Falk, A., Huffman, D., Sunde, U., Schupp, J. and Wagner, G. G. (2005). Individual Risk Attitudes: New Evidence from a Large, Representative, Experimentally-Validated Survey. IZA Discussion Paper No. 1730.
- Fay, R. (1996). Enhancing the Effectiveness of Active Labour Market Policies: Evidence From Program Evaluations in OECD Countries. OECD Labor Market and Social Policy Occasional Paper No. 18.
- Fellner, G. and Maciejovsky, B. (2007). Risk attitude and market behavior: Evidence from experimental asset markets. *Journal of Economic Psychology* 28(3): 338-350.
- Fletschner, D., Anderson, C. L. and Cullen, A. (2010). Are Women as Likely to Take Risks and Compete? Behavioral Findings from Central Vietnam. *Journal of Development Studies* 46(8): 1459-1479.
- Friedlander, D., Greenberg, D. and Robins, P. (1997). Evaluating Government Training Programs for the Economically Disadvantaged. *Journal of Economic Literature*, 35(4): 1809-1855.
- Gneezy, U., K. Leonard and J. List (2008). Gender Differences in Competition: Evidence from a Matrilineal and a Patriarchal Society. NBER Working Paper No. 13727.
- Gneezy, U., M. Niederle and A. Rustichini. (2003). Performance in Competitive Environments: Gender Differences. *Quarterly Journal of Economics*, 118(3): 1049-1074.
- Gupta, N. D., A. Poulsen and M. C. Villeval. (2005). Male and Female Competitive Behavior: Experimental Evidence. Grouped' Analyseet de Theorie Economique Working Paper No. 0512.
- Heckman, J. J., La Londe, R. and Smith, J. A. (1999). The Economics and Econometrics of Active Labor Market Programs. Ashenfelter & D. Card (ed.), *Handbook of Labor Economics* Edition 1, 3(31): 1865-2097.
- Heckman, J.J. and Smith, J. A. (1999). The Programme Earnings Dip and the Determinants of Participation in a Social Programme: Implications for Simple Programme Evaluation Strategies. *The Economic Journal*, 109: 313-348.
- Heckman, J. J. and Smith, J. A. (2004). The Determinants of Participation in a Social Program: Evidence from a Prototypical Job Training Program. *Journal of Labor Economics*, 22: 243-298.
- International Labour Organization. (2008). Implementation of the Global Employment Agenda: Presentation Vietnam. International Labor Organization. 301<sup>st</sup> Session of ILO Governing Body, 21 February 2008, Geneva.
- International Labour Organization (2010). Labour and Social Trends in Viet Nam 2009/10.
- Jacobsen, L., La Londe, R. and Sullivan, D. G. (2005). Estimating the returns to community college schooling for displaced workers. *Journal of Econometrics*, 125: 271-304.
- Kluve, J., Lehmann, H. and Schmidt, C. M. (2008). Disentangling Treatment Effects of Active Labor Market Policies: The Role of Labor Force Status Sequences. *Labour Economics*, 15: 1270-1295.
- Lalive, R., Morlock, M. and Zweimüller, J. (2011). Applying for jobs: Does ALMP participation help? Working Paper Series, No. 19, University of Zurich.
- Mathieu, J. E., Martineau, J. W. And Tannenbaum, S. I. (1993). Individual and situational influences on the development of self-efficacy: Implications for training effectiveness. *Personnel Psychology*, 46: 125-147.
- Martin, J. P. (2000). What works among active labor market policies: Evidence from OECD Countries' experiences. *OECD Economic Studies* No. 30.
- Martin, J. P. and Grubb, D. (2001). What works and for whom: a review of OECD countries' experiences with active labour market policies. *OECD Working Paper* No. 14.
- Maurer, T. J., Weiss, E. M. and Barbeite, F. G. (2003). A model of involvement in work

- related learning and development activity: The effects of individual, situational, motivational and age variables. *Journal of Applied Psychology*, 88(4): 707-724.
- Niederle, M. and L. Vesterlund (2007). Do Women Shy Away from Competition? Do Men Compete Too Much? *Quarterly Journal of Economics*, 122(3): 1067-1101.
- Noe, R. A. and Wilk, S. L. (1993). Investigation of the Factors that Influence Employees' Participation in Development Activities. *Journal of Applied Psychology*, 78(2): 291-302.
- Renaud, S., Lakhdari, M. and Morin, L. (2004). The Determinants of Participation in Non Mandatory Training. *Industrial Relations*, 59(4): 724-743.
- Thang, N. N. and Quang, T. (2007). International Briefing 18: Training and Development in Vietnam. *International Journal of Training and Development*, 11(2): 139-149.
- Thangavelu, S. M., Haoming, L., Cheolsung, P., Heng, A. B. and Wong, J. (2011). The determinants of training participation in Singapore. *Applied Economics*, 43: 4641-4649.
- Tharenou, P. (2001). The relationship of training motivation to participation in training and development. *Journal of Occupational and Organizational Psychology*, 74: 599-621.
- Weber, E. U., Blais, A. and Betz, N. E. (2002). A Domain-specific Risk Attitude Scale: Measuring Risk Perceptions and Risk Behaviors. *Journal of Behavioral Decision Making*, 15: 263-290.
- World Bank (2011). Vietnam Urbanization Review: Technical Assistance Report.

