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Why the Rate of Return of Religious School (Madrasah) is Too Low: The Case in Indonesia*

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Abstract

Religious schools (madrasah) in Indonesia have contributed to fulfilling the equity goals of education. Up to this point, studies on the rate of return of madrasah and its relation to general or vocational education remain limited. In contrast to the previous studies that omit madrasah from their analysis, this study pay greater attention to this particular type of education. By adopting the Mincerian model of the human capital and applying the semi-log earnings function to the 2012 data of the National Socioeconomic Survey (SUSENAS) of Indonesia, this study discovers that the rate of return of graduates from madrasah is considerably lower than that of graduates from the equivalent formal general and vocational education. Furthermore, graduates from lower and upper secondary madrasah are unable to increase their income in the labor market. Raising awareness of the quality of madrasah in Indonesia is an important point discussed in this study.

Keywords: religious schools; *madrasah*; education; rate of return

JEL classifications: I26; J24; J31

1. Introduction

Expanding the access of the school-age population to education is a part of the human resource strategy of Indonesia. This policy aims to improve the likelihood of the younger age population of obtaining formal certificates either through formal or non-formal education process¹. The Ministry of Education and Culture of Indonesia (MEC-I) is responsible

for government school systems, while the Ministry of Religious Affairs of Indonesia (MRA-I) plays an active role in promoting various religious schools².

Despite the wide-ranging debate and discussion regarding the quality of the teaching-learning process in the public sphere, Gardiner (2000) calculates the significance of improvement to the inequalities at all levels of education. The Gross Enrolment Rate (GER) of primary schools has reached 95.6% in 2012, which is a significant increase from around

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¹Non-formal education is defined as organized (albeit only loosely organized) and may or may not be guided by a formal curriculum. This type of education may be led by a qualified teacher or by a more experienced leader. Even though it does

not result in a formal degree or diploma, non-formal education is highly enriching and building individual skills and capacities. The examples of non-formal education are advanced education courses for adults as well as girl guides and boy scouts for children. It is frequently considered more engaging as the interest of the learners is the driving force behind their participation.

²According to Law No. 20/2003, madrasah is an integral part of the National Education System and indistinguishable from schools forming the general education system under the MEC-I. At the end of 2008, approximately 21188 Madrasah Ibtidaiyah (MI) cover 2.87 million students or 9.7% of total students and 12883 Madrasah Tsanawiyah (MT) cover 21.4% of students. Only 12% of MI and 24% of MT are managed by the government, while the rest is managed by private sector (Ali et al. 2011)

92% in 2000. Meanwhile, the GER of secondary schools has reached 88%, with the remaining 12% do not finish lower secondary education (Reibling, Ariaans & Wendt 2019).

According to the applicable regulations in Indonesia, schools under MRA-I apply similar curriculum to schools under MEC-I. The students learn Mathematics, Science, and Reading at primary and lower secondary level. However, schools managed by MRA-I also include religious-related subjects in their curriculum, including memorizing Quran.

Several Islamic schools administer their classes in a similar routine to general schools. Students come to school earlier morning and finish by midday. In the boarding school system, however, students live in the school instead of with their parents. In principle, Islamic schools aim to teach students not only cognitive but also spiritual knowledge and practices.

Theoretically, education will improve the shadow market wage of an individual. According to Blaug (1987), education will also increase the rate of return of an individual. Higher level of education attained means higher rate of return, specifically for developing countries (Psacharopoulos 1981; Blaug 1987; Patrinos & Psacharopoulos 2020). The rate of return tends to decrease in countries with better economy (Psacharopoulos 1981; Purnastuti, Miller & Salim 2013).

The rate of return to education in the case of Indonesia is estimated according to several aspects. The rate of return based on level of education becomes the main concern of previous studies, whose results have been published extensively (Psacharopoulos 1981; Ashenfelter, Harmon & Oosterbeek 1999; Belzil 2007; Purnastuti, Miller & Salim 2013; Stephens Jr & Yang 2014; Patrinos & Psacharopoulos 2020). Until recently, an unobservable variable stems from the types of education. It is widely recognized that Indonesia has various types of education, namely religious, general, and vocational education. However, previous studies eliminate one type of education, namely religious

education, which is the main concern of the current study.

