How do Education and Skill development affect the Transition from ‘Good-enough’ Job to ‘Decent’ Job?

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Presentation Outline

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Motivation behind the present work

- Economic growth is a necessary condition for development; however, it is not sufficient (Sen, 1999).
- Moreover, employment creation does not ensure economic or political inclusions.
- The focus of policy exercises hence has been shifted from mere economic growth approach towards a broader approach of inclusive growth.
- The ILO's 'Decent Work' agenda replicates the importance of such context which has been initiated since 1999.
- However, majority of the studies those are carried out on 'decent work' primarily focused on demand side issues or viewed the whole concept either from a macro horizon or from policy perspectives.

Motivation behind the present work

- For ensuring ‘decent work’, it is mandatory to improve the ‘quality of employment’ rather than generating employment in quantity.
- As the quality of employment that a person may avail depends primarily on skill of that person, the ‘decent work’ agenda needs to be explored from the supply side.
- The composition of labor supply may itself be a determining factor for the status of ‘decent work’.
- Being inspired from this background, the present paper aspires to look for the factors that influences over the quality of employment that a person may avail.
- This article defines the quality of jobs in three categories namely ‘good-enough job’, ‘good job’ and ‘decent job’ following Raihan (2014) where the author argues that there could be three stages for moving towards ‘decent’ job.

Review of Literature

- Most of the studies on decent work, using country level macro data, primarily focused on demand side issues.
- Ghai (2003) formulated an index to measure the performances and patterns of decent work in the industrial countries in the 1990s.
- Anker *et al.* (2002) identified various statistical indicators to measure decent work in a cross country perspective.
- In the context of Bangladesh, Mujeri (2004) assessed the availability and challenges of the decent work statistical indicators for the country.
- A number of papers has identified the informal sector as the major vulnerable sector as well as the more challenged sector for the implementation of the decent work agenda in the context of developing countries (Cohen & Moodley, 2012), Amin (2002), (Ahn, 2008).

Review of Literature

- On the other hand, some studies stressed importance on the enhancement of global value chain and broader trade arrangements to promote compliance with labor standards (Polaski ,2009) , (Barrientos ,2007), (Oxfam, 2004), (Acona, 2004).

- Trebilcock (2005) suggested for addressing vulnerability/adopting social protection and ensuring representation and voice as a must to make the Decent Work agenda operational.

- Although the aforementioned papers looked primarily at the demand side issues, there is a need to consider the supply side effects too as far as the promotion of decent job is concerned.

- Indeed, for a sustainable improvement in the working condition as well as the lives of the workers there is no other alternative but to enhance the productivity of the workers through skill development.

Data, Definition and Methodology

- Labor Force Survey data of 2010 (LFS 2010) has been used.
- As the data and questions in the questionnaire of LFS (2010) are different for wage employed and self-employed, different variables are considered for these categories.
- Following Raihan (2014), in case of the wage employment, decent job is defined as a job which is permanent, has written job contract, decent working hour, decent and adequate earnings, leave, pension and termination notice.
- On the contrary, a job is 'good—enough' if he/she has at least a paid job.
- In between 'decent' job and 'good enough' job there is 'good job' which is defined as having permanent employment along with a decent earnings.
- In case of self-employment, decent job includes the criterion of decent earnings, permanent employment, and decent working hour while the definition of 'good' job and 'good-enough' job remains the same.
- To see the impacts of education and training on the quality of job that a person may avail we use multinomial logistic regression involving three categories of aforementioned job with good-enough job as the base category.

Data, Definition and Methodology

- As the coefficients of interest varies across alternatives, the appropriate model for estimation is multinomial logistic regression model. Under this model, the probability that i^{th} individual will be in j^{th} quality of job is:

$$p_{ij} = Pr[Y_i = j] = F_j(X_i, \beta_j) \qquad (2)$$

$$= \frac{e^{X_i'\beta_j}}{\sum_{l=1}^{3} e^{X_i'\beta_l}} \qquad (3)$$

- Where, $0 < Fj(X_i, \beta_j) < 1$ and $\sum_{j=1}^{3} F_i(X_i, \beta_j) = 1$ and to ensure the model identification, we impose the restriction that $\beta_1 = 0$ implying 'good-enough' job as our base category.
- Here, X_i is a vector which constitutes variables like education of the individual, training status of the individual, age, age square, family income, gender dummy, education of the household head, and land per capita owned by the household head.

