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Design for a Net Impact Evaluation of Retraining in China

Christopher J. O'Leary and Benu Bidani
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The main aim of the national reemployment project in China is to redeploy workers identified as redundant within urban state owned enterprises (SOEs) to new jobs.[1] As part of a larger effort to document the success of the reemployment project in China, a net impact analysis of retraining will be performed using a sample drawn from three cities which span the range of economic conditions in China: Shanghai, Wuhan and Shenyang.[2] This paper presents a practical design for the sampling necessary to undertake the evaluation.

Background

The reemployment project includes passive labor programs (PLPs) for providing income support to out of work job seekers, and active labor programs (ALPs) to promote reemployment outside of SOEs. The PLPs include monthly unemployment compensation (UC) payments which have a maximum duration of 2 years, and early retirement assistance available to women as early as age 45 and men at 50 which is 10 years before the usual retirement age for each group in some cities.[3] For laid-off workers still attached to a SOE (xiagang), income support is provided by the SOE. A typical amount paid Shanghai during 1998 is 244 yuan per month (about $30) in the first year unemployed and 205 per month in the second year. The ALPs include job placement functions of the ES, job skill retraining, self-employment assistance, community based employment, and wage subsidies which operate through the tax system. Unemployed who begin self-employment may take the balance of their UC entitlement as a lump sum payment, enterprises which hire unemployed UC beneficiaries receive the balance of the UC entitlement as a lump sum provided that the hiring commitment is for 2 or more years. These reemployment aspects or UC may be regarded as active measures embedded in the income maintenance program.

Users of the ES and retraining include both laid-off workers (xiagang) and unemployed workers. The laid-off workers (xiagang) remain attached to a SOE which provides public pension contribution, medical insurance and usually housing in addition to monthly income support. The unemployed include former xiagang who have become separated from a SOE, first time labor market entrants who are mostly recent school leavers, labor market re-entrants with

[1]Throughout the remainder of this report SOE refers to an enterprise within the class including state owned enterprises, collectively owned enterprises, and government agencies.

[2]The order of cities listed corresponds to the sequence of visits during the July 1998 mission to China. The review of sampling plans presented in this design follows the same order.

[3]The use of the early retirement policy has been abandoned since July 1998.

no attachment to a SOE, and workers laid off from enterprises which are not SOEs. Non-SOE enterprises include private firms, joint ventures, and informal employment arrangements.

Evaluation Methodology[4]

Since there is a possibility of selection bias in assigning job seekers to ALPs, special care must be taken in evaluating the impacts of these programs on labor market success. The following is a brief overview of three separate ways net program impacts may be estimated: (1) simple unadjusted comparison of means, (2) comparison of means using a matched pairs comparison group, and (3) regression adjusted impact estimates.

Unadjusted impact estimates

In terms of clearly guiding policy, simple unadjusted impact estimates are usually the most influential because they are easy to understand. This is the main appeal of program evaluation done using a classically designed experiment involving random assignment.[5] When random assignment has been achieved, modeling of behavior and complex econometric methods are not needed to estimate reliable program impacts. With large samples randomly assigned to treatment and control groups, observable and unobservable characteristics of the two groups should not differ on average so that any difference in outcomes may be attributed to exposure to the program. Program impacts may be computed as the simple difference between means of the samples of program participants and control group members on outcome measures of interest, or:

(1) $E(yp) - E(yc)$,

where E is the expectation operator yielding means of the random variables, y is an outcome of interest, and the index p denotes the sample of program participants while c denotes the comparison sample. Tests of significance are done using t-statistics.

The result of the computation stated in equation (1) is equivalent to the slope coefficient estimated by ordinary least squares (OLS) applied to a simple bivariate regression model. That is, program impacts can be estimated by running the OLS model:

(2) $yi = a0 + a1Pi + ui$,

on a pooled sample of comparison group members and program participants, where y is the outcome of interest, a1 is the impact of the program on the outcome for the ALP participants, a0 is the mean value of the outcome for comparison group members, P is a dummy variable with a value of 1 for active labor program (ALP) participants and 0 otherwise, ui is a normally

[4]This discussion of evaluation methodology is adapted from O'Leary (1997).

[5]For examples of employment programs evaluated using a classically designed field experiment see Decker and O'Leary (1995).

distributed mean zero error term, and i is an index denoting individuals in either the participant or comparison group samples. Tests for significance of program impacts are simply t-tests on the parameter a1.