Differences in individual return may exist due to different forms of schools from different levels of education, though previous studies tend to overlook them (Purnastuti, Miller & Salim 2013). The decline in the academic achievement of schools under the MEC-I and the MRA-I also initiates a heated debate³. The quality of religious schools is deemed problematic as teachers lack adequate training (Depdiknas 2011).

Two questions need to be addressed: What is the rate of return of Islamic schools in comparison with general or vocational schools? Do Islamic schools contribute to providing additional returns? These questions aim to discover how the adopted Islamic education has exactly contributed to the labor market outcomes of Indonesia.

This paper contains five sections. Section two describes the theoretical framework, the rate of return to education proposed by Mincer (1974), and several empirical investigations in different countries and at various levels of education. Section three manages the 2012 SUSENAS data and compares the mean income in accordance with the level of education of the respondents and the estimation model. Section four explains the findings and analysis, emphasized on the estimations of Islamic and general schools at similar level. The final section reveals conclusion and recommendation.

2. Literature Review

2.1. Studies of the Rate of Return

The rate of return to education comprises individual and social benefits of education. The individual rate of return can be estimated through the lifetime income received by informal status, considering

³Over 45.507 Madrasah (Islamic schools) operate under the Ministry of Religious Affairs. In 2013, 22.4% of schools have never been accredited while 51.3% need to be re-accredited (Republika 2013).

that individuals easily report their monthly salaries. However, the rate of return to education is quite difficult to estimate when an individual engages in non-formal education. The individual rate of return is more frequently compared to the social rate of return.

Psacharopoulos (1981) reveals that the rate of individual return is much higher in developing countries than in developed countries. The rate of return to education in less developed countries is around 19.9% while the rate of return to physical investment reaches 15.1%. A downward trend is observed in the rate of return to education and development process. Meanwhile, the social rate of return is slightly higher than the individual rate of return.

Various empirical investigations into the rate of return are conducted in Indonesia. Behrman & Deolalikar (1991) employ the 1987 SUSENAS data and reinforce their estimations by controlling for gender and age. The rate of return of graduates from primary education to university ranges from 5.5% to 11% with an increase in the level of schooling reducing the differences in the rate of return between males and females. The rate of return to education for females is slightly higher, exactly 1–2% higher than their male counterparts. In addition, vocational high schools has a slightly higher return in comparison to general high schools. The gap in the rate of return based on gender ranges from 0.6–0.8. However, the gap declines as the level of education increases.

McMahon & Jung (1992) investigate the rate of return of secondary education in three provinces (East Java, West Sumatra, and NTT), revealed to range from 14–16% or around 4–6% higher than the estimations by Behrman & Deolalikar. In general, the rate of return of vocational schooling is slightly higher compared to that of general education. McMahon & Boediono (1992) also find that graduates from public schools earn significantly higher income in comparison with graduates from private schools.

2.2. Mean Income

Another alternative is to observe the difference in monthly income across different levels of education and individual characteristics. According to our data, monthly income can be calculated based on the level of education completed. In fact, the data also allow us to compare the differences in monthly income at several levels of education (i.e., primary, lower secondary, and tertiary education).

By referring to the 2012 SUSENAS data, Figure 1 presents the mean income of individuals based on characteristics (location, age, and gender), while Figure 2 presents the mean income of individuals based on levels and types of education. Respondents living in urban areas earn high income in comparison with respondents living in rural areas. Younger age groups earn 40% higher income compared to the older age groups. The peak income is obtained at the age of 40–49 years and declining afterward. Male respondents receive 58% higher income compared to female respondents. Interestingly, the mean income of individuals observed from primary, secondary, and tertiary education does not show a great difference⁴. In general, graduates from vocational education earns 12% lower income compared to graduates from general education. Graduates from Islamic schools as well as non-formal education such as *Kejar Paket A, B, and C*, earn 34% lower income than graduates from general schools.

