IMPACT OF EDUCATION TO HEAD OF HOUSEHOLD IN INDONESIA

Maudytia Rismalasari Prabowo[1*], Dominicus Savio Priyarsono[2], and Mutiara Probokawuryan[3]

[1,2,3] Institut Pertanian Bogor, Bogor, Indonesia

Abstract

Poverty is one of the most crucial problems in Indonesia which is the fifth city in South-East Asia, have a poverty line around 11.2% in 2014 (BPS 2016). Moreover, poverty in Indonesia has decreased slowly from 2000 (19.1%) until 2016 (10.9%) (Smeru, 2015). It means poverty in Indonesia should be accelerated the decline. One of the things that can reduce poverty is education (Gounder and Xing 2012). Education has a relationship with household consumption per capita. That means, the higher the education of household head, the higher the consumption per capita that household get. The aim of this study is to analyze the impact of education on poverty as measured by household's consumption in West Indonesia in 2014. This study uses Two-Stage Least Square (2SLS) methods with cross-section data and obtained from IFLS (Indonesia Family Life Survey). The result shows that there is a relationship between education and other independent variables on poverty. The independent variables that significantly affect poverty are age, age squared, gender, and marital status. The implication of this study is education can increase the number of consumption per capita so that the living standard will increase and poverty will decrease.

***JEL Classification:** I20, I21, I25*

Keywords: *consumption per capita, cross section, education, Two Stage Least Square, poverty.*

1.   INTRODUCTION

Poverty is one of the crucial problems in Indonesia. The comparison with other countries in South-East Asia that Indonesia is the fifth city that has the biggest number of poverty, after Kamboja, is about 11.2 percent in 2014 (BPS, 2016). The important thing of poverty's problem is also contained the first goal of Sustainable Development Goals (SDGs) ends up the poverty. Moreover, Rencana Pembangunan Jangka Menengah Nasional (RPJMN) 2015-2019 in Indonesia which targetted 7-8 percent, have to decrease the poverty in Indonesia.

Poverty can measure with some points, for example, living standard. According to BPS (2005) in Rahman (2009), poor people are when their living standard is low. The living standard can measure the spending or household's consumption. The lower household consumption, the lower living standard they get and vulnerable to the poverty. Household consumption chose because it can describe the poverty condition (Rolleston, 2011).

Nowadays, the development of poor people has an increasing trend from 2012 until 2015 (BPS, 2016). Moreover, urban and rural areas are also has a different number of poor people where the rural areas have an increasing

---

number every year. This shows that there's a household's limitation to get their living standard, for example, consumption, wage, job, and education. It means poverty can describe as an inability to fulfill their living standard (BPS 2017). Therefore, this research uses the head of household's consumption to identify the poverty and describe their living standards condition.

One of the factors that increase the living standard or quartile revenue is education (Gounder and Xing 2012). This indicates that educational attainment can affect the income and play a role to cut off the vicious circle. However, some researcher showed that poverty is inversely proportional to education. According to BPS (2016), the biggest educational attainment in Indonesia is elementary school's graduated. The government in Indonesia is also has a 12 years education program to support education in Indonesia so that senior high school's graduated increased in 2012 (Figure 1).
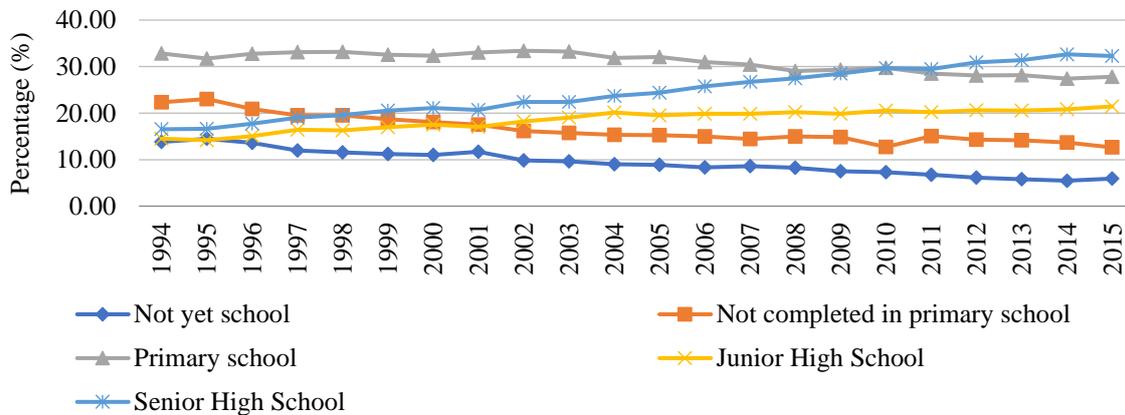
Figure 1 Educational attainment in 1994-2015 (in percent)
Source : Badan Pusat Statistik (2016), processed

