

Study of Minimum Wage, Level of Education, Employment Opportunity, and Unemployment Educated: Empirical Study in Padang

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Abstract

Unemployment may occur as a result of the high rate of change in the labor force that is not offset by sufficient jobs and labor absorption that a little, which is due to the low rate of growth in job creation to accommodate workers who are ready to work. In other words, in the labor market, the number of labor supply is higher than the amount of labor demand. This article analyzes the effect of the minimum wage, education, and employment opportunity toward unemployed educated in the city of Padang. The data used is secondary data obtained from the BPS, Padang dalam angka, Susenas, and other institutions that are linked from 2001 - 2015. Data were analyzed using multiple regression models with SPSS data processing. And this model is free from classical assumptions. The results obtained showed that the level of education that is reflected by graduates of bachelor significantly and positively affect the level of educated unemployment, means if more and more of labor force who successfully completed their education, so the educated unemployment is increasing. The minimum wage is a significant and negative effect on unemployment of educated, meaning that if minimum wage is high, the unemployment lower. While employment opportunity has no significant effect.

Keywords: labor force, unemployment educated, minimum wage, level of education, employment opportunity

Introduction

Unemployment is a situation where a person who included the labor force wants to get a job but they have not been able to obtain the job (Erni Febrina, 2017). While the educated unemployed is someone who has passed the education and want to get a job but cannot get it. Unemployment educated usually from upper-income groups that allow their guaranteed survival although unemployed. unemployment educated in the city of Padang showed a fluctuating and tends to increase in the years 2012-2015, and showed a drastic decline in 2001 to 2002. This is very encouraging, but implies a question mark to know how the reality of the situation (Table 1). Educated unemployment be related with problems of education in developing countries in general, among others revolves around the issue of quality of education, the readiness of educators, facilities and public opinion. In developing societies, education prepared as a means of enhancing welfare through the utilization of available job opportunities.

The main causes of educated unemployment is educational development unplanned and development of jobs that do not correspond with their majors, so that the graduates are not absorbed into the existing employment. In fact educational institutions in Indonesia only produces job seekers is not the creator of the work (Prasetyadewi, 2013). Meanwhile, according to BPS (2008) that the rate of unemployment is a measure that indicates how much of the total labor force who are actively looking for a job.

Table 1
The Number of Educated Unemployment in City of Padang In 2001-2015

Year	Unemployment Educated (Person)	Unemployment Educated (%)
2001	20117	-
2002	13427	-43.86
2003	15074	10.92
2004	27748	45.67
2005	27091	-2.42
2006	49235	46.88
2007	45030	36.34
2008	46513	3.18
2009	36673	-26.83
2010	34853	-4.96
2011	25260	-27.52
2012	24862	-1.57
2013	35288	41.91
2014	29932	-15.17
2015	48330	38.06

Source : BPS and Susenas (2001-2015)

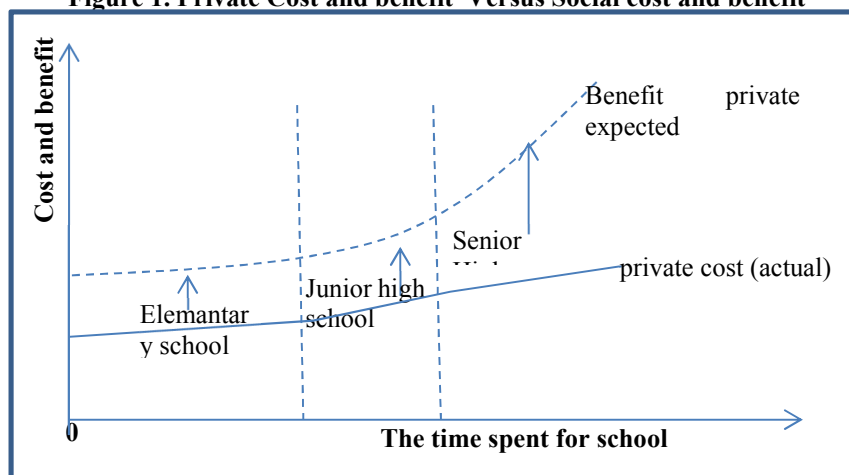
One alternative being done to reduce unemployment is to improve the quality of human resources by improving education, the provincial minimum wage policy and employment opportunity. The many negative effects of unemployment such as increased crime in each area, that encourage the region to improve the education of its citizens both formal and informal education. A good education is expected to produce good human resources as well. But in reality today, education is also considered to be closely related to unemployment, especially unemployment of educated labor. There is tendency for the increasing levels of education will result in increased unemployment educated labor force rather than an increase in labor productivity which has an accordance productivity with the needs of the working world.