Impact estimates using a matched pairs comparison group

When participant group and comparison group members differ significantly in terms of observable characteristics, it would not be surprising to observe different labor market success across program participant and comparison groups even in the absence of ALPs. To put the assessment of ALPs on an even footing, a separate comparison group for each sample of ALP participants may be formed using a matched pairs methodology.[6]

The comparison group will be randomly selected from the register of laid off and unemployed persons (see details in city sections). Matched pairs comparison groups were formed by comparing persons in the ALP participant samples with those in the full comparison group using the standardized Mahalanobis distance measure:

(3) $dpc = Sumk(Zpk - Zck)2$

where, the index p represents observations in an ALP participant sample and the index c represents observations from the comparison group, the index k runs over the n exogenous characteristics on which the observations are matched, and Z represents the standardized value of a characteristic where the mean and standard deviation of the characteristic is computed on the pooled sample of the comparison group sampling frame and the participants in the relevant ALP.

Using this distance measure, separate matched pairs comparison groups were selected for each ALP. The person with the smallest dpc from the full comparison group sampling frame was selected for inclusion in the matched pairs comparison group, with ties being resolved randomly and each person in the ALP sample being compared to all those in the full comparison group sampling frame.[7]

After forming the matched pairs comparison groups, program impact estimates were computed using a simple difference of means, with significance of impacts being judged by t-tests. It should be noted that because a single observation from the comparison sample may be chosen more than once for the synthetic comparison group, the estimated standard error, computed in the usual way, for this group will be reduced. The t-tests for the matched pairs analysis therefore depend on weighted standard error estimates which give the upper bound on the possible standard error.

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[6]See Fraker and Maynard (1987) for an interesting review and application of comparison group designs for evaluating employment-related programs.

[7]That is, sampling was done with replacement.

Regression Adjusted Impact Estimates

Multivariate regression analysis is a natural method for assessing the net impact of program participation on labor market success when observable characteristics of participant and comparison group members are dramatically different. This method involves a simple extension of equation (2). In such cases, estimation of the model:

(4) $y_i = a_0 + a_1P_i + b_1X_{1i} + b_2X_{2i} + ... + b_nX_{ni} + u_i,$

by OLS on the pooled sample yields net program impact estimates.[8]

In equation (4) y is the outcome of interest, a0 is the mean value of the outcome for comparison group members evaluated at the mean of all observable characteristics included in the regression, P is a dummy variable with a value of 1 for program participation and 0 otherwise, a1 is the impact of the program on the outcome for the program participants evaluated at the mean of all observable characteristics, X1 to Xn are observable characteristics measured as deviations from their mean values, ui is a normally distributed mean zero error term, and i is an index denoting individuals in either the participant or comparison group samples.[9]

This method yields net program impacts adjusted for observable characteristics.[10] The estimates are called net because the comparison and program participant groups are statistically adjusted so as to remove heterogeneiety across the samples. That is, the only remaining factor contributing to a difference in the outcome measure is exposure to the program treatment. The estimation methodology nets out all other observable factors affecting the outcome.

Method for separating out impacts of multiple programs

It is very possible that an individual may have participated in more than one ALP. In particular, it is a frequent occupance that a participant in an ALP such as retraining will also use the services of the ES in an effort to gain reemployment. To estimate the impact of a single

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[8]In this report, since the main dependent variable of interest--in a normal job--is binary, the regression model predicts the probability of reemployment. The OLS estimation is a linear probability model, which may yield biased estimates. OLS estimates may be biased since the range of variation in the dependent variable is constrained to the zero-one interval. Maddala (1982, Chapter 1) suggests using the logit estimator in such cases. Bias is usually most severe when the bulk of probability clusters at one or other extreme of the zero-one interval Since reemployment probabilities for the ALP and comparison groups generally range from about 40 to 60 percent, the limited range of the dependent variable is not a likely source of severe bias in estimating parameters by OLS.

[9]In this application the regression model is a statement of an analysis of covariance methodology, where X1 to Xn are the covariates. Mohr (1992, pp. 83-87) discusses extending a regression model for program impacts to include control variables.