Data, Definition and Methodology

- From (2) we find the likelihood function for a sample of n independent observations as

$$L_n = \prod_{i=1}^{n} \prod_{j=1}^{3} p_{ij}^{y_{ij}}$$

- Which gives us the log-likelihood function as the following:

$$L = \ln L_n = \sum_{i=1}^{n} \sum_{j=1}^{3} Y_{ij} \ln p_{ij} \qquad (5)$$

$$= \sum_{i=1}^{n} \sum_{j=1}^{3} Y_{ij} \ln \left(\frac{e^{X_i' \beta_j}}{\sum_{l=1}^{3} e^{X_i' \beta_l}} \right) \qquad (6)$$

- Now, maximizing (6) with respect to β_k we obtain the $\widehat{\beta_{MNL}}$.

Data, Definition and Methodology

Marginal Effects and Relative Risk Ratio:

- In case of MNL we see the effect of one unit change in the regressor on the probabilities of being in j^{th} quality of job as:

$$\frac{\partial p_{ij}}{\partial x_i} = p_{ij}(\beta_j - \bar{\beta}_i) \qquad (7)$$

- Where, $\bar{\beta}_i = p_{il}\beta_l$ is a probability weighted average of the β_l. It also suggests that, the sign of β_j does not necessarily suggests the sign or direction of the impact of a change in the regressor.

Comparison to the base category:

- We find the relative risk of obtaining alternative 'decent' job over alternative good-enough job is:

$$\frac{\Pr[Y_i = 'decent job']}{\Pr[Y_i = 'good-enough' job]} = e^{X_i' \beta_{decent}}$$

Data, Definition and Methodology

- For example, if the age (Let, the variable as X_2) of the person increases by 1 additional year, the ratio of the relative risks would be:

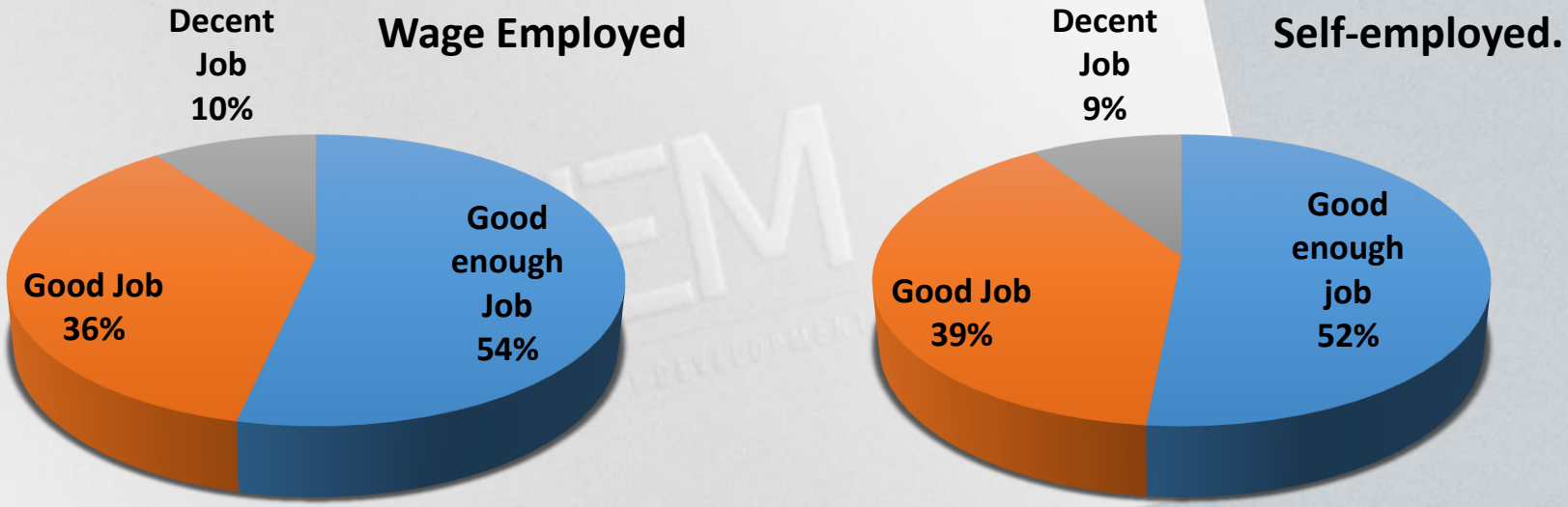
$$\frac{\frac{\Pr[Y_i = \text{'decent job'} \mid X_1, (X_2+1) \ldots X_k]}{\Pr[Y_i = \text{'good-enough job'} \mid X_1, (X_2+1) \ldots X_k]}}{\frac{\Pr[Y_i = \text{'decent job'} \mid X_1, X_2 \ldots X_k]}{\Pr[Y_i = \text{'good-enough job'} \mid X_1, X_2 \ldots X_k]}} = \frac{e^{X_1\beta^1_{decent} + (X_2+1)\beta^2_{decent} + \cdots + X_k\beta^k_{decent}}}{e^{X_1\beta^1_{decent} + X_2\beta^2_{decent} + \cdots + X_k\beta^k_{decent}}}$$