Materials and Method

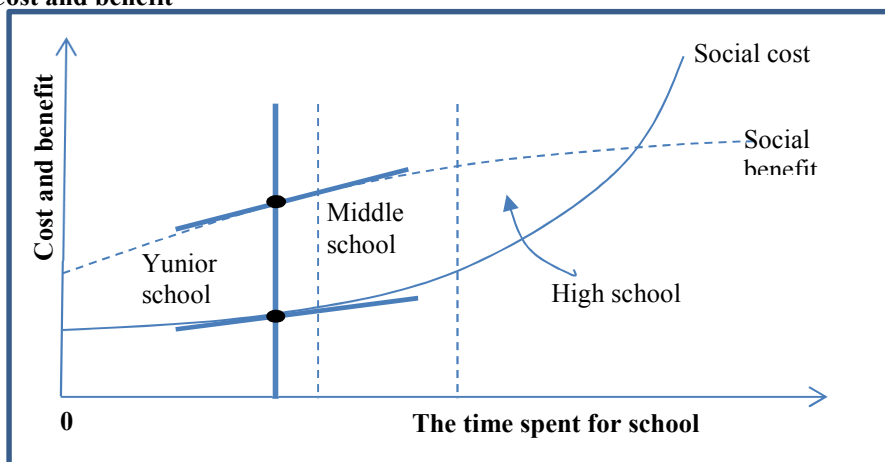
Unemployment educated in developing countries are generally in young age and educated, and tend to be more concentrated in cities than in villages. They are mostly workers who just completed his education and is waiting to get a job that matches their aspirations. During the wait for the desired job, their living costs are borne by the family are relatively rich. This implies that the unemployment problem in developing countries is less related to poverty.

However the cost of attending higher education also benefits both personally and socially. In developing countries in general, social cost and educational costs are increasing rapidly due to the increasing number of students wishing to pursue higher education. Social cost is an opportunity cost which is ready to be paid by the public to finance the expansion of higher education is expensive with funds that may become more productive when used in other economic sectors. The private costs of education is cost must be borne by the students and their own family that will actually increase in more slowly or even may be decreased. Figure 1 illustrates the widening gap between social costs and social benefits versus individual cost and benefits. Where Figure 1a shows that the higher the education level of a person, the higher the expected income that is greater than the private rate of return to investment in education so as to seek education as high as possible.

Figure 1. Private Cost and benefit Versus Social cost and benefit



1.a. Private Cost and benefit



1.b Social cost and benefit

Figure 1b shows that social benefit curve is sharply upward early, which means an improvement in

productivity levels. Then social cost curve grows slowly, but after basic education, social costs are rising rapidly which indicating the cost in the college is very expensive. This illustrates that there is an inherent conflict between these two strategies.

Education reflects the level of intelligence or skill that I owned, where the higher one's education, the higher the ability to work or one's productivity at work. Improving the quality of human resources through education graduates is expected to reduce the unemployment rate, assuming the availability of employment opportunity. In general, to work in prestigious place require people with a qualified workforce, professional and intelligent so as to carry out tasks effectively and efficiently (Sipahutar, 2016).

Workforce educated generally have higher labor productivity than non-educated workforce. Labor productivity are basically reflected in the wage rate, for each job opening is generally always associated with education level requirements for candidates who will fill it. The supply of educated labor force must go through the school system a long time, therefore, the elasticity of supply of educated workers usually smaller than the supply of uneducated workers.

The participation rate of skilled manpower higher than uneducated workforce. Educated workers typically come from families more affluent, who send their children to study undergraduate program (S1). The otherwise the labor of poor families generally can not afford to continue their education and are forced to seek employment after completing basic or secondary education (Sipahutar, 2016). The basic assumption of human capital theory is that a person can increase their incomes by improving education, every additional of school one year, on the one hand improve the work ability and the level of a person's income, but on the other hand delayed acceptance of the income for a year because attend the school and wished to increase revenue by improving education (Simanjuntak, 2001).

One of the factors that influence unemployment is wages. Wages is a problem that is quite interesting because most of the existing unemployed prefer to work in the informal sector to make ends meet (although still looking for a job with better wages), rather than be forced to work in the formal sector at minimum wage. So it does not mean jobs are not available, but information from the employment opportunity is a little so it is difficult to find a job with wages appropriate even though an understanding of the appropriate wage is relative to current needs (Osinibi, 2005).