[10]The obvious next procedure to adjust for differences across samples is to account for differences in unobservable characteristics. The technique, which involves applying the methods of Heckman (1976), is problematic because instruments are usually not available to explain program participation independent of reemployment success.

program when some in a sample being analyzed have used more than one program, a simple regression model may be used. Suppose that someone uses both an ALP and the ES, then a model like the following might be estimated:

(5) $yi = a0 + b1ALPi + b2ESi + b3ALPi *ESi + c1Xi + ui,$

where ALP represents participation in an ALP, ES represents use of an ES service, X represents exogenous control variables, y is the outcome of interest, and u is a normally distributed mean zero error term. After estimating an equation of this form by OLS, the marginal effect of the ALP on y is estimated by the sum of b1 + b3*E(ES), where E is the expectation operator and E(ES) is the mean of the variable ES or the proportion of the sample which used the ES. Similarly the marginal effect of the ES on y is estimated by the sum of b2 + b3*E(ALP). Tests of confidence on these sums of estimates may easily be performed as F-tests.

Sample Size Requirements for Power Tests of ALP Effects

Samples shall be specified to be of sufficient size to ensure precision of desired impact estimates. The sample sizes are based on considerations of power tests for observing effects of a size that would be of interest to policy makers. That is, the samples should be set to be large enough to reject the null hypothesis of no effect with sufficient power to accept the alternative that an intervention is efficacious. Furthermore, the sample sizes should be of sufficient size to provide reliable estimates of differential program effects on important demographic and regional sub-groups.

The main program outcome guiding sample size determination is the proportion employed on the survey date, and samples should be of sufficient size to detect program impacts of 5 percentage points or more where the difference is measured from 50 percent.

Testing the difference between proportions is somewhat complicated by the fact that the sample sizes required for properly testing a given difference between proportions varies depending on whether the proportions are near zero or one. Specifically, the required sample sizes for testing the difference in proportions with adequate power depend on the effect size, h, which is the difference in the arcsin transformation of the proportions. That is, f(p) = 2arcsin p and the effect size is h = abs(f(pp) - f(pc)) for non-directional tests where pp is the proportion employed among the ALP participant group and pc is the proportion employed among the comparison group. For tests of abs(pp - pc) = 0.05 when pp is around 0.5 then h = 0.1. To perform two tailed tests at the confidence level of 98 percent with a power of 80 percent and h = 0.1 the harmonic mean of the sample sizes should be at least 2,007 in size, where the harmonic mean, n', of the samples sizes is n' = 2npnc/(np + nc). Lowering the confidence level to 90 percent lowers the sample size requirement to 1,237. When pp is closer to either 0 or 1 the sample size requirements for similar tests [abs(pp - pc) = 0.05] are smaller.

Drawing Random Samples for Analysis

The following discussion explains the practical details for drawing random samples from populations of retraining participants who are xiagang, and gathering an appropriate comparison sample of xiagang from among who have not participated in an ALP. The details about how the sample sizes were set is explained under the discussion for Shanghai. The sample sizes will be the same in each city. The sampling sections for Wuhan and Shenyang therefore only presents the practical plans for actually drawing the samples.

Sampling in Shanghai

In Shanghai, income support and reemployment assistance for xiagang are mainly provided at reemployment centers of industry trusts, help is also often provided at enterprise stations. So far industrial restructuring in Shanghai has focused on 7 manufacturing industries: textiles, machinery, light industry, chemicals, instruments, electric appliances, and metallurgy. Therefore, there are now 7 industrial trust reemployment centers operating in Shanghai. Income support and reemployment assistance is provided for the unemployed at labor bureau employment service centers. There is one employment service center in each of the 5 counties and 15 districts which make up Shanghai.

Retraining participants

A random sample of 1,500 xiagang who were retraining participants drawn from among all those xiagang completing retraining financed with money from the municipal labor bureau fund during the first 3 months of 1998.

Beginning in November 1997, Shanghai has a well developed city wide networked data management system for retraining which covers more than 80 percent of the nearly 300 training centers in the city. The sample may be drawn by the computer services department of the Shanghai Employment Training Center, Mr. Zhang Jian Guo, Director. Records for training participants have an indicator which shows whether an out of work person is still attached to an SOE (xiagang) or not (unemployed).