**Appendix A: Descriptive Statistics of Sampled Population (n=1121)**

Descriptive	Total Number	Percentage (%)
Men	479	43
Women	642	57
Youth (17-30)	141	13
Middle (31-45)	750	67
Older (45-65)	229	20
Risk Averse	575	51
Food Insecure	779	70
Willing to Compete	477	43
Couple Household	1017	91
Farmer	900	80
Changed Occupation Past 3 Years	55	5
Catholic	276	25
Communist Party Member	78	7
Tuong Son Commune	413	37
Thac Lac Commune	347	31
Thac Viet Commune	361	32

**Table 1: Demand for skills training**

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

**Table 2: Determinants of having participated the previous year in a job training/skills workshop Probit (Participated Past Year = 1)**

Dependent Variables	Model 1a		Model 1b		Model 1c		Model 1d		Model 1e	
	df/dx	Std. Err.	df/dx	Std. Err.	df/dx	Std. Err.	df/dx	Std. Err.	df/dx	Std. Err.
Risk Averse			-.120***	0.032					-.099***	0.033
Willing to Compete					.136***	0.033			.117***	0.034
Self-Efficacy							.084***	0.032	.076**	0.033
<b>Controls</b>										
Age	-.018***	0.002	-.018***	0.002	-.018***	0.002	-.018***	0.002	-.018***	0.002
Gender (Female=1)	.133***	0.033	.143***	0.033	.146***	0.033	0.143***	0.033	0.162***	0.034
Education Level (Years)	0.009	0.008	0.009	0.008	0.007	0.008	0.008	0.008	0.007	0.008
Couple Household (Couple HH=1)	-0.006	0.058	-0.005	0.058	-0.004	0.058	-0.015	0.058	-0.011	0.058
Total Household Size	0.009	0.013	0.009	0.013	0.012	0.013	0.009	0.013	0.012	0.013
Food Security (Insecure=1)	-0.051	0.035	-0.044	0.035	-0.044	0.036	-0.051	0.035	-0.039	0.036
Catholic (Catholic=1)	-.144***	0.045	-.134***	0.046	-.157***	0.045	-.143***	0.046	-.146***	0.046
Changed Occupation in Past 3 Years	-.176**	0.073	-.185**	0.073	-.179**	0.073	-.189**	0.071	-.196**	0.071
Tuong Son (Tuong Son=1)	.314***	0.039	.340***	0.039	.323***	0.039	.326***	0.039	.353***	0.039
Thac Lac (Thac Lac =1)	.201***	0.043	.223***	0.044	.210***	0.044	.221***	0.044	.244***	0.045
Party Member (Communist=1)	.278***	0.062	.285***	0.062	.271***	0.063	.284***	0.062	.285***	0.063
Recall Ability (Out of 9)	.016**	0.008	.015*	0.008	0.012	0.008	.016**	0.008	0.012	0.008
Farmer (Farmer =1)	0.047	0.046	0.054	0.046	0.067	0.046	0.048	0.046	0.076	0.046
Log Likelihood	-654.175		-647.26		-645.603		-650.826		-638.188	
Pseudo R <sup>2</sup>	0.14		0.1495		0.1516		0.1448		0.1614	
Number of observations	1121		1121		1121		1121		1121	

**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.

**Table 3: Determinants of willingness to participate in a job training/skills workshop in upcoming year Probit (Willing to Participate= 1**

Dependent Variables	Model 2a		Model 2b		Model 2c		Model 2d		Model 2e	
	df/dx	Std. Err.[1]	df/dx	Std. Err.	df/dx	Std. Err.	df/dx	Std. Err.	df/dx	Std. Err.
Risk Averse			-0.002	0.014					0.002	0.014
Willing to Compete					0.013	0.015			0.011	0.015
Self-Efficacy							.033**	0.014	.033**	0.014
<b>Controls</b>										
Age	0	0.001	0	0.001	0	0.001	0	0.001	0	0.001
Gender (Female = 1)	0.017	0.016	0.017	0.016	0.019	0.016	0.017	0.016	0.022	0.016
Education Level (Years)	.012***	0.003	.012***	0.003	.012***	0.003	.012***	0.003	.012***	0.003
Couple Household (Couple HH = 1)	-0.018	0.028	-0.018	0.028	-0.017	0.028	-0.018	0.028	-0.017	0.027
Total Household Size	-.010*	0.006	-.010*	0.006	-.010*	0.006	-.010*	0.006	-.011*	0.005
Food Security (Insecure = 1)	0.015	0.016	0.015	0.016	0.016	0.016	0.015	0.016	0.017	0.016
Catholic (Catholic=1)	0.027	0.018	0.027	0.018	0.026	0.019	0.027	0.018	0.025	0.018
Changed Occupation in Past 3 Years	0.02	0.026	0.02	0.026	0.02	0.026	0.02	0.026	0.016	0.027
Tuong Son (Tuong Son = 1)	.032*	0.017	.032*	0.017	.032*	0.017	.032*	0.017	.036**	0.017
Thac Lac (Thac Lac =1)	0.009	0.019	0.009	0.019	0.009	0.029	0.009	0.019	0.016	0.018
Party Member (Communist = 1)	0.009	0.028	0.009	0.028	0.008	0.029	0.009	0.028	0.008	0.028
Recall Ability (Out of 9)	0	0.004	0	0.004	0	0.004	0	0.004	0	0.003
Farmer (Farmer = 1)	.065***	0.027	.065***	0.027	.067***	0.028	.065***	0.027	.065***	0.028
Log Likelihood	-269.736		-269.724		-269.373		-267.004		-266.704	
Pseudo R <sup>2</sup>	0.0643		0.0643		0.0656		0.0738		0.0748	
Number of observations	1121		1121		1121		1121		1121	

**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.