$$= e^{\beta^2_{decent}}$$

- We can interpret the result as, if the age of the individual increases by 1 additional year, compared to base category, the relative risk to be in decent job will increase by a factor of $e^{\beta^2_{decent}}$.

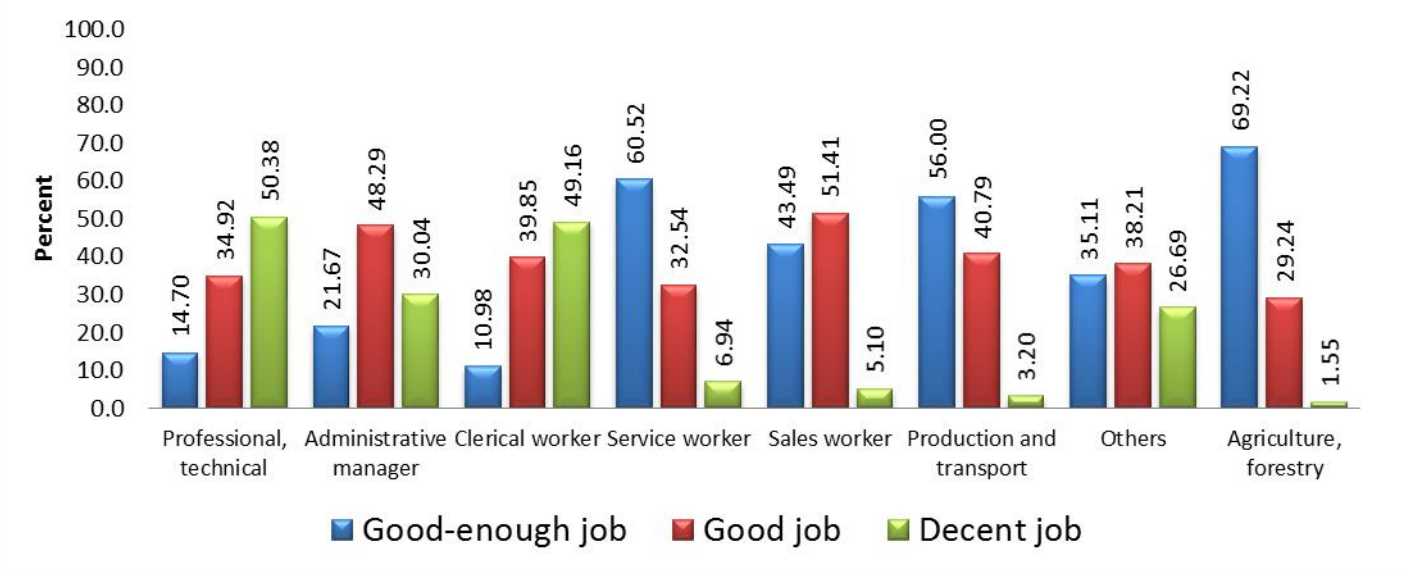
The snapshots of the labor market in Bangladesh: How does it stands in terms of quality of employment?

