DOES TRAINING VOUCHER HELP INCREASE INCOME OF REDUNDANT WORKERS OF RESTRUCTURED STATE – OWNED ENTERPRISES IN VIETNAM?

RESEARCH PROPOSAL

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Abstract

Vietnam has conducted the State owned enterprise reform process since 1992. As of June 2007, 5,203 State-owned enterprises have been restructured, inclusive of 3,680 equitized. Under this program, a number of workers became redundant. To help these people, the Government of Vietnam has introduced a number of schemes, ranging from social insurance premium support, early-retirement compensation and training vouchers. As of the end of 2006, a total sum of VND 6,376 billion was disbursed to nearly 200,000 redundant workers. Out of Government programs, it seems that training voucher is directly improving the human capital by helping them get new jobs or start new businesses creating long-term possible earnings for people. However there may be other factors influencing the increased earnings of this group. Therefore this study will attempt to conduct a randomized experiment to identify the real impact of training voucher on the employability rate and monthly income of redundant workers of restructured enterprises in Vietnam. Also other factors that may influence the income of redundancies will be identified. Half of the sampled individuals will receive free vocational training. The study team will use data from the baseline and follow-up surveys to assess the proposed impacts. Findings from the experiment will then be used for policy recommendations on the vocational training voucher scheme.
A. Aims

a. Study overview

Vietnam has conducted the state-owned enterprise (SOE) reform process since 1992. Accordingly SOEs have been restructured to improve their performance efficiency. Under this scheme financial and labor problems of the enterprises should be settled before the enterprises are partly or entirely sold to non-State owners. Consequently a number of workers have become redundant. Before 2002 redundant workers may get nothing or small compensation amounts when their companies had to conduct the restructuring process. This led to the delay in the SOE restructuring process for quite a long time, since it did not provide sufficient support for redundant workers. Realizing this problem, in 2002 the Government issued Decree 41/2002/ND-CP on redundancy settlement in restructured SOEs. Accordingly redundant workers may receive various kinds of support from the national Redundancy Fund depending on their seniority with the enterprises. For example they may get social insurance premium support for the unpaid social insurance period so as to get full pension payment. Or they may get a full compensation amount and leave the company. Or they may get training vouchers to upgrade current skills or learn new skills to look for another job. As of the end of 2006, the Government has paid VND 6,376 billion for nearly 200,000 redundant workers\(^1\). It is planned that the Government will continue this scheme until the remaining 1,500 SOEs complete their reform process.

This scheme is very essential for redundant workers who may become marginalized due to their company reform. Regardless of those who are too old to look for new jobs and want to get lump-sum compensation, a number of redundancies need additional skills to enhance their job-seeking opportunities, especially in the increasing competitive labour market in Vietnam. Therefore it is deemed necessary to boost the training voucher policy, especially when the number of SOEs to be restructured remains high.

Although the program has been done for quite a long time, there have not been any quantitative studies on the actual impact of this program over the increase in income of redundancies. With another 1,500 SOEs to be restructured, the Government may have to pay another big amount for redundancies to complete the SOE reform process. Hence it is necessary to assess the impact of this program, especially the training voucher one, to answer

\(^1\) Report by the National Steering Committee for Enterprise Reform and Development, August 2007
the question whether it is necessary to continue it and, if yes, which policy adjustments should be made to enhance its efficiency.

b. Main research questions and core research objectives

Research questions:

1. Does training voucher scheme help redundancies of restructured SOEs in Vietnam improve their employability?
2. To what extent does training voucher scheme have impacts over the monthly income of redundancies of restructured SOEs in Vietnam?
3. What are policy implications on the training voucher scheme?

The core research objectives are to conduct a randomized experiment of training voucher scheme for redundancies of restructured SOEs to:

1. Assess the impact of the training voucher scheme over the employability of redundancies of restructured SOEs
2. Assess the impact of the training voucher scheme over income of redundancies of restructured SOEs.
3. Make policy recommendations.

B. Background and policy relevance

a. Literature review directly relevant to main research question

Job training programs are quite common in developed countries like the USA and Europe. In the USA, credible randomized evaluations can be found in such programs as the Job Partnership Training Act (Bloom et al, 1997; GAO, 1996; Heckman et al, 1999), the Job Corps (Burghart and Schochet, 2001) and a series of program for welfare recipients (Friedlander et al, 1997). Such studies produce quite different results. In terms of the Job Partnership Training Act, the short-run impacts for young disadvantaged women are essentially zero (although the long-run impacts appears to be more positive (GAO, 1996)), while the short-run impacts for young disadvantaged men are negative. In contrast the Job Corps had a significant positive impact on both genders. Lee (2005) proves that Job Corp had about a 12 percent effect on earnings three years after training. Regarding studies on European cases, results also vary partly because of the lack of experimental studies and the differences in evaluation methods (Heckman et al, 1999). However, Kluve et al (2005) review such studies and conclude that training voucher programs targeting the youth are substantially less likely to show positive impacts than programs for adults.
Meanwhile many non-experimental evaluations find that training voucher programs help increase post-program employment rate rather than increase wage rate. Such programs raise employment rate because, after finishing the training program, trainees find job faster when unemployed and hold their job longer when employed (Ham and Lalonde, 1991). To conduct a quantitative analysis, Ham and Lalonde conduct a survey of 275 trainees and 266 controls to evaluate the impacts of the training on the duration of employment and unemployment, and they show that the training raised the employment rate which supports the above contention.

Bartel (1995) explains the role of the on-the-job training on the wage growth by using the dataset collected from the personnel records of a large manufacturing company to study the relationships between on-the-job training, wages and job performance. Utilizing a company dataset avoids the biases arising when individuals are unable to accurately recall the amount of training they received and/or when definitions of training vary across diverse firms. The finding is that training makes a positive contribution on wage growth which translates into a company rate of return of at least 13%. In addition using data on performance ratings shows that training leads to an improvement in job performance.

Such studies in developed countries have led to similar studies in developing countries. However literature on cases of developing countries remains more limited. Betcherman et al (2004) review 69 impact evaluations of unemployed and youth training programs, only 19 of which are in developing countries. Regarding programs in Latin America where the number of the poor is considered as quite high, Betcherman et al conclude that training impacts in Latin America are more positive than the impacts of programs in the USA and Europe. Card et al (2007) present the first evaluation based on an experimental design for a job training voucher program in Latin America. The paper reveals that the Juventud y Empleo (JE) program in the Dominican Republic had no significant effect on employment. There is evidence of a modest (10%) impact on hourly wages and earnings per month, although the estimated are only marginally significant. Another randomization in Argentina (Galasso et al, 2001) shows some similar results. Voucher recipients had a significantly higher probability of employment, though their current incomes were no higher, and training had no significant impact.