The sample extract of 1,500 presumes an 80 percent survey response rate which will yield a final sample of about 1,200. In order to allow a house-to-house survey of persons in this sample, the random data extract should include the following for each person:

a sample sequence number ordered from 0001 to 1500
name
address
telephone number (if any)
date retraining was completed
retraining course code number (or a sample sequence number for training courses)

For each unique retraining course code number in the sample of retraining participants the following should be provided:

retraining course code number
type of retraining provider
  a-municipal retraining center
  b-district employment service retraining center
  c-private enterprise operating under contract
  d-other
skill level of retraining provided
  a-low skilled
  b-mid skilled
  c-high skilled
  d-junior technician
  e-senior technician
certificate granted to retraining completers
  a-vocational certification
  b-licence to practice
  c-university degree
duration of retraining
  number of hours per week:
  number of weeks:
size of retraining class
  number of students in the class:
qualification of class instructor
  a-senior technician
  b-university professor
  c-employment service staff
location of retraining
  a-ES retraining center
  b-Labor bureau retraining center
  c-private retraining contractor
  d-community school
  e-university

Comparison group

Ideally, we wish to draw a random sample of 2,150 xiagang first declared redundant during the last 3 months of 1997 drawn from the industrial trust centers and employment exchange network.

Since the beginning of 1996, Shanghai has had a well developed city wide networked data management system for job seekers which covers 19 district or county employment service centers in the city and the employment service trust centers for the 7 industries where economic

restructuring is under way. There is an indicator which identifies some persons in the data system as xiagang.

It is estimated that 70% of all xiagang workers in Shanghai are in these 7 trust centers and therefore all included in the computer network of the industrial trust centers. The remaining 30% belong to other sectors which are not organized into trust centers. We still have to determine where the lists of workers who are declared redundant from these sectors are maintained (it is likely to be at the employment exchange or Labor Bureau).

If it is not possible to draw a sample of laid off workers who were declared redundant, we can definitely draw a sample of workers who registered at the employment exchange between October 1 and December 31 1997. While this is a select sample, to be eligible for retraining in Shanghai, a person must be registered for job search with the employment exchange. While some approach a retraining center first, all must pass through an employment exchange first. Drawing a comparion group from laid off workers who are registered at the employment exchange would therefore include those who are eligible for training. This data is accessible from any one of the trust centers or employment exchange offices in Shanghai. It was demonstrated that a sample of laid off workers who registered between October 1 and December 31 1997 could be drawn by the computer services department of the Shanghai Instruments Group Reemployment Service Center, Ms. Jin Wei Dong, Director.

The sample size presumes an 80 percent survey response rate and that about 30 percent of job seekers participate in retraining which will yield a final sample of about 1,200. In order to allow a house-to-house survey of persons in this sample, the random data extract should include the following for each person:

a sample sequence number ordered from 0001 to 2150
name
address
telephone number (if any)
date first registered as a job seeker
date of most recent visit to the employment service office
number of referrals to job interviews
decision by employer about hiring on most recent interview

Sample size table for Shanghai

The size of the comparison sample required will increase as the proportion of those in the sample who have participated in an ALP increases.

Table 1. Sample sizes for the evaluation in Shanghai

City	Sample Size to Draw from Lists	Sample Interviewed (response rate ~ .8)	Sample for Analysis (comparison group proportion in an ALP ~ .7)
Shanghai			
Participant	1,500	1,200	1,200
Comparison	2,150	1,800	1,200
Total	3,750	3,000	2,400

Randomization in Drawing from Lists

The draws from lists of the training organization for participants and the employment exchange for comparison group members should be done in a way that will maximize the correspondence between the relevant populations of xiagang and the samples. That is, draws should be done randomly.

To get a random sample of 1,500 xiagang retrainees. If T is the number of xiagang who completed retraining during the first 3 months of 1998, then $p_T = (1,500/T)$ is probability of drawing any one of the training completers. A simple algorithm for random selection could then be based on the day of the month in which a person was born. If p_T is approximately (1/15) then randomly pick two numbers between 1 and 30 (perhaps using a table of random numbers). Suppose 7 and 23 are selected, then all xiagang training completers born on either the 7th or 23rd of any month will be in the sample.

For the random sample of 2,150 xiagang in the comparison group simply repeat the exercise. If C is the number of xiagang who registered as a job seeker during the last 3 months of 1997, then $p_T = (2,150/C)$ is probability of drawing any one of the registered xiagang job seekers.