In rural areas, educational attainment is lower than urban areas (Figure 2). Educational attainment in rural areas is just 7 years, meanwhile in urban areas is 9 years. This suggests that the lower living standard of poor people still limit them to access the education. One of this inequality factors is the low access to get the education in some areas. If the education in rural areas is low, it will have an impact on the type of job which dominates at the fields of agriculture, that have a lower living standard and vicious circle will occur.
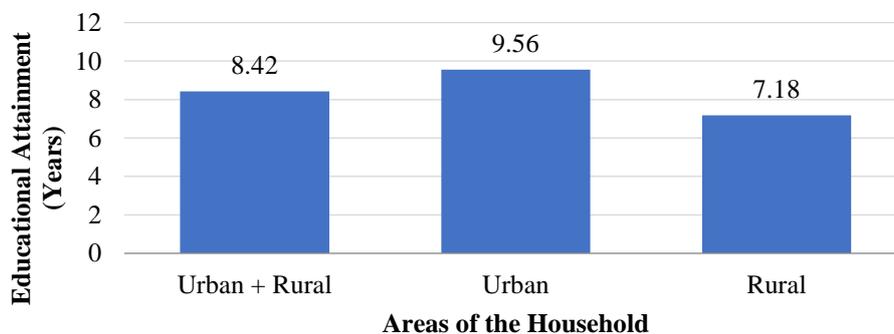
Figure 2 Educational attainment in average according to the areas of residence in 2016 (in years)
Source : Badan Pusat Statistik, 2016

Pearson (2017) did a survey about the education's rank in 40 countries. The result was Indonesia reached 40th ranked in terms of education. This suggests that education in Indonesia still relatively low. This low educational attainment is also affected by their household's living standard in Indonesia (Wuryandari, 2015).

On the other hand, Indonesia's government have a program to increase the education's access that showed in the RPJPN (Rencana Pembangunan Jangka Panjang) 2005-2025, RPJMN (Rencana Pembangunan Jangka Menengah Nasional) 2015-2019, RKPT (Rencana Kerja Program Tahunan) and Nawa Cita. Not only within the scope of Indonesia, the United Nations also have a target of developing countries around the world, called Sustainable Development Goals (SDGs) with the 4th goals is about quality and equitable education.

The scope of this research is West Indonesia. The reason for determining this scope, because of the bigger number of household every year in West Indonesia than the East. According to the data (BPS, 2016), the number of population in 2016 is 197,757 thousand people in West Indonesia, meanwhile in East Indonesia is about 73,730 thousand people. This higher number of the population make a number of poor people are bigger than East Indonesia.

According to the problem in the background, the formulations of this research are :
1. How's the general description of the characteristic of household according to education and living standard in West Indonesia?
2. How's the impact and characteristic of the household to the living standard?

According to the title, background, and formula, the aims of this research are :
1. To describe the general description of the characteristic of household according to education and living standard in West Indonesia.
2. To analyze the impact of education and characteristic of the household to living standard.

2. LITERATURE STUDY
Mincerian's Theory

Mincerian's theory is the function model that used in many studies to estimate the effect of the investment on human capital for increasing the income. This theory explained the effect of educational attainment and experience to income that they get. The function of Mincerian's theory is:

$$\ln Y = \beta_0 + \beta_1 S + \beta_2 t + \beta_3 t^2 + \varepsilon$$

Where,
Y = Income in level of education (s) and experience's year (t)
S = Educational Attainment
t = Experience
t^2 = Quadratic of Education
ε = Error
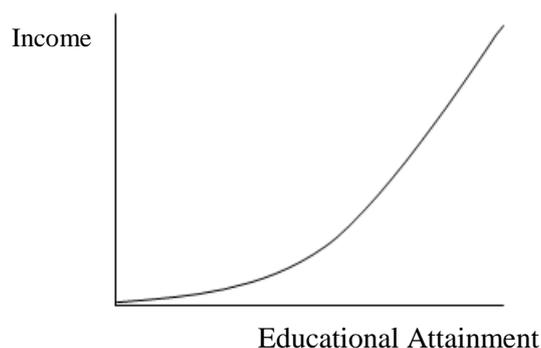
Figure 3 Correlation between educational attainment with income
Source : Bunzel (2008)

In Figure 3, there's a correlation between human capital's investment (educational attainment) with income distribution. Educational attainment and income distribution have a curve that drops from the top right to the left. This show, a higher educational attainment of the head of household, a higher income that they get.