**b. Explanation of what are the gaps in this literature**

Although there have been a number of non-experimental and experimental studies on training vouchers, they still show some gaps which require additional researches. *Firstly*, as
mentioned above, randomization researches on vocational training in developing countries are more limited than in developed countries. Meanwhile the number of people in developing countries who need vocational training may be higher than that in developed countries due to higher population and lower skill levels. Therefore there should be more vocational training support programs as well as researches on their impacts in developing country settings. Secondly, there have not been any randomization studies on vocational training programs in Vietnam. Even non-experimental researches on this issue are quite rare. Recently Ministry of Finance has conducted a survey over 3035 redundancies on their use of compensation amounts. The survey aimed at the following objectives: (i) assess the efficiency of the support policies on redundancies for the restructured enterprises; (ii) assess the efficiency of the support policies on redundancies for redundant workers; and (iii) assess the transparency of the process of selection and payment of the subsidies for redundant workers in SOEs. However it is merely a qualitative study. Finally, most programs in other countries aim at the youth, the poor or some other disadvantaged groups. There are few quantitative studies on impacts of vocational training provision for redundancies due to enterprise restructuring. This group of people may have some different characteristics of those in such programs of other countries. For instance they are not too young and/or too inexperienced to learn from scratch. This may require special training scheme for them. As a result the training impacts may be different from those under youth training programs. Therefore such considerations pose a request for a randomization study on the impacts of vocational training vouchers for redundancies in restructured SOEs in Vietnam.

c. **Explanation of how filling these gaps is relevant to specific country policy issues**

As Vietnam is a populated developing country, it is necessary to provide vocational training for people, especially the disadvantaged, so that they have better chances to find jobs. However it is quite difficult for the Government to conduct expensive social support programs like a widely-spread vocational training scheme due to budget limitation. Therefore a smaller scale targeted program may provide policy makers with justifications to make suitable policies on vocational training support. Meanwhile the current SOE reform in Vietnam has made a number of people redundant, which poses significant social issues. Hence a pilot study on vocational training scheme for redundancies due to SOE restructuring is quite a good start. Actually the Government issued a decree on redundancy settlement in SOE restructuring.
Under this stipulation, redundancies may be entitled to various compensation methods. One of them is to get training vouchers for up to six months of training. Redundancies have to find and take their own training classes and send invoices to the national Redundancy Fund authority for reimbursement. There is a lack of monitoring of the training voucher scheme, which leads to a low rate of training participation of redundancies\(^2\). In addition there is a lack of study on the impacts of the training voucher scheme over redundancies using quantitative methods. Especially there has been no study related to redundancies since 2005. Those justifications show that there should be a scientific study on this issue for the Government to decide whether to continue the program or not. If yes, how to improve it. If no, whether there are suitable policy alternatives. Hence a randomized experiment on training voucher scheme for redundancies may help identify the actual impacts of the scheme, which provides quantitative input for policy recommendations for further improvement of the program. Moreover when Vietnam completes the SOE restructuring program, it is possible that there should be programs for redundancies of private companies or programs for the youth. Results from this study may shed some light for such future programs.

C. Methods

a. General description of the intervention

It is proposed that the study will assess the impact of the training voucher scheme over the increase in monthly income of redundancies. To do so, the research team will conduct a randomization project on the targeted population.

Since SOEs to be restructured have not prepared their labor restructuring plan, it is quite difficult to get the accurate number of to-be redundancies. However, with 1,500 SOEs to be restructured, it is estimated that the population of redundancies may be around 100,000. About half of them are under 45 and need to get new jobs for their living. This group may be keen on learning new skills to get better jobs or start their own businesses, and a good vocational training scheme may be of their interest. However it is noted that education level may influence their learning ability. A vocational training course may require certain level of education to master it. Due to budget limit, it is proposed that a training class must have at least 20 participants who should have similar education level to ensure good training efficiency. So it is proposed that the population of this study will be redundancies who are

\(^2\) According to a survey on 3,035 redundancies of the Ministry of Finance, the rate of redundancies taking training classes was just over 3%.
between 18 and 45 of age, have completed secondary schooling level at least and have not taken any vocational training courses after being made redundant. They are defined as redundancies by SOEs which have been restructured between 2007 and 2009. Although the research may start by the end of 2008, the team still suggests select redundancies in SOEs starting their restructuring in 2007. There are two reasons for this. Firstly, some SOEs take quite a long time to conduct their restructuring process. Redundancies may have already been identified but have not received any financial and/or training support, because their enterprises have not completed the reform process. Secondly, the SOE reform process in Vietnam may be prolonged than expected, which may cause problem of participant availability.

Out of the above research population, a sample will be drawn. It will be divided equally into control and treated groups. The treated group will receive free vocational training. Both groups will also receive job search assistance. After twelve months from the completion of training, both groups will be surveyed. The first expected outcome is that those in the treated group can find jobs. The second and key expected outcome is that the mean monthly earning of the treated group will be higher than that of the control group. The third outcome is that the increased income of those in the treated group is economically significant. Besides, some other outcomes may be estimated, for example, mean time to find a job, whether job with social insurance, whether people have to move to other locations to get jobs, etc.

The twelve-month period may be deemed sufficient for the evaluation of impacts. Randomization studies on training programs in the US also have similar timing of effects. For example Friedlander (1988) measures the employment in quarters 2 and 3 (short-term) or quarters 4 to 6 (long-term) after random assignment of the mandatory welfare-to-work programs in San Diego, Baltimore, Virginia, Arkansas and Cook County. Under the National JTPA study, Barnow (1999) studies earnings and hours worked in month 10 after random assignment.

Regarding the data, the research team will use both existing and new data. The team will make use of existing survey of the Ministry of Finance to get the overall picture of redundancies. In addition new data will be collected via the baseline and follow-up surveys. The analysis is based on the data which is collected from the randomized experiment. The key method to analyze data is to run the OLS regression on monthly earnings of participants with the dependent variable being the dummy for assignment to the treatment group.
b. The experiment/intervention

The research team will conduct a randomization project on redundancies of restructured SOEs. The team will roughly select eligible candidates from the lists of redundancies of restructured SOEs. A baseline survey will be conducted to identify characteristics of redundancies. Participants will be then randomly and equally divided into control and treatment groups. Those in the treatment group will receive free vocational training. Those in the control group will be requested to not take any vocational training courses funded by the Government. In addition both groups will receive job search assistance. It is expected that training courses may last for three months and redundancies then need at least six to twelve months to search for new jobs or start new businesses. Only at that time the survey will be conducted to assess the impact of the scheme. Regarding the data on redundancies, the research team will target redundancies of SOEs to be restructured in 2007-2009 based on the Government’s SOE Reform Plan and the actual restructuring progress of SOEs. It is also proposed that the research team will select SOEs with high number of redundancies, operating in a limited number of industries and concentrated in certain provinces. This will ease the vocational training organization. Information on these SOEs and redundancies can be collected from the Central Redundancy Fund authority (i.e. the State Capital Investment Corporation under Ministry of Finance) who are responsible for redundancy compensation.