Figure 1: Employment categories and quality of job



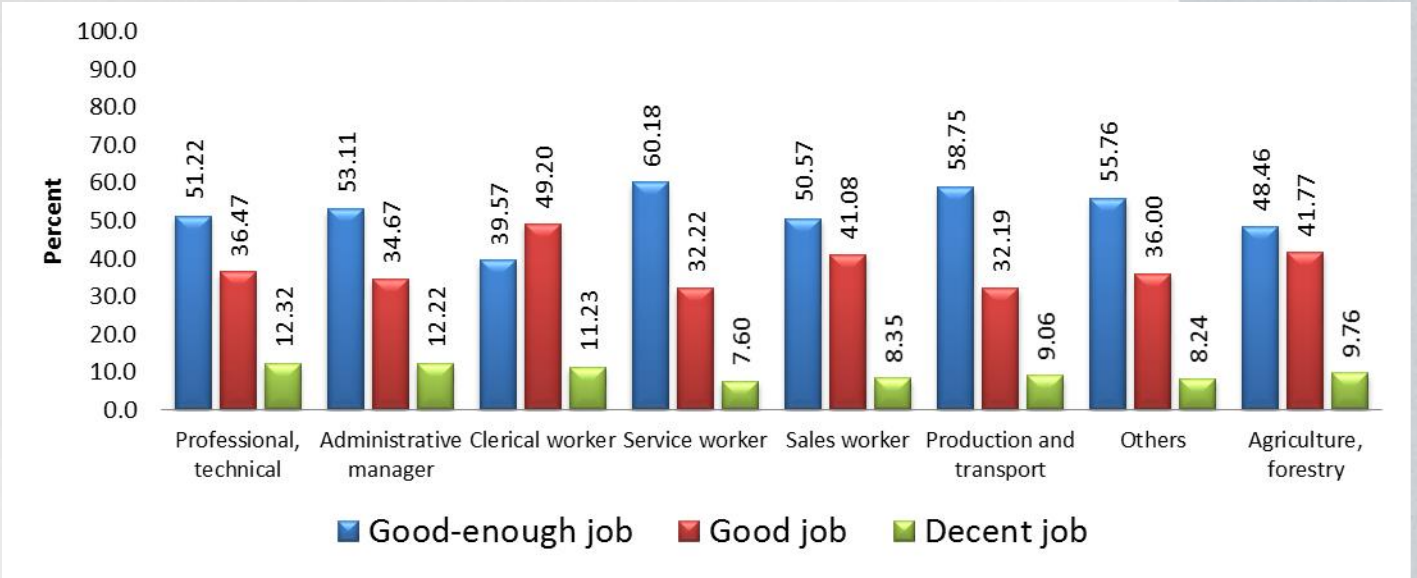
Source: Authors' calculation from the LFS, 2010

