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The wage effects of training in Rural China

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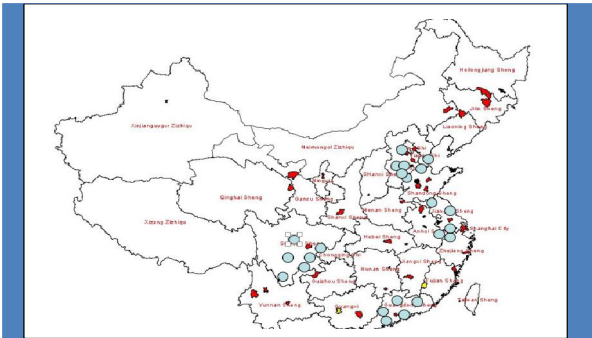
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BACKGROUND

- Amartya Sen (1999) demonstrated that during years when non-agricultural rural employment increases, rural poverty declines, and that the converse also holds. Thus, off-farm, rural employment is essential to combat rural poverty and to secure adequate livelihood within the households of small-holders and land-less agricultural labourers.
- labor traing plays very important role in promoting off-farm employment in rural China.
- While the return to education has been investigated extensively in China, much less empirical evidence is available about the wage effects of job training.



- The aim of this paper is to investigate the wage returns to job training for off-land farmers in China, taking into account the statistical complications present in existing studies. We use a national wide field survey conducted in 12 cities in China for the time period between 1996 and 2009.
- We use difference in difference method to compare the control and treatment group while we controlled the regional and age difference.



DATA:

The data for this study based on a large sample survey which was conducted during 2009 on a random sample of 2400 immigrants in 12 cities from Chinese 31 provinces (autonomous regions and municipalities). This survey was done in four major urbanized regions--the Yangtze River Delta Region, the Pearl River Delta Region, the Bohai Rim region and the Chengdu-Chongqing region.

MODEL:

$$\ln(Wage)_{it} = \beta_0 + \beta_1 * Gender_{it} + \beta_2 * Education_{it} + \beta_3 * Age_{it} + \beta_4 * Experience_{it} + \beta_5 * training_{it} + \beta_6 * Time_{it} + \beta_7 * training * Time_{it} + \beta_8 * Dummy 1 + \beta_9 * Dummy 2 + \beta_{10} * Dummy 3 + e$$

Table 3: Variables used in the model with their description

Variable name	Variable label
Gender	Dummy variable for gender, Male=1 and female=0
Education	Years of education
AGE	Age of respondent
Experience	Years of working experience
Training	Dummy variable = 1 if the respondent participated in the job training; otherwise = 0
Time	Dummy variable = 1 if it's the time period after the job training; before = 0
Time*training	Interaction for training and time
Dummy 1	Regional dummy variable 1
Dummy 2	Regional dummy variable 2
Dummy 3	Regional dummy variable 3

Regression coefficients for the model

	Total Sample	Total Sample	Female Sample	Male Sample	Training Age<20	20<training Age<30	Training age>30
Gender	0.089 (2.78)**	0.085 (2.85)**			0.062 (1.97)*	0.09 (2.44)**	0.408 (3.83)**
Education	0.085 (13.92)**	0.089 (13.99)**	0.058 (10.03)**	0.065 (8.52)**	0.051 (6.63)**	0.066 (11.26)**	0.112 (0.78)
Age	0.008 (3.02)**	0.009 (3.40)**	0.003 (-1)	0.006 (4.08)**	0.025 (2.39)*	0.006 (0.87)	0.016 (0.97)
Experience	0.028 (5.77)**	0.038 (5.72)**	0.026 (3.99)**	0.023 (3.23)**	0.014 (1.17)	0.037 (4.19)**	-0.083 (1.54)
Training	-0.041 (-1.13)	-0.048 (-1.94)	-0.027 (-0.55)	-0.069 (-1.82)	-0.081 (1.65)	-0.089 (0.75)	-0.002 (0.01)
Time	0.323 (8.28)**	0.338 (8.18)**	0.315 (6.41)**	0.341 (6.85)**	0.342 (6.60)**	0.246 (4.47)**	0.545 (3.91)**
Time*training	0.073 (3.67)**	0.079 (3.66)**	0.046 (0.73)	0.064 (3.69)**	0.015 (3.19)**	0.048 (2.22)*	0.063 (0.41)
dummy1		0.082 (-1.85)	-0.042 (-0.66)	0.183 (3.00)**	0.188 (3.07)**	-0.005 (0.08)	-0.188 (1.18)
dummy2		0.082 (-1.4)	-0.023 (-0.35)	0.138 (1.97)*	0.124 (2.03)*	0.013 (0.21)	-0.097 (0.74)
dummy3		-0.015 (-0.34)	-0.154 (2.47)*	0.1 (1.69)	0.078 (-1.29)	-0.117 (1.89)	-0.108 (0.82)
Constant	5.865 (80.07)**	5.828 (89.95)**	6.085 (51.62)**	5.698 (49.65)**	5.542 (29.36)**	5.909 (32.58)**	5.984 (10.97)**
Observations	2040	2040	934	1106	888	1008	144

Absolute value of t statistics in parentheses
* significant at 5%; ** significant at 1%

In our regression analysis, we could find out consistently that the gender, education level and years of working experience have significant effect on off-land farmers' wage level.

The key factor that we pay more attention to is the effect of job training on the wage level. We find out that it's consistently significant in different models. The wage effect of on-the-job training varied from 4.9 per cent to 7.9 per cent. While the wage effect of education varied from 5.1 per cent to 6.6 per cent. So that we can conclude that on the job training is as important as education when we check their effect on the wage level.

Interestingly we find out that the male workers' effect on the job training is more significant and larger than female's. The possible explanation could be that female labor work on more labor intensive manufacture sector and training has less impact on the wage.

By different age groups, we find out that job training has more effect on group with age between 20 to 30 years old. The effect on this group is 4.9 per cent. While the effect on group under 20 years old is 1.3%. And the job training effect on above 30 years old group is not significant.

For off land labor under 20 years old, more possibly they will find less skill required manufacture sectors. So that job training has less effect on them. But lack education and training will negatively affect their possibility to get into well paid work position in the future.