It is understood that training quality may also have certain influence on the impact evaluation. Hence the research team will use proper methods to find the possibly best training institutions for participants. The team will use information from the baseline survey (i.e. training needs of participants) and Vietnam labor market demands to make choice of training topics. Up to four training topics may be identified before calling for training service supply. Training institutions will be selected via a competitive process, regardless of their ownership structure. Depending on the training topics, proposals from potential training providers may be required to include written commitments from one or more firms to offer a two-month internship to all trainees from the provider’s program. This is supposed to ensure that the training institutions are offering training that will be of value to local employers. Also training institutions will be required to follow up the trainees during the internship period to provide counseling and technical assistance. The Department of Vocational Training of Ministry of Labor, War Invalids and Social Affairs may help evaluate training proposals. As restructured
SOEs may be located in various provinces which have different employment demands and each training institutions may have different training strengths, several training institutions may be selected depending on types of training courses and location of training. This will also help reduce training cost of the experiment. Although several training providers may be selected, there will be only one training curriculum for each training topic.

In addition training providers are requested to provide job search assistance to participants in both control and treated groups. They will provide information on local labor market demands, job vacancies and job brokerage centres. Such information will be circulated to participants by the research team to ensure homogeneous information supply.

Twelve months after the training, those in the treatment group will be interviewed. Those in the control group will be interviewed earlier to ensure that both groups will be assessed after twelve months of participation. The analysis will take into account the inflation factor when assessing the monthly income of participants.

As mentioned above the beneficiaries are redundancies of SOEs conducting their restructuring process between 2007 and 2009. However they should meet the eligibility requirement. They are randomly selected and willing to participate in the experiment. They should be between 18 and 45. Their education should be equal or above secondary level. They have not taken any vocational training courses after being made redundant. There will be effort to ensure roughly equal male-female participation.

Those in the treatment group will receive free training for a period of up to three months. Tentatively the training cost per participant will be USD 200. In addition they will receive daily stipend during the training course to support for their lunch and traveling cost. Some participants who live far from the training venue may receive additional allowance for hotel accommodation. The training course will be designed to meet the labor demand of local employers. Besides, trainees can enjoy technical counseling from training providers and internship scheme, as well as job search assistance as mentioned above. Regarding those in the control group, they will get job search assistance as a benefit of participation in the experiment.

The research team will get information on restructured SOEs between 2007 and 2009 from the State Capital Investment Corporation (under Ministry of Finance) who is assigned to manage and disburse the Redundancy Fund. Due to budget limit, the team will make efforts to select SOEs with high number of redundancies and are located close to each other. This will
help save traveling costs for treated participants. The team will contact these enterprises’ managers who help circulate invitations to the experiment among eligible redundancies of these enterprises. Applicants will complete a survey that gathers more detailed information on their age, education, employment status, income, training need, etc.

Once a group of at least 40 eligible participants are identified, the research team will select 20 treated participants by lottery among eligible candidates. The other 20 will be considered as the control group. Up to 10 people in the control group may be reassigned to the treatment group by lottery if one or more of the original treatments fail to show up for training (“no-show”) or drop out within the first two weeks of the course (“drop-out”). Of course, certain demographic characteristics of redundancies (such as age, gender) and/or initial income level may be taken into account to ensure the initial similarity of the control and treated groups.

The research team will be in charge of designing and monitoring the experiment. The team will contact SOEs, redundancies, training providers and related government agencies. They will conduct the selection of training providers and experiment participants. Besides they will conduct data analysis and reporting, once the experiment completes. However the training will be delivered by training institutions who will be selected via a competitive bidding process. Besides, the team will cooperate with other organizations to conduct the data collection, for example provincial Department of Labor, War Invalids and Social Affairs, local Statistic Offices. Meanwhile related government agencies will support the research team in terms of information on restructured SOEs (State Capital Investment Corporation), list of redundancies (SOE management), suggested list of good training providers (Department of Vocational Training under Ministry of Labor, War Invalids and Social Affairs) and other logistic advice.

The research team has identified some possible problems based on practical situation in Vietnam and experiences of similar studies in other countries.

4. One, those in the control group may also receive training vouchers provided by the Government. Indeed the Government rarely pays for redundancies on time. According to current regulations, it takes at least two months for approval of redundancy settlement plan submitted by the enterprises. Then another one month is needed for the quickest disbursement. In reality redundancies may have to wait for a year or more to get payment. Hence they tend to wait for allowance disbursement before taking a
training course. Besides, there is a lack of job orientation and information on good training institutions. That’s why the survey of the Ministry of Finance shows that only 3.7% of redundancies have taken training courses so far. This showed the hesitation of redundancies on taking vocational training courses. The team proposes that the training will be conducted right after the redundancies and their training needs are identified. Therefore it is rare that the control group may get similar treatment and need to be excluded from the survey. The team will request those in the control group to not take any training courses during a year of participating in the experiment. To compensate for them, a sum of allowance will be given to them in quarterly interviews. If some of them still take training courses within the first six months of the experiment, the team will identify other substitutes. If most control individuals take training courses, the team will use statistical techniques to separate impacts of the experiment from those of the Government scheme.

5. Two, it may be difficult to identify the whole population within several months since SOEs may conduct their restructuring process at different times in the year. To solve this, the research team will try their best to identify as many redundancies within several months as possible. In addition the team intends to extend the selection to redundancies of SOEs started their restructuring since 2007. However the analysis stage of the study may be behind the schedule, due to possible longer time for experiment than expected.

6. Three, the treatments are either dropout or no-shows, and/or the control may move to the treatment or leave. Therefore the outcome of the analysis may not show the true picture of the average value of the training. To reduce the rate of dropout or no-show, the team will introduce a competitive bidding process to select the possibly best training providers to ensure high training quality. In addition participants will be informed that they will get job search assistance after completing the courses. Another measure is, as mentioned above, to reassign certain people in the control group to the treatment group. For the control group, information on free training courses will not be provided. If some of them know about it and request for moving to the treatment group, they will be refused unless they are randomly reassigned to the treatment group. To make sure that they will not leave the experiment, the team will offer job search
7. Four, it may be difficult to trace participants after twelve months. The individuals who are most successful in the market might be harder to interview because they have moved elsewhere or because they are so busy working that they do not have time to be interviewed. Alternatively, those who are least successful might be easier to interview—because they aren’t working—or might be harder to find and interview, for example if they migrated to another city for working. To solve this problem, the team will take several measures. One, those in the control group will get job search assistance and certain allowance to encourage their full participation. Meanwhile those in the treatment group will not receive the original of the training certificate. Whenever they need the certificate to apply for a job, a notarized copy will be sent to the employers who are informed by the treated participants. Information on the treated participants may then be traced both from the participants and the employers. The original certificate will be given to the participants after twelve months of the training. Two, participants have to provide contact information of themselves and one of their closest relatives. When they move to other provinces to find jobs, the team may contact their next of kin for information. Three, the team will try to trace them every quarter by phones and/or emails to timely include substitutes if some of them cannot be traced after six months. Four, if the attrition rate remains high, the team may use statistical techniques to solve the attrition bias problem.