Education

Education is one of part of human capital which affects the economic growth and decreases the poverty. According to Todaro and Smith (2006), education is the main thing to reach a satisfactory and precious livelihood. A higher education that they get, it will increase their income from the educational outcomes. It will also affect the country aggregately and individually to get the income from their educational outcomes. Education will give some information to decide what's good or no to their life.

Todaro and Smith (2006) said that a lower education cause by education's facilitation. Educations facilitation in some developing country is still low. This seems in the less curriculum and inadequate. Otherwise, most of the government budget allocates to education.

Duration of education can measure the availability of one's educational access. The measure of educational attainment in this research is based on the constitution of UU No. 2/1989 about the national education system and education level in Indonesia. First, if educational attainment to finish the elementary school (SD) for 6 years, the total time taken is 6 years. Second, if educational attainment to finish the junior high school (SMP) for 3 years, the total time taken is 9 years. Third, if educational attainment to finish the senior high school (SMA) for 3 years, the total time is taken in 12 years. Same as for diploma 1 for 1 year, diploma 2 for 2 years and diploma 3 for 3 years. Next, for undergraduate for minimum 4 years, for master minimum 2 years, and doctoral for 2 years.

Living Standard Theory

Todaro and Smith (2006) said that the low level of income or occurrence the poverty means their living standard is also low. The living standard often involves the inadequate housing, poor health, the low education, high infant mortality, low life expectancy, low employment opportunities, and in general

experience powerlessness. It means, the condition of living standard always indicate the household condition in poverty.

According to BPS (2005) in Rahman (2009), living standard is the level of ability to fulfill their livelihood. In this case, living standard as an important need to fulfill their livelihoods, such as consumption or social needs (Esmara 2004). Economics condition in a household can also be seen as a living standard. This indicates that good or not the economic condition in a household can be measured with the living standard. If a household can fulfill their needs, it means that living standard will increase and have a good economic condition.

Poverty

Poverty always identified on the economics side to fulfill their basic needs as food and non-food through household expenses (BPS 2015). According to Bappenas in BPS (2016), poverty is a condition of someone or a group that unable to fulfill their basic needs to maintain and develop the livelihood. The basic right that needs to be complete such as food, health, education, employment, housing, clean water, land, natural resources and the environment. Poverty is also the complex problem and multidimensional. Not only from economics side, but poverty can be seen from social and other aspects (BPS 2016). Moreover, in any analysis, poor people category always be used as an economic disability.

This much of definition of poverty doesn't mean the definition of poverty goes wrong. According to Rozi (2007), the different meaning of poverty is not due to the data and research method, but rather lies in its ideological background. These differences in ideological backgrounds make the definition of poverty also different. It can also be caused by poverty that has multidimensional character. Therefore, poverty is divided into two types namely the origin of causes and conceptual. First, the causes of poverty occur because :

a. Cultural Poverty is a poverty condition which is referring to the issues of public or individual attitudes. This caused by the cultural factor. This condition makes people's life or individual is like not trying to improve their quality of life, wasteful and not creative regardless of there's an assistance from outside.

b. Structural Poverty is a poverty condition which caused by the low access to the resources. This condition occurs in a socio-cultural system and political social which cause society or individual becomes poor.

Second, if we viewed in concept, poverty is divided into two types, namely :

a. Absolute Poverty is a poverty which occurs if income is below the poverty line or insufficient to fulfill the food, clothing, health, housing, and education which needs to survive. These types take into account the minimum standard of living or poverty line. The existence of an absolute poverty line will assess the effect of anti-poverty policies overtime or estimate the impact of a policy on poverty.

b. Relative Poverty is a poverty that occurs when the influence of development policy has not reached all levels of society. This causes an inequity in the income side.

The vicious circle is a condition when someone entangled in the poverty chain. Poverty chain theory will make a country being poor again. This low

income will have a low-quality nutrient. This cause of the low education level and caused by the low quality of health. In this case, education level will influence the quality life of their household. The low education level has a low knowledge which affects the health. This will make a low quality of health and it'll impact the low productivity. This indicates that low income affects the low livelihood (health, education, and poverty).