The relationship between wage to unemployment expressed by Bruce E Kauffman and Julie L Hotckchkiss (2013), Agustina Chandra Dewi (2010) problem that touches directly the workers is the low income earned, which is not in accordance with subsistence. The necessities of life is increasing, while the wages received little or under the Provincial Minimum Wage (UMP).

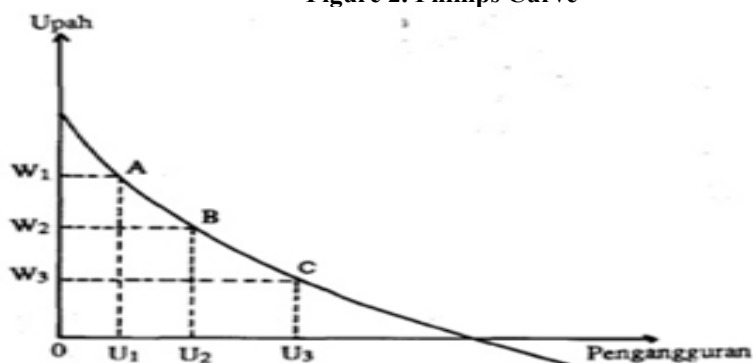
The wage rate is an important element affect the lives of workers due to wage a source of income to meet the needs of workers and their families living either in the form of clothing, food, housing and other needs. If wages are set in an area is too low it will result in higher unemployment in the region (Aurangzeb and Kholo, 2013).

The minimum wage is an acceptance of the lowest monthly from entrepreneurs who are given to employees for employment or services that have been or done or declared or assessed in money terms are set on the basis of an agreement or legislation and are paid on the basis of a agreements between employers and employees including benefits, both employees and their families. Provincial Minimum Wage (UMP) is the minimum wage that applies to all regencies / cities of a province. The minimum wage is set annually by the Governor upon the recommendation of the Commission and the Social Security Wage Research Council of Local Employment (now the Provincial Wage Council).

The Phillips curve illustrates the character of the relationship between the rate of wage increase with the unemployment rate, or between the price level to the level of unemployment, proposed in 1958 by A.W. Phillips, who at the time was a professor at the London School of Economics, published a study on the characteristics of changes in the level of wages in the UK. The study looked at the nature of the relationship between the unemployment rate and rising wages. The conclusion of the study is: there is a negative correlation properties (reversed) between rising wages with unemployment rate. On when the unemployment rate is high, the percentage increase in the wage rate is low and if the unemployment rate is low, the percentage increase in the wage rate is high (Phillips, 1958 cit Mankiw, 2011).

Employment opportunities is a situation where all workers who want to work at a certain wage level will easily get employment. Meanwhile, according to (Sumarsono, 2003) defines that employment is employment that is already occupied (employment) and there are still vacancies.

Figure 2. Phillips Curve



The large population resulted in less employment opportunities. The amount big of population with the ability can increase productivity and create new jobs, but if the large number of people who have not skills and ability can inhibit employment opportunities and can be cause unemployment. The population that many are not accompanied by enough employment opportunities will cause a lot of people who are not accommodated in the work world or jobless.

Model of multiple linear regression equation is as follows:

$$UE = \alpha + b_1W + b_2G + b_3EO + e$$

Where:

- UE = Unemployment Educated (person)
- MW = Minimum Wage (Rupiah)
- G = Graduation
- EO = Employment Opportunity
- α = Constanta (Y if $X_1, X_2, X_3 = 0$)
- b = Coefficient regression
- e = error term

Meanwhile, to measure the elasticity of dependent variable on the independent variable is to show the percentage change in the independent variable, then formed logarithm as follows:

$$\text{Log UE} = \alpha + b_1 \log W + b_2 \log G + b_3 \log EO + e$$

Where : Log UE = Elasticity of Educated Unemployment

- α = Constant
- b1 = Elasticity of Provincial Minimum Wage
- W = Minimum Wage
- b2 = Elasticity of Education Graduate degree
- G = Education Graduates
- b3 = Elasticity of Employment Opportunities
- EO = Employment Opportunity
- e = Error term

Result and Discussion

Before the regression analysis, it first has performed classical assumption. Where the overall of model of this free from the problems of the classical assumption test, such as

Table 2 Result of Normality Test

Jarque-Bera	2.264261
Probability	0,322346

Source : From Analysis with Eviews 8

From analysis obtained probability value of 0.32, indicating that the probability > alpha, that is $0.32 > 0.05$, meaning that the data contained in this study normal distribution. Furthermore, the multicollinearity test, its results showed the following:

Table 3 Result of Multikolinearity Test

	LG	LW	LEO
LG	1.000000	-0.009516	-0.587734
LW	-0.009517	1.000000	-0.185531
LEO	-0.588734	-0.185531	1.000000

Source: From analysis with Eviews 8

Based on the results of this Multicollinearity test, it can be seen that the correlation coefficient (r) is smaller

than 0.80 (Coefficient and Correlation <0.80) whereas Rule of Thumbs said problem of multicollinearity occurs when the coefficient between independent variables greater than 0.80. So with this we can concluded that all independent variables used in this study has been free from multicollinearity problems.