8. Finally, it is understood that the experiment may require considerable human resources. Therefore the research team will cooperate with relevant Departments of Labour, War Invalids and Social Affairs in related provinces as well as regional vocational training institutions to conduct the training. The Departments may also help identify redundancies to be included in the survey as well as recommend training providers to be invited for bidding. In addition information on restructured SOEs can also be provided by the State Capital Investment Corporation who is in charge of disbursing redundancy allowance for all enterprises. Also the team, with the support of the leadership of the Central Institute for Economic Management (CIEM), will mobilize other CIEM researchers to this experiment. Currently CIEM has a Department on SOE policy research which may support research aspects on SOEs and
redundancies, especially survey design and implementation. The Department on training and consultancy may help with the selection of training providers and training logistics. And the Department on Macroeconomic Research will help with data analysis, especially the modeling and testing component of the study.

c. **Data collection methods**

It is proposed that a baseline data will be collected, since this is the first experiment of this kind to be conducted in Vietnam. Besides, there should be updated information on redundancies in terms of their income, demographic characteristics, professional skills, and so on. However the research team will make use of the survey on 3,035 redundancies conducted by the Ministry of Finance in 2005 for preliminary information on characteristics of redundancies. This will help the team make essential changes in participant selection criteria and/or training course design.

The population of the study will be redundancies of SOEs to be restructured in 2007 – 2009. It is expected that they should need new jobs to earn their living and be capable of acquiring necessary skills for new jobs. Hence such redundancies must meet some criteria: age between 18 and 45, completed secondary schooling level at least, having not taken any vocational training after redundancy and desire to look for new jobs.

As mentioned above the team will use the oversubscription design, where candidates will be asked to apply and the program will be randomized among applicants. This helps decrease the sample size. In addition, the team is also prone to gender issue. Therefore they will make efforts to ensure equal male-female participation. Besides, the team will make all possible effort to stratify the sample by SOE, income level, education level or location. However it may be difficult to have sufficient observations within a short research period and to have sufficient budget for a large sample size for various stratification aspects.

Regarding sample size calculation, since there is no other related studies except for the survey of the Ministry of Finance which does not provide sufficient information, the team has to make their own guess. The research team intends to calculate the sample size under the formula proposed by Bloom (2006).

Consider a balanced allocation of sample size, i.e. half of the sample is randomized to a treatment group and half is randomized to a control group, and everyone adheres to their assigned treatment. Follow-up data are obtained for all sample members and the treatment effect is estimated by the difference in mean outcomes for the two groups $Y_T - Y_C$. This
difference provides an unbiased estimate of the average treatment effect (ATE) for the study sample, because the mean outcome for control individuals is an unbiased estimate of what the mean outcome would have been for treatment individuals had they not been offered the treatment (their counterfactual).

However any given sample can yield a treatment group and control group with pre-existing differences that occur solely by chance and can overestimate or underestimate the ATE. The standard error of the impact estimator accounts for this random error is:

\[
SE(\bar{Y}_T - \bar{Y}_C) = \sqrt{\frac{\sigma^2}{nP(1-P)}}
\]

Where:

P is the proportion of the sample that is randomized to treatment
N is the sample size
\(\sigma^2\) is the outcome variance across subjects in the experiment group

The next steps are to choose a sample size and allocation that maximize precision given existing constraints. For this purpose, it is useful to measure precision in terms of minimum detectable effects which are defined as the smallest true treatment effect that has a specified level of statistical power for a particular level of statistical significance, given a specific statistical test.

Figure 1 illustrates that the minimum detectable effect of an impact estimator is a multiple of its standard error. The first bell-shaped curve (on the left of the figure) represents a t distribution for a null hypothesis of zero impact. For a positive impact estimate to be statistically significant at the \(\alpha\) level with a one-tail test (or at the \(\alpha/2\) level with a two-tailed test), the estimate must fall to the right of the critical t-value, \(t_\alpha\) (or \(t_{\alpha/2}\)), of the first distribution. The second bell-shaped curve represents a t distribution for an alternative hypothesis that the true impact equals a specific minimum detectable effect. To have a probability \((1 - B)\) of detecting the minimum detectable effect it must lie a distance of \(t_{1-B}\) to the right of the critical t-value for the null hypothesis. (The probability \((1 - B)\) represents the level of statistical power.) Hence the minimum detectable effect must lie a total distance of \(t_\alpha + t_{1-B}\) (or \(t_{\alpha/2} + t_{1-B}\)) from the null hypothesis.
Because t-values are multiples of the standard error of an impact estimator, the minimum detectable effect is either $t_\alpha + t_{1-B}$ (for a one-tail test) or $t_{\alpha/2} + t_{1-B}$ (for a two-tail test) times the standard error. These critical t values depend on the number of degrees of freedom.

A common convention for defining minimum detectable effects is to set statistical significance ($\alpha$) at 0.05 and statistical power (1 – $B$) at 80 percent. When the number of degrees of freedom exceeds about 20, the multiplier equals roughly 2.5 for a one-tail test and 2.8 for a two-tail test. So, the minimum detectable effect is calculated as

$$MDE(\bar{Y}_t - \bar{Y}_c) = M_{n-2} \sqrt{\frac{\sigma^2}{nP(1-P)}}$$

Where:

MDE (minimum detectable effect) is the smallest true treatment effect that the research design can detect with confidence.