There are two statements that capture the vicious circle of poverty theory. First, the vicious circle of poverty just happened in the developing country. Second, the benefits of investing are not settled in the recipient country, but returning to the home country so as not to be able to create the multiplier effect in the economy. The investment in any sector can affect the other investment so that if one sector can't develop itself, the other sector will not develop also. The solution to ending the vicious circle is through basic need (health and education). This statement in line with Todaro and Smith's opinion that education and health can help people to go out of the vicious circle.

3. RESEARCH METHODOLOGY
Types and Source of Data

This research uses cross section data in 2014. The secondary data comes from Indonesia Family Life Survey (IFLS) 5. The data obtained in RAND website which provides the information from household's survey in Indonesia. The scope of IFLS 5's survey data is West Indonesia (North Sumatera, West Sumatera, South Sumatera, Lampung, Bangka Belitung, Banten, DKI Jakarta, West Java, Central Java, East Java, DI Yogyakarta, South Kalimantan, West Sulawesi, South Sulawesi, West Nusa Tenggara and Bali). After the data was obtained, the data processed with Stata 13 to method analyze and Microsoft Excel to descriptive analyze. The variables which used in this research are the head of household head in IFLS 5.

Model of education on the living standard is used Two-Stage Least Square (2SLS). The dependent variables from this model are living standard or household consumption. The choice of this model is based on endogeneity's problem between education and living standard, as soon as identify the model with the result of over identified. The first step is estimation the instrument variable (educational assistance and disability of head of household) to resolve the endogeneity's problem of reduced form equity.

The following is the equity of reduced form's first step :

$$YOS = \beta_0 + \beta_1 AGE + \beta_2 AGE2 + \beta_3 HHSIZE1 + \beta_4 AGRI + \beta_5 RURAL + \beta_6 JAVA + \beta_7 GENDER + \beta_8 DIS + \beta_9 BANPENDUM + e_i \quad \text{........(i)}$$

Next, the second's step is to estimation the consumption from reduced form's result. This result is calculation of 2SLS's method with the dependent variable is living standard :

$$LN(KONS) = \alpha_0 + \alpha_1 YOS + \alpha_2 AGE + \alpha_3 AGE2 + \alpha_4 HHSIZE1 + \alpha_5 AGRI + \alpha_6 RURAL + \alpha_7 JAVA + \alpha_7 GENDER + u_{1i} \quad \text{........(ii)}$$

where,

YOS	= Educational attainment of head of household (years)
AGE	= Age of head of household (years)
AGE2	= Quadratic age of head of household
HHSIZE1	= Household size
KONS	= Consumption per capita of household per month (rupiah)

AGRI = Job sector (1 : agricultural and 0 : non-agricultural)
JAVA = Province where household live (1 : Java and 0 : Non-Java)
RURAL = Area where household live (1 : rural and 0 : urban)
GENDER = Gender of head of household (1 : female and 0 : male)
DIS = Disability of head of household (1 : disability and 0 : not disability)
BANPENDUM = Educational assistance that head of household get (1 : accept the educational assistance and 0 : didn't accept the educational assistance)
α, β = intersept
e, u = error

Research Hypothesis

The hypothesis is a temporary answer or conclusion that gets to answer the problems from the previous sub-section. The hypotheses are:

1. Educational attainment of the head of household has a positive relation to household's consumption so that it can decrease the poverty.
2. The employment of head of household in this research is agricultural's sector and non-agricultural sector. The agricultural sector has a negative relation with the consumption per capita.
3. Educational assistance which received by the head of household has a positive relationship with the educational attainment so that it can increase the living standard of the household.
4. Disability has a negative relation to educational attainment so that it can decrease the consumption per capita.
5. Age variable have a positive relation to consumption per capita but for quadratic-age have a negative relation to consumption per capita.
6. The regional variable with urban areas as a dummy is 0 and rural areas are 1 have a negative relation to consumption per capita.
7. An island in Indonesia is divided by Java (0) and Non-Java (1) as a dummy have a positive relation to consumption per capita.
8. Gender variable has a negative relation with dummy1 for woman and 0 for a man.
9. Household size variable has a negative variable to consumption per capita.