Figure 2: Distribution of wage-employed by job quality and source of employment



Source: Authors' calculation from the LFS, 2010

Figure 3: Distribution of self-employed by job quality and source of employment



Source: Authors' calculation from the LFS, 2010

Figure 4: Education and quality of job : for the wage employed

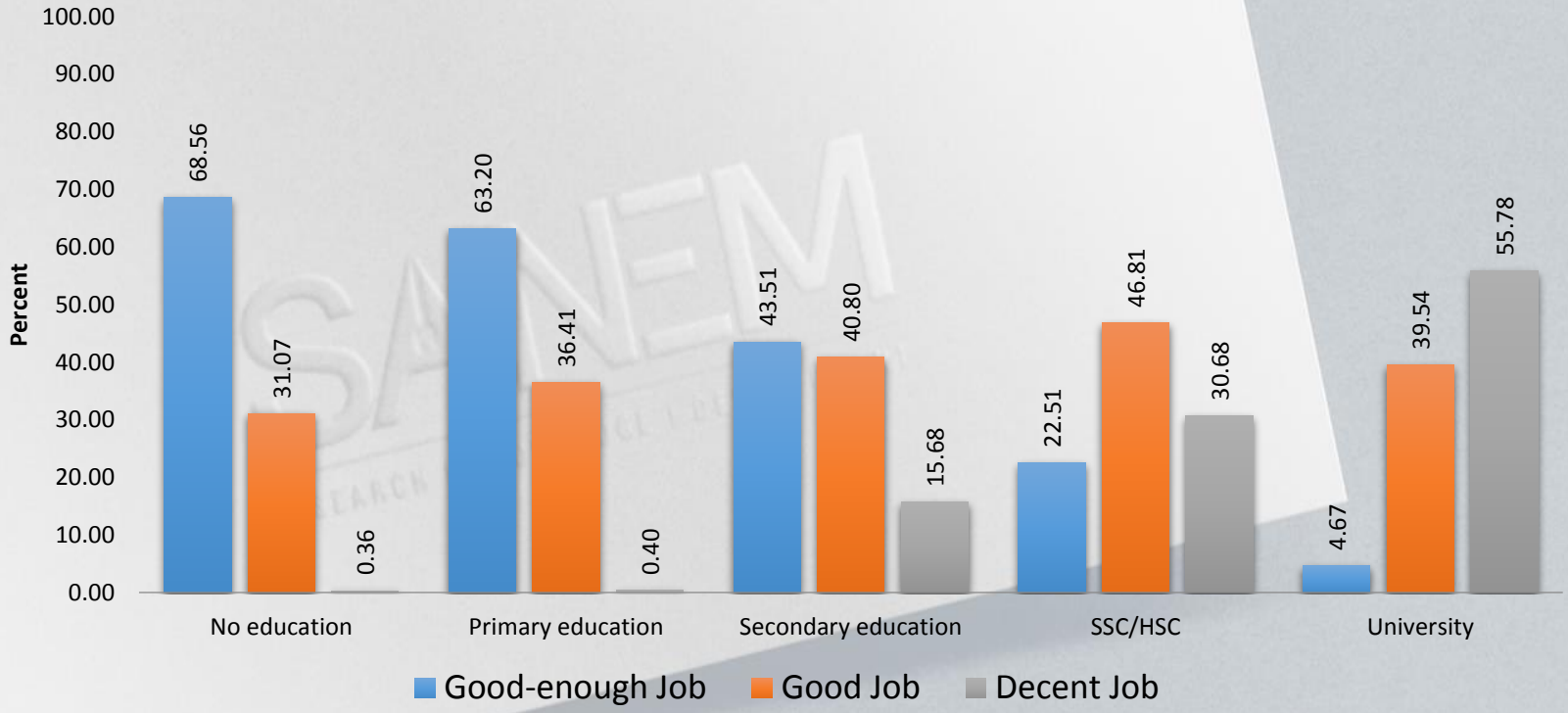


Figure 5: Education and quality of job : for the self-employed

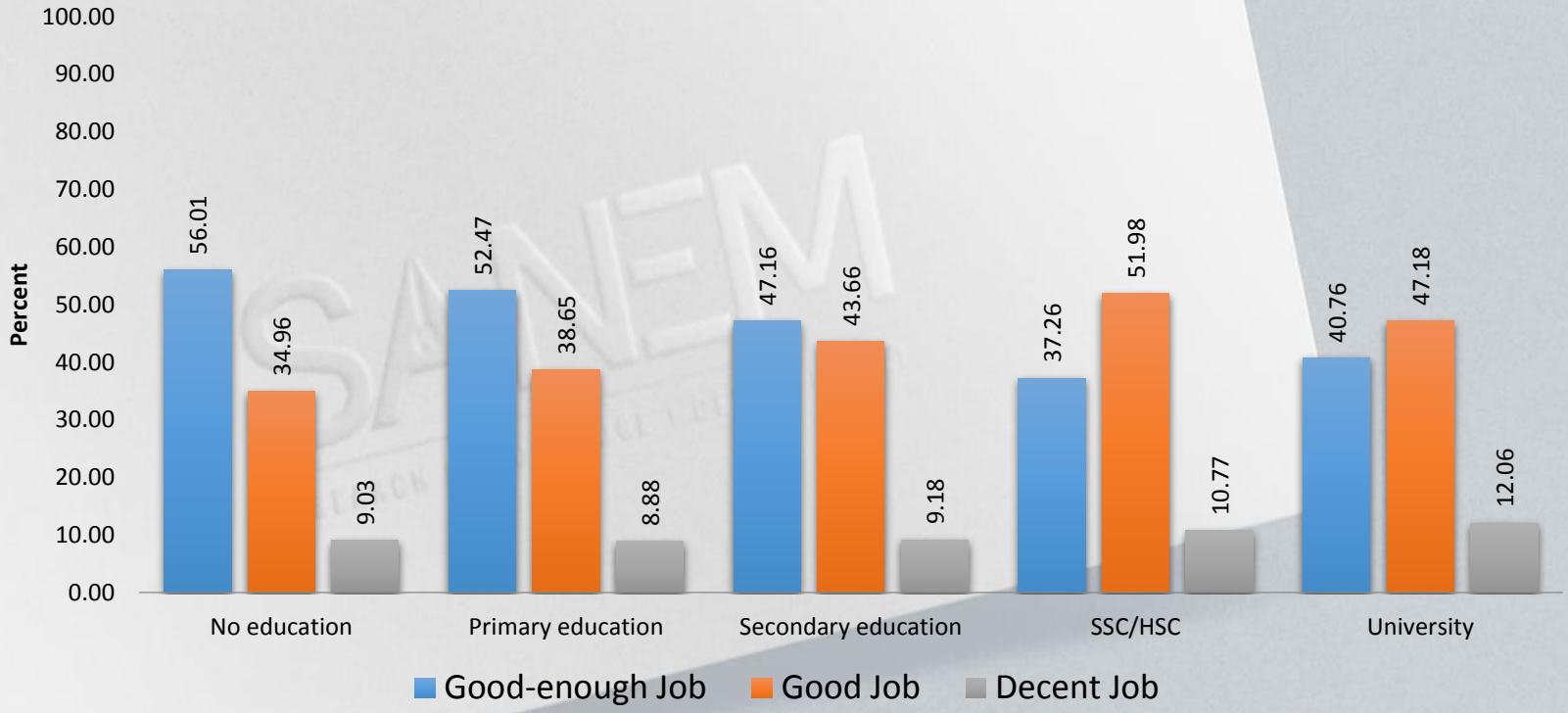


Figure 6: Training and quality of job for wage employed

Figure 7: Training and quality of job for wage employed

How do Education and Skill Matter for a Better Job? Insights from Econometric Exercises

- Primary education is found to be insignificant in changing the quality of job.
- Persons with secondary and higher secondary education have almost 20 percentage points higher probability to be in a decent job compared to persons with no-education
- Being educated in a university increases the probability to be in a good job by 18 percentage points
- It increases the probability to be in a decent job by 26 percentage points compared to the persons with no-education..

Table 1: Average marginal effects (for wage employed category)