$M_{n-2}$ is the multiplier given by a t-table

P is the proportion of the sample that is randomized to treatment

N is the sample size

$\sigma^2$ is the outcome variance across subjects in the experiment group

Sometimes impacts are measured as a standardized mean difference or “effect size”. The standardized mean difference effect size (ES) equals the difference in mean outcomes for the treatment group and control group, divided by the standard deviation of outcomes across
subjects within experimental groups. Standardized mean effect sizes are therefore measured in units of standard deviations. When impacts are reported in effect size, precision can be reported as a minimum detectable effect size, where:

\[
MDES(\tilde{\gamma}_T - \tilde{\gamma}_C) = M_n - 2 \sqrt{nP(1-P)}
\]

In this experiment, the study team sets the significant level \( \alpha = 0.05 \), the statistical power = 80\%, which makes the multiplier for two-tail test = 2.8. To maximize precision, the team proposes balanced allocation in sample size, i.e. \( P = .5 \). In addition, the team makes a guess that MDES = 0.30, i.e. the impact equals to 0.30 standard deviations. With such assumptions, the sample size is calculated as 350\(^3\). Hence each group should have 175 subjects. In addition, the team proposes another 10\% reservation for attrition, which makes the sample being 385.

There will be two questionnaires: the baseline and the follow-up ones. The baseline questionnaires will be the same for both control and treated groups. Key data include:

- Classification of nominal data to identify control and treatment individuals
- Contact addresses of the redundancy and one his/her next of kin
- Demographic characteristics (age, gender…)
- Education level
- Living location
- Income level and sources of income at the time of redundancy
- Level of working skills, reasons of redundancy
- Training needs
- Expectation of new jobs (type of job, expected earnings, whether willing to move to other regions to search jobs, etc).
- Commitment to experiment participation
- Any suggestion to experiment organizers

The post-experiment questionnaire will consist of classification, exposure to treatment variables, outcome variables and intervening variables. For example:

\(^3\) Experiences show that a sample with more than 90 subjects is statistically sufficient.
- Assessment of training courses taken (suitability, usefulness, quality) (Note: this question is only for the treated participants)
- Do they need to take any vocational training other than the one provided under the experiment?
- Monthly earnings after twelve months of experiment
- Income level and sources of income after twelve months of experiment
- Can they find jobs
- Types of new jobs or new business they have found
- How long can they find a new job? How easy to find a job? Why?
- Is it a long-term or short-term job?
- Are they entitled to social insurance scheme?
- Are training skills useful and/or suitable with their new jobs? (Note: this question is only for the treated participants)
- Other reasons for income gain
- Any suggestions to the experiment organizers
- Any suggestions to government policy

To collect these data, the research team will design the questionnaires and outsource the survey implementation to the CIEM Department on SOE policy research. Besides, the survey team will cooperate with provincial Departments of Labor, War Invalids and Social Affairs to ensure good data collection. The team will monitor the survey group by frequently checking progress. The team will also regularly trace the participant every quarter to reduce the drop-out rate. The baseline questionnaires will be sent to at least 500 redundancies to ensure the calculated sample size and a contingency for drop-outs. Twelve months after the baseline survey, those in the control group will be re-interviewed. Twelve months after the training courses, those in the treated group will be re-interviewed. Of course it is impossible to identify the whole sample at one point of time, because SOEs may conduct their restructuring at different points of time. Therefore the baseline and post-experiment surveys will be conducted within a time-scale of about three-month each.

To support the key data collection and analysis, the team also needs to collect additional data as follows:
- Legal documents on Government support for redundancies
d. Modeling and testing

After having sufficient data, the research team will conduct the quantitative analysis. The key methodology is randomization analysis as guided by Esther Duflo et al (2006). The research questions are (i) whether the training voucher scheme has any impacts on the employability of redundancies of restructured SOEs, and (ii) whether the training voucher scheme has any impacts on monthly income of redundancies.

We denote $Y_i^T$ the average monthly earning of redundancy $i$ take part in the training program and $Y_i^C$ the average monthly earning of redundancy $i$ not take part in the training program. The research studies the difference $Y_i^T - Y_i^C$, which is the effect of taking vocational training for redundancy $i$. As we will not be able to observe a redundancy $i$ both with and without training at the same time, we will therefore not be able to estimate individual treatment effects. While every redundancy has two potential outcomes, only one is observed for each redundancy. However we may learn the expected average effect that training has on the redundancies in a population:

$$E[Y_i^T - Y_i^C]$$

Assume that we have a large number of redundancies. Some take training courses and others do not. We can take the average of both groups and examine the difference between average monthly earnings of those taking training courses and those not taking training courses. In a large sample, this will converge to

$$D = E[Y_i^T | \text{redundance with training}] - E[Y_i^C | \text{redundance without training}]$$

$$= E[Y_i^T | T] - E[Y_i^C | C]$$


$$= E[Y_i^T - Y_i^C | T] + E[Y_i^C | T] - E[Y_i^C | C]$$

The first term, $E[Y_i^T - Y_i^C | T]$, is the treatment effect that we are trying to isolate, i.e. on average, what difference vocational training made for redundancies. The second term, $E[Y_i^C | T] - E[Y_i^C | C]$, is the selection bias. It shows the difference in potential untreated
outcomes between the treatment and the comparison redundancies, treatment redundancies may have different monthly earnings even if they had not been treated.

When we conduct the randomization with treatment and control groups, the average treatment effect can then be estimated as the difference in empirical means of Y between the two groups.

\[ \hat{D} = \hat{E}[Y_i | T] - \hat{E}[Y_i | C] \]

Where \( \hat{E} \) denotes the sample average. As the sample size increases, this difference converges to

\[ D = E[Y_i^T | T] - E[Y_i^C | C] \]

Since the treatment has been randomly assigned, individuals assigned to the treatment and control groups differ in expectation only through their exposure to the treatment. Had neither received the treatment, their outcomes would have been in expectation the same. This implies that the selection bias, \( E[Y_i^C | T] - E[Y_i^C | C] \), is equal to zero. If, in addition, the potential outcomes of a redundancy are unrelated to the treatment status of any other redundancies, we have

\[ E[Y_i | T] - E[Y_i | C] = E[Y_i^T - Y_i^C | T] = E[Y_i^T - Y_i^C], \]

the causal parameter of interest for treatment T

The estimation equation is

\[ Y = \beta_0 + \beta_1 T + \epsilon \]

Where: Y is the average monthly income of redundancies twelve months after the training course

T is dummy variable (T=1 if the redundant receives training voucher, and T=0, if not)

Hence \( \beta_1 \) can be considered as the impact of the scheme over income Y. It is expected that \( \beta_1 > 0 \) which means the training voucher scheme helps increase the income of redundancies.

Similarly the team will assess the employability of participants between the control and treated groups.

Depending on the availability of data, the team may assess other outcomes like mean time to find a job, types of job, income sustainability, etc.

The main objective of the experiment is to compare monthly income of treatment and control groups in terms of their means. For testing, the null hypothesis is: \( H_0: \mu_{\text{treatment}}=\mu_{\text{control}} \).