4. RESULT AND DISCUSSION

Descriptive Analysis

Head of the household characteristic could be seen from job sector, age and education. First, a higher head of household's education, a higher their living standard. These statements showed in Figure 3 that describe the head of household's level of education with the average of consumption per capita. The highest consumption per capita achieved by the head of household that has a higher education which is undergraduate, while the lowest consumption per capita is head of household's which doesn't achieve the education.
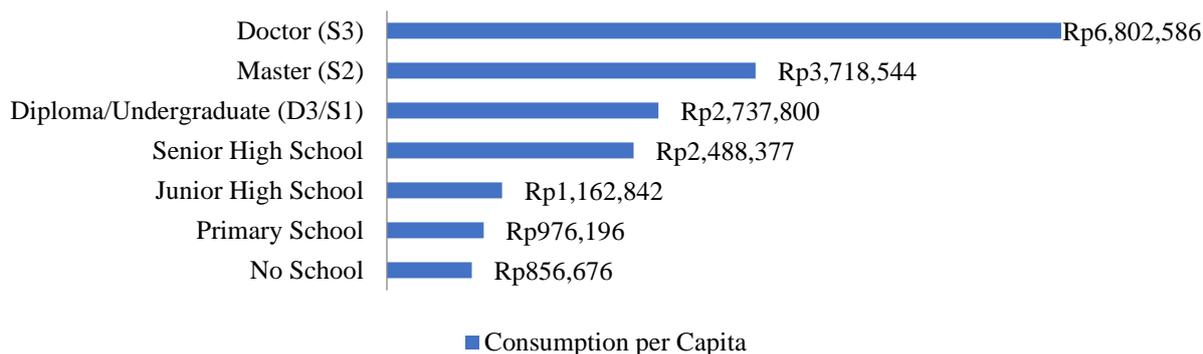
Figure 4 Correlation of level of education and consumption per capita
Source: *Indonesia Family Life Survey* (2014), processed

Second, the job sector of the head of household also determines their consumption. This job sector of this research consists of agriculture and non-agriculture sector. Figure 4 shows a correlation between job sector and consumption per capita. The household which worked in a non-agriculture sector has a higher consumption per capita than in agriculture sector. This also causes a large number of people prefer to work in a non-agriculture than agriculture sector.
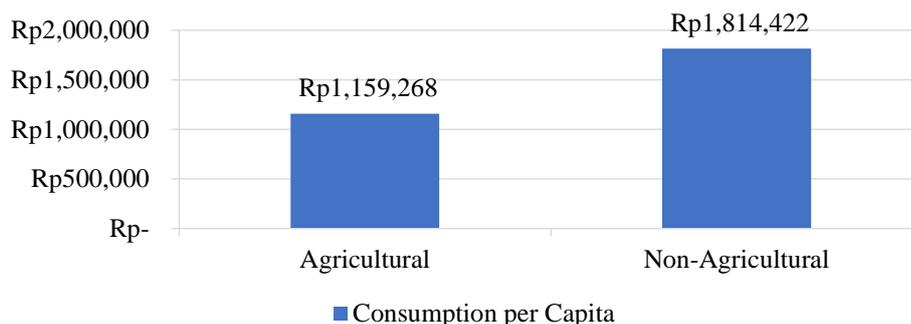
Figure 5 Correlation of type of job and consumption per capita
Source: *Indonesia Family Life Survey* (2015), processed

Third, the more productive head of household will increase their consumption per capita. This also suggests in Figure 5 that a productive head of household will increase the consumption per capita. Head of the household will decrease when reaching productive age limits. This leads when reaching unproductive age; they don't have a fixed job. There is something interesting inside, that age category to consumption per capita is an increasing consumption per capita drastically in 65-74 age. This happened because of, there's a household that has a higher outcome.
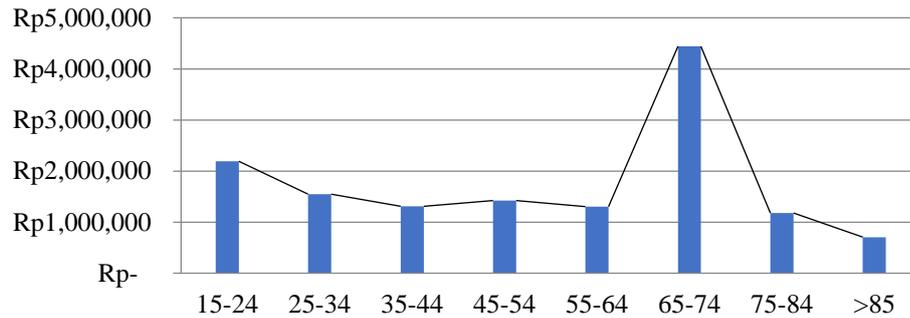
Figure 6 Correlation of head of household age and consumption per capita