Administrative Records versus the CULS

The proposed sampling methodology calls for drawing samples from administrative records of the employment service and retraining programs. This is clearly the most appropriate way to draw a sample of retraining participants. Drawing the comparison group sample from administrative records, however, may result in a less than complete picture of the training eligible population. An alternative strategy would involve expanding the Condition of Urban Laborers Survey (CULS) in Shanghai. Use of administrative records is recommended as a practical way to achieve adequate sample sizes within the available budget for conducting surveys.

The standard sample size for interviews in the Shanghai CULS is 30,000 persons. Surveys are done in 100 geographic sampling clusters each containing about 100 housing units

with an average household size of 3 persons. The sample size for the Shanghai CULS includes all persons in the households including those under working age and those past retirement age.

The most recent CULS survey in Shanghai counted 659 people unemployed by the ILO definition. Expanding the existing stratified random sampling scheme, a sample of 45,000 would yield 1,000 unemployed. Some fraction of these would be ALP participants. It would be possible to choose additional sampling clusters from high unemployment regions of Shanghai. Suppose that areas where unemployment is on average twice as high could be chosen. Then an additional 50 clusters (5,000 households) would yield 1,318 unemployed, and again some of these could not be used in the comparison group as they had participated in an ALP.

Sampling in Wuhan

Drawing a Random Sample of Retraining Participants

The Wuhan Municipal Labor Bureau (WMLB) reviews proposals for retraining courses, accepts some proposals and provides funding. Providers of training courses which have received funding deliver to the WMLB the registration forms of the trainees who have enrolled in the course. The registration form includes the following information:

Subject
Name
Sex
Date of Birth
Previous employer
Address
Contact number
Unemployed or laid off certificate number

After the training is approved the WMLB gives the course an approval code and the training institution provides the training. At the end of the training, the training provider sends a list of the people who finished the training using the same course approval code. The information included in the training lists for those who completed the training is:

Name
Date of birth
Place of birth
Residence permit in possession
Educational background
Highest educational attainment
Subject of training
Training grades-theoretical topics
Training grades-practical topics

While the address is not available on the list of the training completers, the approval code on the list of completers is exactly the same as on the list of the group that registers for training, and the address is available from the registration forms. So, from the approval code and name list it is possible to get the address and descriptive characteristics of training participants.

The WMLB maintains a register which lists all the training courses approved. The register is arranged by date of approval. The approval code is also listed in the register. A review of the register revealed the following to be the number of training participants among xiagang and laid off workers who completed the training courses in the months of interest.

Table 2. The number of training courses and participants in Wuhan

Month	Number of Courses	Number of participants
November 1997	30	2,638
December 1997	19	1,517
January 1997	5	318
February 1997	29	1,000
March 1997	26	1,343

Note: Participation is low in January because of the Spring festival.

The lists also indicate the status as being either xiagang or laid off. A random sample of xiagang who completed training during the first quarter of 1997 will be drawn. The list drawn will include 1,500 for the same reasons as those given under the discussion for Shanghai.

Obviously, for Wuhan the probability of drawing any single xiagang from among the xiagang completing retraining in the first quarter of 1997 will be much higher than the probability in Shanghai. Once the number of xiagang training course completers is known, the birth dates for random sampling can be set. The Training Department in the WMLB office can then provide a computer file which includes the following information:

Sample sequence number ordered from 0001 to 1500 number
Name
ID code
Sex
Date of birth
Registration date for training
Address

Comparison Group:

A sample of xiagang job seekers can be compiled using the lists maintained in the WMLB. Each SOE with xiagang sends a list of the names to the WMLB. These workers are issued documents called “passports” which indicate their status as xiagang. By showing this passport when registering for training, all fees are waived. The list of all xiagang workers is

available at the WMLB. Using the records that are maintained in the WMLB, a computer file of the people who were designated as xiagang in the period October 1 to December 31, 1998 may be prepared. From that list a random sample of 2,150 should be drawn for the same reasons as specified under the discussion for Shanghai. The sampling fraction may be specified following the procedure discussed above for Shanghai. The list provided by the WMLB should include the following information for each person chosen.