T-test will be used to examine the differences between treatment and control groups twelve months after the training course.
One important assumption for the above regression is that $T$ does not correlate with $\varepsilon$ or $E(\varepsilon|T)=0$. In other words, if there are other factors influencing the income of a redundant, such factors will not affect the fact that such redundant may or may not get the training voucher. Since at this moment it cannot be assured that such assumption can be met, another estimation may be also utilized. Specifically

$$Y = \alpha_0 + \alpha_1 T + \gamma_1 X_1 + \ldots + \gamma_n X_n + \varepsilon$$

Where $X_1, \ldots, X_n$ are such variables as initial income, professional skill level, experience, region, gender and so on. This will help identify whether these factors have additional impacts on the income of redundancies. However to ensure the statistical power of the sample, the number of factors will be limited to less than ten.

There may be several empirical problems.

Firstly, the team understands that it is difficult to conduct a pure randomization, which means selection bias still exists. To reduce selection bias, the team proposes to use the difference – in – difference estimates to control for pre-existing differences between the groups, if necessary. Denote by $Y_1^T$ ($Y_1^C$) the potential outcome “if treated” (if “untreated”) in period 1, after the treatment occurs, and $Y_0^T$ ($Y_1^C$) the potential outcome “if treated” (“if untreated”) in period 0, before the treatment occurs. Individuals belong to group $T$ or group $C$. Group $T$ is treated in period 1 and untreated in period 0. Group $C$ is never treated. The difference-in-difference estimator is

$$\bar{D}D = [E[Y_1^T | T] - E[Y_0^C | T] - E[Y_1^C | C] - E[Y_0^C | C]]$$

It will provide an unbiased estimate of the treatment effect under the assumption that [$\hat{E}(Y_1^C|T) - \hat{E}(Y_0^C|T)] = [\hat{E}(Y_1^C|C) - \hat{E}(Y_0^C|T)]$, i.e. that absent the treatment the outcomes in the two groups would have followed parallel trends.

Secondly, attrition may be a problem of the experiment. To solve this problem, the team proposes some measures to reduce attrition rate: (i) request for additional contact information; (ii) provide monthly allowance to ensure participation; (iii) track participants every quarter. However if the attrition rate remains high, the team will use the method introduced by Angrist et al (2006) when conducting the data analysis.

Let $y_{1i}$ denote the outcome for redundancy $i$ if offered treatment; $y_{0i}$ denote the outcome they would otherwise obtain; $D_i$ is an indicator variable for random assignment to treatment; $T_{1i}$ is an indicator variable for whether the individual would remain in the sample
conditional being assigned to the treatment group; and \( T_{oi} \) be an indicator whether they would remain in the sample if assigned to the comparison group.

With the assumption \( y_{1i} \geq y_{0i} \) and \( T_{1i} \geq T_{0i} \) for all \( i \).

Let define an outcome variable that is zero for attritors: \( Y_{Xi} = T_{Xi}y_{Xi} \) for \( X = \{0, 1\} \). Then we can write the following equation linking the actually observed outcome \( Y_i \) to potential outcome, attrition status, and treatment group:

\[
Y_i = Y_{0i} + (Y_{1i} - Y_{0i})D_i = T_{0i}y_{0i} + (T_{1i}y_{1i} - T_{0i}y_{0i})D_i
\]

Let \( q_0(\hat{\partial}) \) be the \( \hat{\partial} \)-quintile of the distribution of \( Y_{0i} \) and let \( q_1(\hat{\partial}) \) be the \( \hat{\partial} \)-quintile of the distribution of \( Y_{1i} \). Now define a rank-preservation restriction: \( Y_{1i} \) is said to be a \( \hat{\partial} \)-quintile preserving transformation of the random variable \( Y_{0i} \) if \( P(Y_{1i} \geq q_1(\hat{\partial}) | Y_{0i} \geq q_0(\hat{\partial})) = 1 \). In other words, the rank preservation restriction says that when the potential outcome in the comparison state is above a certain quintile in its own distribution, then the potential outcome in the treatment state is also above that quintile in its own distribution. Given the assumptions already outlined and a choice of \( m \) such that \( \hat{\partial} \geq \hat{\partial}_0 \) where \( q_{0i}(\hat{\partial}_0) = 0 \), Angrist et al. (2006) prove that

\[
E[Y_i | D_i = 1, Y_i > q_1(\hat{\partial})] \geq E[Y_i | D_i = 0, Y_i > q_0(\hat{\partial}), T_{oi} = 1]
\]
\[
\geq E[Y_i | D_i = 1, Y_i > q_0(\hat{\partial})] - E[Y_i | D_i = 0, Y_i > q_0(\hat{\partial})]
\]

One can then choose a quintile, \( \hat{\partial}_0 \), such that \( q_{0i}(\hat{\partial}_0) = 0 \), and then drop the lower \( \hat{\partial}_0 \) percent of the \( Y_{1i} \) distribution to obtain an upper bound on \( E[y_{1i} - y_{0i} | T_{oi} = 1] \) while the unadjusted treatment effect provides a lower bound. The bound will be the tighter, the lower is the attrition.

**e. Human subjects concerns**

Basically the project has no environmental risks. The research team also takes into account the gender and ethnic issues. Therefore they will make all possible efforts to ensure equal female – male participation. It is also understood that the control group may get little benefit from the experiment. Hence the team suggests provide job search assistance to this group. In addition they may get higher allowance for the interview.

Since this is a big project, the research team will cooperate with a number of agencies and independent researchers/interviewers. The team will have legal agreements with related parties on any components which need external resources. Under such agreements related parties and/or persons should be bound to the responsibility of ensuring confidentiality and no
harm for redundancies involved in the research. Besides, the questionnaires will include a statement of confidentiality protection for interviewees.

D. Consultation and Dissemination Strategy

The research team understands that the project result may be essential for policy adjustment to enhance benefits of redundancies. Therefore to ensure the efficiency of the study, the team will make use of all possible opportunities to disseminate information on the study. The consultation and dissemination will be via the following channels:

1- Project stakeholders: During project implementation, the research team will work closely with related government agencies, SOEs, training providers, other researchers and parties. The team will hold an inception seminar to introduce the study as well as to get comments and suggestion on how to organize the experiment. Once the team completes the draft report, at least three regional seminars will be organized. Participants will be related policy makers, academia, redundancies involved in the study and international organizations on poverty reduction. It is hoped that ideas and suggestions will be widely discussed and heard by the Government for policy revision. Also, the team member who is the Vice President of CIEM, a think-tank of the Government of Vietnam, will make use of his position to transfer the resulted message to the Government for policy revision.

2- International agencies: The study can be presented to several international agencies such as WB, UNDP, IMF or DFID, and other NGOs in Vietnam.

3- Domestic and international conferences: The report can be sent to domestic and international conferences so that the team can present their findings to other researchers. It should be noted that the results from the study will be prepared in the most simple and understandable, non-technical formats to the policy makers and non-technical audiences. However for scientific conferences, the study will be presented in more technical, mathematic and statistical ways for technical discussion and dissemination.