Source : *Indonesia Family Life Survey* (2015), processed

Fourth, household's characteristic according to gender from the head of household and consumption per capita. There's a high average consumption per capita in female than male. This phenomenon is interesting because of in West Indonesia, there's much female that has a double profession, which is a housewife and working.
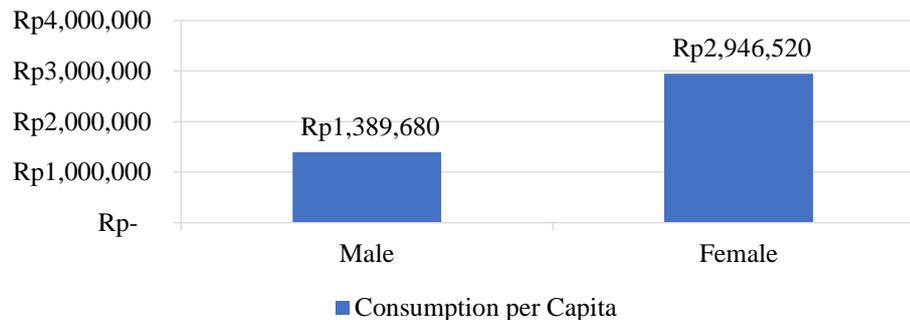
Figure 7 Correlation of gender and consumption per capita

Source: *Indonesia Family Life Survey* (2015), processed

The characteristic of household in this research is a rural area and a province where household live. Table 1 shows a household's area. There are so many people that live in urban area. This cause of in this areas can increase the living standard.
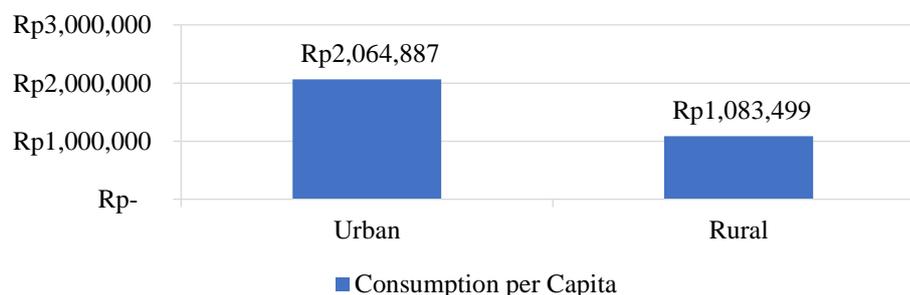
Figure 8 Correlation areas of household and consumption per capita

Source : *Indonesia Family Life Survey* (2015), processed

Second, a province where household lives in this research divided into two parts is Java and Non-Java areas. Table 2 shows descriptive analyzes from the province that household live. There's different between people who live in Java and Non-Java. The most people live is in Java than Non-Java. This because of there's an economic convergence so that it can increase their living standard.

	Java	Non-Java
■ Food	Rp606,026	Rp598,935
■ Non Food	Rp1,260,777	Rp822,799

Figure 9 Correlation of province that household live and consumption
per capita
Source : *Indonesia Family Life Survey* (2015), processed

Correlation of Education and Characteristic to the Living Standard in Indonesia's Household

Impact of education on the living standard is analyzed by econometric's approach. Table 3 explains a result of estimation result analysis from 2SLS. The first step from that table shows a reduced form equation and the second step is 2SLS's equation. The result of parameter estimation from this model have a determination coefficient or R-Squared is about 19.09 percent in the first step and 14.13 percent in the second step. R-Squared can give information as if that model is capable to explain the diversity of problem is about 14.13 percent and the other is explained by other variables out of the model. The significance value of this model concludes that independent variable determines together to the dependent variable. This show by the value of F-Statistic is about 363.33 which is significant at the real level 1 percent.

Educational attainment of the head of household has a positive and significant effect on consumption per capita of 0.14. This result is in accordance with the hypothesis. This indicates that every 1 percent increase in education will increase household consumption per capita by 0.14 percent. A higher educational attainment is the result of investment from acceptable education in the future. This statement is also accordance with human capital theory from Todaro and Smith (2009) that education is the main thing to reach a satisfying and precious life.

Age variable from the head of household also has a significant and positive effect on consumption per capita. This result is in accordance with the hypothesis. This shows that every 1 percent increase in age of head oh household will increase household's consumption of 0.03 percent and decrease 0.000023 which described in the quadratic age. This statement about age is in accordance to Gounder (2012), Nasution (2015) and Wuryandari (2015) that an increasing age will increase the level of consumption per capita or living standard.