Table 4
Result of Heteroskedasticity Test

Heteroskedasticity Test: *White*

F-statistic	1.519374	Prob. F(3,11)	0.3360
Obs*R-squared	10.98380	Prob. Chi-Square(3)	0.2768
Scaled explained SS	7.426975	42	0.5928

Source : From Analysis with Eviews 8

In Table 4 above shows if the probability > 0.05 then H0 is accepted and Ha rejected, but if the probability < 0.05 then H0 rejected and Ha accepted. On the table shows that the probability obs * R-squared produced is 0.27. These results indicate that the probability value 0.27 > 0.05 so that it can be concluded that all the variables that formed in the regression model has been free of symptoms heteroskedastisitas.

Based on the results of autocorrelation test that has been done shows that the value of DW generated 1.804528, this indicates that the value of the coefficient DW has in between -2 < 1.804 < 2 so that it can be concluded that in this study did not happen autocorrelation is negative or positive

Table 5 Result of Autocorrelation Test

Durbin-Watson stat	1.804528
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Source : From Analysis with Eviews 8

Further analysis can be performed multiple linear regression model with the results:

Dependent Variable: LUE

Method: Least Squares

Date: 03/21/17 Time: 10:21

Sample: 2001 2015

Included observations: 15

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.187613	4.882954	1.062392	0.3108
LG	1.384355	0.268100	5.163575	0.0003
LW	-0.646271	0.179356	-3.603281	0.0041
LEO	0.053284	0.230648	0.231021	0.8215
R-squared	0.831295	Mean dependent var		10.70529
Adjusted R-squared	0.785285	S.D. dependent var		0.757944
S.E. of regression	0.351211	Akaike info criterion		0.968320
Sum squared resid	1.356842	Schwarz criterion		1.157133
Log likelihood	-3.262399	Hannan-Quinn criter.		0.966309
F-statistic	18.06757	Durbin-Watson stat		1.804528
Prob (F-statistic)	0.000147			

Can be formed into a multiple linear regression model as follows:

$$LUE = C + LG - LW + LEO + e$$

$$LUE = 5.187613 + 1.384355 LG - 0.646271 LW + 0.053284 LEO + e$$

From the regression results above were Obtained by 5.187613 constant value that indicates if the independent variable Graduate degree, wage, and employment opportunity is zero then unemployed educated amounted to 5.187613. From regression coefficients obtained variable of Graduate degree positive value of 1.384355 pales education graduates rose by 1 percent, the number of unemployed educated in Padang City will increase by 1.384355 percent. This means that the higher the level of education graduates tend to increase the educated unemployed in the city of Padang with assumption of ceteris paribus. Where the high level of bachelor graduates was not followed for employment opportunity. Furthermore, the results of the regression coefficient is negative minimum provincial wage of -0.646271, meaning that if the minimum wage increased by 100 rupiah, the number of educated unemployment fell by 0.646271. If wages are set in an area is too low it will result in high levels of unemployment that occurred in the area. And the results of regression coefficient of Employment opportunity positive value 0.053284, meaning that if employment opportunity rose by 1 percent, the educated unemployment rose by 0.053284. This means that the high employment opportunity tends to increase the educated unemployed in the city of Padang with assumption of ceteris paribus. This occurs because there is employment opportunities

that unwanted of graduate, so do not reduce unemployment educated, even increase it. For these variables showed significant results, which means that unemployed educated in Padang city can not be absorbed by the employment opportunities available.

Conclusion

The results of this study can be concluded that variable of minimum wages and education levels have a significant effect on the unemployment rate of educated, where the level of education that is represented by graduate bachelor positive sign which means that if graduates increases, the rate of educated unemployment will increase. As well as wages have opposite direction (negative slop) which means that if the minimum wage increases, the rate of educated unemployment will be reduced. While variable of employment opportunity showed insignificant results, which means employment in Padang city can not absorb the educated unemployment rate in the city.

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