4- Publications: The research team will prepare one working paper and at least three domestic journals. The whole report will be presented as the working paper in the Central Institute for Economic Management. The brief findings and conclusion will be published in Economic Management Review (Central Institute for Economic Management) and Economic Forecasting Magazine (Ministry of Planning and Investment). More detailed methodology and results will be published in Journal of Development Economics (National Economics
University NEU), or the Journal of Economic Studies (Institute of Economics). The technical part will be published in Journal of Mathematical Application (Mathematical Association of Vietnam). It is hoped that CIEM will fund for the publication of a special issue dedicated to this study.

The team will make great efforts to present the study in a format of PEP working paper and at least two international papers. Full report will be put in a PEP working paper. Brief methodology and findings are expected in journals such as World Bank Research Observer or Journal of Development Economics, or World Development.

5- *Electronic publication*: The findings of the study will be also put in an international website of PEP, and Vietnamese websites of MOLISA, MOF, SCIC and CIEM.

E. The study team

a. *Principal investigator*

Ms. Lan Anh Vu (Vietnamese, age 31, gender: female).

She got one Master in Economics and another in Public Policy in the United Kingdom under the Chevening scholarship scheme. She is now proceeding for her PhD in Development Economics. She is interested in private sector development, poverty analysis and macroeconomic forecast. She has both research and project management experiences. Before joining CIEM, she worked as Project Officer of two technical assistance projects which had close links with the SOE reform process in Vietnam. From that, she has learnt about practical situation of restructured SOEs and redundancies. She participated in the implementation of a number of surveys, especially the survey on awareness of restructured SOEs and redundancies. Also she gained knowledge of managing development projects. When being a researcher at CIEM, she has participated in a number of research projects. Most of them are about policy research. She was the lead researcher of the study on the impacts of policies on private sector development after 20 years of economic reform – one of the eight key components of the UNDP Project on assessment of 20 years of economic reform in Vietnam. The study included the assessment on the equitization process in Vietnam. In addition, she has also involved in a number of quantitative studies. For example she was a team member of the quantitative study on determinants of SMEs’ growth in Vietnam. Notably she is the team leader of the research on inequality situation between 1997 and 2004 in Vietnam – a research award by the East Asia Development Network.
With such experience Ms. Lan Anh Vu may direct the project with convenience. She can make use of her contacts with enterprises, her management experience and research capacity to coordinate as well as to actually participate in project activities for a smooth project implementation.

b. Other key research staff

Asso. Prof., Dr. Xuan Ba Le (Vietnamese, age 55, gender: male)

He will act as the key advisor and guardian for other team members. He is now the Vice President of the Central Institute for Economic Management (CIEM) - a government think-tank of Vietnam. He got the PhD degree in Economics in Russia and has nearly 25 years of research experience. In addition to national research projects on macroeconomic issues, he has also led a number of studies on poverty reduction, SOE reform and rural development. Many of them had survey and quantitative analysis components. For example, he involved in the project entitled “Solow growth model with CES (constant elasticity of substitution) production function and its application for Vietnam in 2004”. In 2006 he acted as team leader of the study on “determinants on rural labour restructure transference in Vietnam”. The analysis is based on the dataset of Vietnam Household Living Standard Surveys (VLSS) 1992/1993, 1997/1998, 2001/2002 and 2004 and uses the switching regression model to estimate the factors impact on the labour transference. Most recently he has worked with international experts to conduct surveys and analysis on factors affecting the business growth of small and medium scale enterprises as well as the living environment of rural households which explained the way of getting out of poverty for households in Vietnam.

With a high position at CIEM, Dr. Le is able to mobilize other qualified CIEM researchers to participate in the project to ensure high deliverables. Specifically the Department for SOE policy research can be mobilized for the survey component. The Centre for Training and Consultancy can involve in training provider selection and training monitoring. The Department of Macroeconomic Policy Research can support for the modeling and testing component. Besides his personal contacts with other government agencies can be of great advantage. This may help the team choose and work efficiently with related government agencies and parties. One most crucial advantage is that he may use his position to transfer the policy message resulted from the study to the Prime Minister for quick policy adjustment.
Ms. Minh Thao Ta (Vietnamese, age 31, gender: female).

She got a Master in Economics in Japan with major in Public Policy. Although Ms. Ta is a young researcher, she has nearly eight years of research experience. Her research interests are private sector development, poverty reduction and econometrics. She has participated in a number of development researches. Recently she also conducted an analysis entitled “Determinants of firm growth in the North and the South” in 2006. The paper uses the model of optimal firm size as a theoretical framework to empirically analyze the factors affecting the growth of private firm in Vietnam and compare the different factors between the North and the South. She and Ms. Vu are conducting another study on quantitative assessment of inequality in Vietnam using the Living Standard surveys which is awarded by the East Asian Development Network. As a team member, Ms. Ta can make use of her experiences on survey implementation and econometrics skills.

Mr. Huy The Nguyen (Vietnamese, age: 31, gender: male).

He had a Bachelor in Economics and Public Administration. He is pursuing the Master degree on Applied Economics in Public Policy with the Fulbright scholarship. Before taking this course, Mr. Nguyen had extensive working experience with enterprises via his work at an insurance company. Since almost all projects he involved were very big, most of his clients were big SOEs or restructured enterprises. Before that, he had direct working experience in an SOE, which provided him with practical understanding of an SOE context. With such working experience, he may be a good coordinator and contactor during the experiment process. In addition his research capacity has been recognized by his lecturers at the Fulbright School. For example, he conducted a quantitative study on determinants to export and import of developing countries, which was highly acknowledged by his lecturers. He also has several studies on the financial market of Vietnam. His knowledge of econometrics, and randomization in particular, will be of great use in this project.

Capacity building

The participation in this project will provide huge capacity building for both the study team and related agencies/organizations.