According to the hypothesis, household size will decrease consumption per capita of the household. This result is in accordance with the hypothesis. On the regression result, household size decreases the consumption per capita of the household. Every 1 percent household member will decrease consumption per capita is about 0.1624. More and more a member of the household will cause a burden for a head of household to increase the cost of living in their household. That means a higher consumption per capita that must spend and certified to the

head of household. This research is in accordance to Ito (2009) that household size has a negative effect on consumption per capita.

Table 1 Analysis result from education and household characteristic to the living standard

Independent Variable	First Step (Dependent Variable : Educational Attainment)		Second Step (Dependent Variable : Log of Consumption per Capita)	
	Coeffisient	Probability	Coefficient	Probability
Educational Attainment			0.14163	0.000(*)
Age	-0.03585	0.011(*)	0.03065	0.000(*)
Quadratic Age	-0.00063	0.000(*)	-0.00023	0.000(*)
Gender	-1.03855	0.000(*)	0.08208	0.070(**)
Household Size	-0.10189	0.000(*)	-0.16242	0.000(*)
Agriculture	-0.55438	0.000(*)	-0.00665	0.812
Java	-0.51750	0.000(*)	-0.01551	0.549
Rural	-2.18155	0.000(*)	0.00596	0.947
Educational Assistance	1.75585	0.000(*)		
Disability	0.38166	0.909		
_cons	13.4328	0.000	12.2428	0.000
R-Squared	0.2053		0.1502	
Number of Obs	12,625		12,625	
F(9, 12614)	363.33			
Prob>F	0.0000			
Prob>chi2			0.0000	

Information : *significant at the **real level** 1 percent; ** significant at the **real level** at 10 percent

11

The gender variable doesn't match with the hypothesis that female have a negative effect on consumption per capita. The result of calculation using 2SLS indicates that gender has a significant and positive effect on consumption per capita. The female head of household will increase the consumption per capita. According to BPS (2015), female workers occurs a more increase than male workers by 4.37 percent in August 2014. There's a different wage that makes female worker is larger than male workers.

Next, a province that household life will significant and positive effect on consumption per capita. This according to the hypothesis. Consumption in Java is higher than Non-Java, because of the large of people. Regression also accordance to Purwantini (2012) that social welfare increasing in Java.

A dummy from group areas (urban and rural) effect but not significant to consumption per capita of the household. This cause, rural areas has a small consumption per capita than urban areas. Next, in the urban areas also has a negative and doesn't have a significant effect on the parameter by 0.0066% to consumption per capita of the household.

The instrument variable of the reduced form of education is education assistance and disability. Both of them have a different parameter and significance. First, education assistance has a significant and positive effect by 1.17. This analysis result shows that every 1 percent increase in education, it will increase the educational attainment become 1.17 percent. Second, other instrument variables, disability, doesn't have a significant.

5.   CONCLUSION AND SUGGESTION
Conclusion
1. Overall, this research in accordance with hypothesis and theory, that education can affect the level of consumption per capita. This condition is captured by significance and positive coefficient. The higher access to education, the higher level of consumption per capita.
2. There is an endogeneity correlation between education and living standard of the household. The way to resolve that problem is using the instrument variable in the reduced form, for example, education assistance and disability of head of household.
3. Impact of education on poverty has a positive and significant effect. Some characteristic household variable has a positive and significant impact on consumption per capita, as educational attainment, gender (female), and age of head of household. To negative variable for this model are the household size and quadratic age. Some variable which is not significant to poverty is agricultural sector, java and rural.

Suggestion
1. There needs to increase the education access so that consumption per capita will increase. Education access needs to develop equally in Java and Non-Java, also urban and rural. This will decrease the gap in education. A higher education access is to increase the consumption per capita and reduces poverty according to some theory.
2. The educational attainment with skills will lead them to enter the good quality work as an agricultural sector or non-agricultural sector to get a higher wage.

References

Adam, L. (2017). Daya Saing TK Indonesia di Kawasan ASEAN. *Seminar The 2nd Thee Kian Wie: Memperkuat Peran APBN dalam Meningkatkan Kualitas SDM Indonesia*. Jakarta.

Bellante, D., & Jackson, M. (1983). *Ekonomi Ketenagakerjaan*. Liotohe, W K dan Yasin, M, *penerjemah.* Jakarta: Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia.

BPS. (2015). *Pertumbuhan Ekonomi Indonesia Triwulan I-2015*. No. 45/Th. XVIII, 5 Mei 2015.