Explanatory variables	Marginal effects for good-enough job (category 1)	Marginal effects for good job (category 2)	Marginal effects for decent job (category 3)
Primary education	0.005 (0.010)	0.020 (0.014)	-0.025 (0.016)
Secondary education	-0.079*** (0.011)	-0.110*** (0.012)	0.191*** (0.009)
SSC/ HSC	-0.160*** (0.011)	-0.032** (0.013)	0.193*** (0.009)
University education	-0.433*** (0.033)	0.174*** (0.032)	0.258*** (0.011)
Age	-0.020*** (0.001)	0.011*** (0.001)	0.0094*** (0.001)
Age squared	0.0002*** (0.000)	-0.0001*** (0.000)	-0.0001*** (0.000)
Family income	-0.219*** (0.003)	0.185*** (0.004)	0.034*** (0.002)
Female dummy	0.083*** (0.007)	-0.117*** (0.008)	0.033*** (0.004)
Training dummy	-0.066*** (0.010)	0.034*** (0.010)	0.032*** (0.003)
Household head with primary education	-0.023** (0.009)	0.023** (0.010)	0.0001 (0.008)
Household head with secondary education	-0.082*** (0.011)	0.054*** (0.012)	0.028*** (0.006)
Household head with SSC/HSC	-0.091*** (0.012)	0.064*** (0.013)	0.027*** (0.006)
Household head with university education	-0.028 (0.031)	-0.003 (0.029)	0.031*** (0.008)
Land holding	-0.0004*** (0.000)	0.0002* (0.0001)	0.0002*** (0.000)

Note: ***, ** and * indicate statistical significance at the 1, 5 and 10 percent levels respectively. The figures in parentheses are the standard errors.

Table 2: The result of multinomial logit regression in case of wage employment (in terms of RRR)

Explanatory variables	Category (base category : Good-enough job)	
	Category 2 (Good job)	Category 3 (Decent job)
Primary education	1.016 (0.052)	0.667 (0.174)
Secondary education	1.105 (0.067)	23.245*** (3.628)
SSC/ HSC	1.722*** (0.113)	32.701*** (5.229)
University education	6.959*** (1.278)	241.06*** (57.132)
Age	1.100*** (0.006)	1.241*** (0.016)
Age squared	0.998*** (0.0001)	0.997*** (0.0001)
Family income	3.182**** (0.078)	3.791*** (0.162)
Female dummy	0.592*** (0.026)	1.204** (0.092)
Training dummy	1.364*** (0.075)	2.076*** (0.149)
Household head with primary education	1.138*** (0.057)	1.093 (0.147)
Household head with secondary education	1.501*** (0.097)	2.078*** (0.236)
Household head with SSC/HSC	1.580*** (0.109)	2.128*** (0.247)
Household head with university education	1.105 (0.187)	1.788*** (0.353)
Land holding	1.001*** (0.001)	1.004*** (0.001)
Constant	.00001*** (3.11e-06)	2.71e-09*** (1.27e-09)
Number of observations	26417	
LR chi2(28)	11373.92	
Prob > chi2	0.0000	
Pseudo R2	0.2305	

Note: ***, ** and * indicate statistical significance at the 1, 5 and 10 percent levels respectively. The figures in parentheses are the standard errors.

Interpretation of Table 2:

- RRR is significant for all other levels of education except primary education.
- For a person with secondary education relative to no education, the relative risk (RR) for decent job compared to good-enough job would be expected to increase by a factor of 23.2.
- The RR for decent job relative to good-enough job would increase by a factor of 32.7 and 241.1 for attainment of higher secondary and university education respectively compared to the no education category holding all other things constant.
- Although small in magnitude, training does have a highly significant impact.
- For persons with training in comparison to persons without training, the relative risk for having a decent job compared to good-enough job would increase by a factor of 2.1 holding all other variables constant.

- The variables related to household head are dropped, as self-employed persons are pre-dominantly household heads.
- Persons with secondary or higher secondary education have more than 4 percentage points higher probability of having a good job compared to no-education category.
- The data suggests no significant impact of university education over the attainment of good job or decent job.
- A possible explanation of the insignificance of the variables like University education or trainining could be that, only a very low percentage of people in the self-employed category participated in any training program (only about 4 percent) or had university degree (2.24 percent) in the LFS 2010 data.