For study team, they will gain capacity of randomization design and implementation, survey skills, model and testing and project management skills, etc. Specifically:
Ms. Lan Anh Vu

- Enhance research capacity, particularly the randomization technique
- Enhance experiment and survey skills
- Deepen knowledge of the SOE reform process and its issues
- Deepen knowledge of statistics, impact evaluation theory
- Broaden contacts with government agencies and redundancies
- Enhance team work relationship
- Improve management skills
- Improve research paper writing skills

Dr. Xuan Ba Le

- Enhance contact with government agencies and international organizations
- Encourage application of randomized evaluation approach on future impact evaluation studies in CIEM
- Support for his policy advice to the Government by using quantitative research results on policy impact valuation
- Enrich research and management experiences

Ms. Minh Thao Ta

- Strengthen research methodology
- Enhance survey skills (questionnaire design, in-depth interview, data analysis)
- Deepen knowledge of impact evaluation theory
- Improve research paper writing skills
- Improve team work experiences

Mr. Huy The Nguyen

- Enhance research capacity, especially randomization techniques
- Enhance survey skills (questionnaire design, in-depth interview, data analysis)
- Enhance contacts with redundancies
- Enhance project management skills
- Improve team work experiences
- Learn about academic paper writing
For related agencies/organization, participation in the project will enrich their knowledge of a new research method in Vietnam (randomization) and of the situation of redundancies in Vietnam. Specifically:

**CIEM departments (SOE research, training and consultancy and Macroeconomic Policy Research)**
- Enhance research capacity, especially on randomization techniques
- Enrich experiences on survey design and implementation
- Enrich experience on organizing vocational training
- Enrich knowledge of redundancies in Vietnam

**State Capital Investment Corporation (Ministry of Finance)**
- Learn about randomization techniques
- Enrich knowledge of redundancies in Vietnam to improve their work on redundancy allowance disbursement

**Department of Vocational Training (Ministry of Labor, War Invalids and Social Affairs)**
- Learn about randomization techniques
- Enrich knowledge of redundancies in Vietnam to improve their policy advice on vocational training supply

c. **Collaborators**

Understanding that this is a big project, the study team will cooperate with a number of organizations/individuals to ensure efficient project implementation. Specifically the team will collaborate with the following organizations:

- **Dr. Tri Thanh Vo**

Dr. Vo is the Director of the Department of Macroeconomic Policy Research of the CIEM. He got the PhD degree at the Australian National University. He worked as a research assistant to the World Bank project “LDC Trade and DC Wage Dispersion” between 1997 and 2001. He is also a member of the Board of Trustees of the Vietnam – Netherlands Master’s Program in Development Economics – a reputable post-graduate program in Vietnam. He is also the Country Coordinator of the East Asian Development Network. He has conducted a series of studies on poverty, trade and financial markets. Most of them use econometrics as tools of analysis. He has won a number of awards by international institutions like the UN,
World Bank, ADB, etc, for his studies on development economics. In this project, it is proposed that Dr. Vo will act as supervisor and tutor for young researchers, especially for the modeling and testing section.

- **CIEM research departments/researchers**
  - Department for SOE policy research: survey design and implementation
  - Centre for Training and Consultancy: training provider selection and training organization
  - Department of Macroeconomic Policy Research: modeling and testing

- **State Capital Investment Corporation (Ministry of Finance):**
  - Suggest on selection of SOEs
  - Provide information on restructured SOEs and redundancies
  - Support for contacts with SOEs

- **Department of Vocational Training (Ministry of Labor, War Invalids and Social Affairs)**
  - Provide advice on vocational training centers
  - Provide technical advice on vocational training design and curriculum
  - Support for selection of vocational training centers
  - Provide certain information on labor market demands

- **Provincial Departments of Labor, War Invalids and Social Affairs**
  - Support for survey implementation at locality
  - Support for local contacts

- **Training providers**
  - Deliver training
  - Provide support to treatment individuals
  - Provide information on the labor market, job vacancies
  - Provide advice on training organization to the study team

Since each collaborator makes different contribution to the project, there will be no significant disputes. The team will make all necessary efforts to ensure smooth cooperation among collaborators.
### Task allocation

<table>
<thead>
<tr>
<th>No</th>
<th>Task</th>
<th>Persons in charge</th>
<th>Collaborators</th>
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<tbody>
<tr>
<td>1</td>
<td><strong>Survey/experiment design</strong></td>
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<td>Other team members</td>
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<td>Refine experiment design</td>
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<td>Questionnaire design</td>
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<td>Questionnaire refinement</td>
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<td>Inception seminar</td>
<td>Lan Anh Vu, Huy The Nguyen</td>
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<td>Refine survey &amp; experiment design</td>
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<td>Call for training providers</td>
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<td>Evaluate training proposals</td>
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<td>Other team member, MOLISA Dept</td>
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<td>Award training contracts</td>
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<td>Training organizing</td>
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<td>Regular follow-up of participants</td>
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<td><strong>Follow-up survey</strong></td>
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<td>Tri Thanh Vo, Other team members</td>
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<td>Organize three seminars</td>
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<td>Lan Anh Vu, Minh Thao Ta, Tri Thanh Vo</td>
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<td>Other team members</td>
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</table>

**e. List of past, current, or pending projects in related areas involving team members**

1. **Project title**: Expenditure Inequality in Vietnam between 1997/98 and 2004 and its policy implications  
   Funding institution: East Asian Development Network  
   Team member involved: Lan Anh Vu (Team leader), Minh Thao Ta  
   Time: 2007-2008

2. **Project title**: Forecasting rural labour structure shift and designing employment creation measures in the process of industrialisation, modernisation and urbanisation in Vietnam  
   Funding institution: National Research Project  
   Team member involved: Xuan Ba Le (team leader), Minh Thao Ta, Lan Anh Vu  
   Time: 2007 - 2009

3. **Project title**: Determinants on rural labour restructure transference in Vietnam  
   Funding institution: Central Institute for Economic Management/NIAS
Team member involved: Xuan Ba Le (team leader), Minh Thao Ta, Lan Anh Vu
Time: 2005 - 2006

4. Project title: Labor market development in Vietnam
Funding institution: National research project
Team member involved: Xuan Ba Le (team leader), Minh Thao Ta
Time: 1998 - 2003

5. Project title: Resource Mobilization, Resource Allocation and Job Creation in Quang Nam Province
Funding institution: CIEM/NIAS
Team member involved: Xuan Ba Le
Time: 2003

6. Project title: Survey on rural households in selected provinces
Funding institution: Central Institute for Economic Management/DANIDA
Team member involved: Xuan Ba Le (team leader), Minh Thao Ta, Lan Anh Vu
Time: 2007

7. Project title: Household income determinations in Vietnam
Funding institution: CIEM/NIAS
Team member involved: Tri Thanh Vo, Minh Thao Ta
Time: 2002

8. Project title: Survey on awareness of restructured SOEs and their employees on the SOE reform process in Vietnam
Funding institution: DANIDA
Team member involved: Lan Anh Vu
Time: 2002

F. Timeline
It is proposed that the study will last for two years, with the following key milestones:
- September 2008: survey/experiment design
- October 2008 – June 2009: experiment implementation
- November 2009: follow-up survey
- January 2010: draft report
- May 2010: final report
- December 2010: working paper

**Detailed work plan**

<table>
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<tr>
<th>No</th>
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$^4$ Forecasts on inflation rate of 2008 are around 20%.
REFERENCES