Sample Sequence Number (numbered from 1 to 2150)
Name
Sex
Address
Date of Birth
Status (Laid off or Registered Unemployed)
Date worker laid off or registered unemployed

Sampling in Shenyang

Drawing a Random Sample of Retraining Participants

Shenyang is likely to present the greatest difficulties for drawing a sample of training participants. The training lists are maintained by various training institutes. These lists are not centralized at any point and are the records are not computerized--they are maintained in hand written registers. In the Heping district of Shenyang municipality there were 39 training sites. Of the 39 training locations, three had been set up by the district government, 6 by the Education Department, and the rest by neighborhood committees. The Heping District Training Center conducts about 60 percent of all the training in the district.[11] Laid off workers seeking retraining register at the district training center. The registration form asks for the following information: name, age, gender, previous enterprise, telephone number, subject and timing of the training course.

Once, an individual is accepted into a course, detailed data are kept by course. The course data has information on all the laid off workers who have been accepted into the course, including name, age, education, address, date worker was laid off.

The course lists that are kept for laid off workers who participated in courses. The plan is to sample from those who participated in courses provided by district training centers between January 1 and March 31, 1998. While this is a select sampling frame covering only about 60 percent of those retrained, the alternative which involves canvasing hundreds of sites around the city is rejected as too costly in terms of time and money.

[11]In the first half of 1998 there were 9,458 laid off workers retrained in Heping district. Of these 5,661 workers were trained in the Heping District Training Center.

Fortunately the district training centers maintain separate lists of xiagang and other training participants so that it will be possible to target the sampling to the xiagang.

To support the evaluation, the Shenyang Labor Bureau would provide a computer file with the following information for all xiagang who completed training courses between the period January 1 and March 31 1998:

Sample sequence number ordered from 0001 to xxxxx
Name
ID code
Sex
Date of birth
Status (Laid off or Registered Unemployed)
Address
Registration date for training
Date of completion of training
Subject registered for

Using this master sample, a sample of 1,500 laid off and unemployed workers will be drawn randomly. As for Wuhan, in Shenyang the probability of drawing any single xiagang from among the xiagang completing retraining in the first quarter of 1997 will be much higher than the probability in Shanghai where many thousands completed retraining. Once the number of xiagang training course completers is known, the birth dates for random sampling can be set.

Comparison Group:

A sample of xiagang can be compiled using the lists maintained in the Shenyang Municipal Labor Bureau (SMLB). All enterprises who have surplus workers send the list of these workers to the SMLB. A "passport" system similar to that used in Wuhan is used in Shenyang. The passport provides cost free access to municipally supported training and other reemployment services. To support the evaluation, the SMLB would prepare a computer file of the people who became xiagang in the period October 1 to December 31, 1998 including the following information:

Sample Sequence Number (numbered from 1 to xxxxx)
Name
Sex
Address
Date of Birth
Status (Laid off or Registered Unemployed)
Date worker laid off/registered unemployed

Using this master sample, a sample of 2,150 laid off and unemployed workers will be drawn randomly by a process similar to that described above for the retraining participants.

Overall Sample Size Table

A table summarizing the sample requirements for Shanghai was given above. While the operational details of compiling the sample lists in Wuhan and Shenyang are different from Shanghai, the sample size requirements are the same. The total sample sizes therefore are simply three times that tabulated for the discussion of Shanghai. To be explicit about the final requirements a summary table is provided.

Table 3. Sample sizes for the evaluation in all three cities

City	Sample Size to Draw from Lists	Sample Interviewed	Sample for Analysis (comparison group proportion in an ALP ~ .7)
Shanghai			
Participant	1,500	1,200	1,200
Comparison	2,150	1,800	1,200
Wuhan			
Participant	1,500	1,200	1,200
Comparison	2,150	1,800	1,200
Shenyang			
Participant	1,500	1,200	1,200
Comparison	2,150	1,800	1,200
Total	11,250	9,000	7,200

Evaluating Employment Services Using the Comparison Group Data

The comparison group drawn for estimating the net impacts of retraining may also be used to evaluate the impact of assistance provided by the employment services.

The sample of 1800 xiagang workers will include some who have used employment service assistance more intensively than others. That is, some may not register at all, some may simply register, others may agressively have used assistance like job interview referrals or career guidance. We will use the data on the comparison group to try and evaluate the effectiveness of ES assistance, if we have adequate sample sizes, with appropriate statistical methodologies and caveats.

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