Table 3: Average marginal effects (for self-employed category)

Explanatory variables	Marginal effects for good-enough job (category 1)	Marginal effects for good job (category 2)	Marginal effects for decent job (category 3)
Primary education	-0.012* (0.006)	0.02** (0.006)	-0.008* (0.004)
Secondary education	-0.028*** (0.008)	0.038*** (0.008)	-0.01* (0.005)
SSC/ HSC	-0.065*** (0.008)	0.070*** (0.008)	-0.0053 (0.005)
University education	-0.002 (0.018)	0.002 (0.018)	0.0002 (0.010)
Age	-0.006*** (0.001)	0.007*** (0.001)	-0.0011* (0.001)
Age squared	0.00003** (0.00001)	-0.0001*** (0.000)	0.0000** (0.000)
Family income	-0.136*** (0.004)	0.112*** (0.004)	0.0240*** (0.002)
Female dummy	0.496*** (0.007)	-0.393*** (0.009)	-0.1038*** (0.007)
Training dummy	0.0003 (0.012)	-0.001 (0.012)	0.001 (0.007)
Land holding	-0.0007*** (0.000)	0.001*** (0.000)	0.0001*** (0.000)

Note: ***, ** and * indicate statistical significance at the 1, 5 and 10 percent levels respectively. The figures in parentheses are the standard errors.

Table 4: The result of multinomial logit regression in case of self-employment (in terms of RRR)

Explanatory variables	Category (base category : Good-enough job)	
	Category 2 (Good job)	Category 3 (Decent job)
Primary education	1.089** (0.037)	0.950 (0.052)
Secondary education	1.192*** (0.053)	0.974 (0.070)
SSC/ HSC	1.435*** (0.059)	1.128* (0 .073)
University education	1.010 (0.096)	1.007 (0.141)
Age	1.037*** (0.005)	1.005 (0.008)
Age squared	0.999 *** (0.000)	1.000 (0.000)
Family income	1.947 *** (0.043)	1.886*** (0.064)
Female dummy	0.0921*** (0.004)	0.083*** (0.007)
Training dummy	0.996 (0.065)	1.008 (0.103)
Land holding	1.003*** (0.000)	1.003*** (0.000)
Constant	0.002*** (0.000)	0.001*** (0.000)
Number of observations	29196	
LR chi2(20)	5576.89	
Prob > chi2	0.0000	
Pseudo R2	0.1028	

Note: ***, ** and * indicate statistical significance at the 1, 5 and 10 percent levels respectively. The figures in parentheses are the standard errors.

Interpretation of Table 4:

- We find that, having primary education compared to no-education improves the Relative Risk (RR) to be in good job compared to good-enough job.
- However, it doesn’t have any significance with respect to decent job.
- On top of that, having secondary or higher secondary education compared to no education increases the RR for good job compared to good-enough job by more than a factor of 1.2.
- However, impacts of university education and training were found to be insignificant in case of RRR.
- Among other variables, Family income and Land holding are found to be significant in case of transforming a person from good-enough job to good job or to decent job.
- That is, household asset distribution is an important factor in case of generating decent work for the self-employed individuals.

Conclusion and Policy Recommendations:

- Today's world is equally concerned, if not more, with the quality of employment rather than improvement in numbers.
- It is pertinent that, even if we initiate improvements at the demand side, there could be a supply side mismatch intermitting the overall effectiveness of the demand side policies.
- Education and training have highly significant impacts over the quality of employment that a person may avail.
- The transition takes place in the form of productivity enhancement.

Conclusion and Policy Recommendations:

- The importance of the productivity enhancement is that, even if we can generate terms and conditions for employing ‘decent work’ agenda in practice, the workers may themselves lack the quality to be absorbed in the transformation process due to their lower productivity.
- Productivity enhancement will create ‘decent job’ benefits to the households at the individual level as well as it will also accelerate the process of transformation at the social level.
- Therefore, supply side policies should be adopted like:
  - spreading education and skill development programs to the mass population,
  - removing socio-economic barriers those have converse impacts over education attainment,
  - and enhancing the diversity of training programs taking into consideration of the domestic as well as global labor market demands

Conclusion and Policy Recommendations:

- Most importantly, to ensure the proper escalation of labor productivity – emphasis must be put on the improvement of the quality of education and training as well.
- A prompt response from the government incorporating various development agencies and international donors will fasten the process of recognition of the problems, identification of the strategies and implementation of the policies.