BPS. (2016*). Indikator Kesejahteraan Rakyat 2016*. [internet]. [diunduh pada 25 Maret 2017].

BPS. (2016). *Potret Pendidikan Indonesia : Statistik Pendidikan 2016.* [internet]. [diunduh pada 13 Februari 2017].

BPS. (2016). *Statistika Indonesia tahun 2015*. Jakarta: Badan Pusat Statistik.

Bunzel, H. (2008). *Mincer Model*. Diakses pada : http://www2.econ.iastate.edu/classes/econ671/bunzel/Fall%202008/Mincerbeam.pdf. [diunduh pada 20 April 2017].

EFP. Education Firm Pearson. (2016). *Tingkat Pendidikan-Education Firm Pearson.* [internet]. Diakses pada : www.thelearningcurve.pearson.com. [diunduh pada 13 Februari 2016].

Esmara, H. (2004*). Kemiskinan dan Kebutuhan Pokok*. Jakarta:Rajawali.

Gounder, R. & Xing, Z. (2012). Impact of Education and Health on Poverty Reduction : Monetary and Non Monetary Evidence from Fiji. *Economic Modelling*, 29, 787-794.

Gujarati, D. (2006). *Dasar-Dasar Ekonometrika Jilid 2 Edisi Ketiga*. Barnadi, D dan Hardani, W, *penerjemah.* Jakarta:Erlangga.

Ito, T. (2010). Education and Its Distributional Impacts on Living Standards: Evidence from Rural India. *Global CEO Hi-Stat Discussion Paper Series 080*. Tokyo: Institute of Economics Research Hitotsubashi University.

Juanda, B. (2009). *Ekonometrika Pemodelan dan Pendugaan*. Bogor: IPB Press.

Nasution, A. (2015). Peran Modal Sosial terhadap Pengurangan Kemiskinan Rumah Tangga Perdesaan di Indonesia. [DISERTASI]. Bogor: Institut Pertanian Bogor.

Purwantini, T. B. (2012*). Analisis Dinamika Konsumsi Pangan dan Kesejahteraan Rumah Tangga Petani Padi*. Bogor: Pusat Sosial Ekonomi dan Kebijakan Pertanian.

Rahman, A. (2009). *Evaluasi Tanggung Jawab Sosial PT. Holcim Indonesia Tbk (Studi Kasus Baitul Maal wa Tamwil Swadaya Pribumi, Kecamatan Klapanunggal, Kabupaten Bogor, Provinsi Jawa Barat).* [SKRIPSI]. Bogor: Institut Pertanian Bogor.

RAND. (2017). *RAND Indonesia Family Life Survey 5 (IFLS).* [internet]. Diakses pada www.rand.org/labor/FLS/IFLS/ifls5.html. [diunduh pada 22 Januari 2017].

Rolleston, C. (2011). Educational Access and Poverty Reduction : The Case of Ghana 1991-2006. *International Journal of Educational Development*, 31, 338-349.

Rozi, M. F. (2007). *Dampak Otonomi Daerah terhadap Pengurangan Kemiskinan: Kasus Provinsi Riau.* [Tesis]. Bogor: Institut Pertanian Bogor.

SMERU. (2015). *Peluncuran Peta Kemiskinan dan Penghidupan Indonesia 2015.* [internet]. Diakses pada http://www.smeru.or.id/sites/default/files/events/siaran_pers_peluncuran_peta_kemiskinan_dan_penghidupan_smeru.pdf. [diunduh pada 29 Desember 2017].

Strauss, J., Witoelar, F. & Sikoki, B. (2016). User's Guide for the Indonesia Family Life Survey, Wave 5. Working Paper WR-1143/2-NIA/NICHD : RAND.

Todaro, M. P., & Smith, S.C. (2006). *Pembangunan Ekonomi Edisi kesembilan Jilid I.* Yelvi, penerjemah. Jakarta: Erlangga.

UNESCO. (2016). Education for People and Planet: Creating Sustainable Futures For All. *Global Education Monitoring Report*, Unesco.

World Bank. (2015). Ketimpangan yang Semakin Lebar. Jakarta: World Bank.

Wuryandari, R. D. (2015). Faktor-Faktor yang Mempengaruhi Pengeluaran Makanan, Pendidikan, dan Kesehatan Rumah Tangga Indonesia. *Jurnal Kependudukan Indonesia*, 10(1), 27-42.

Zuluaga, B. (2007). *Different Channels of Impact of Education on Poverty : An Analysis for Colombia.* Centre for Economic Studies.