However, there is a significant difference in income between university and diploma graduates⁵, in which the income earned by university graduates is 2.51 times higher than the income earned by diploma graduates. Furthermore, post-graduate education generates income 1.74 times higher than

⁴Comparing the minimum wage and monthly income, our data reveal that workers with primary and secondary education tend to earn the minimum salary.

⁵The effort to increase the quality of upper secondary education is the concern of the Ministry of Education and Culture. Increased proportion of students entering vocational education is followed by an improvement in the teaching and learning process. This is also a major policy to expand polytechnic education in the higher education system.

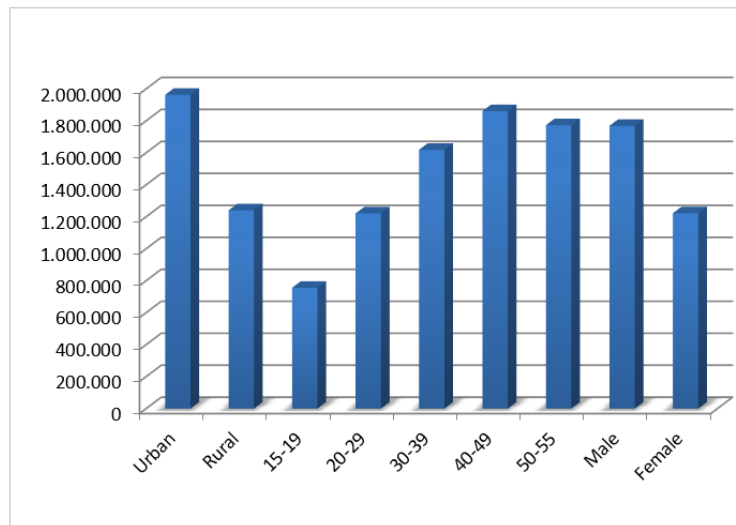


Figure 1. Monthly Income from the Main Occupation (in IDR)

Source: SUSENAS data (2012)

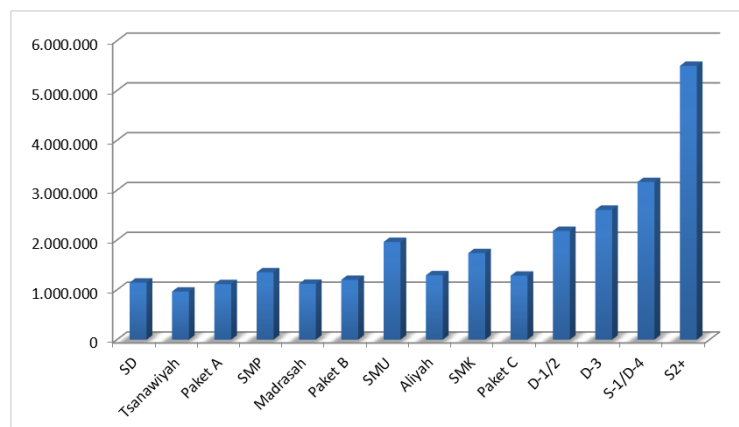


Figure 2. Monthly Income According to Level of Education (in IDR)

Source: SUSENAS data (2012)

undergraduate education. A study conducted by Molitor & Leigh (2005) observe that diploma education has contributed to individual income observed from work experience.

3. Method

3.1. Data and Variables

Since the identification and transition of the labor market of Indonesia to the formal labor market, approximately 55% of the workforce in Indonesia is

engaged in formal job sectors. In estimating the rate of return to education, all samples have to work in the labor market and include both employees and employers. According to the 2012 SUSENAS⁶, individual income only covers income earned from main occupation and disregards any additional source of income. Even self-employed and unpaid family workers are excluded from the formal wage system. Table 2 presents the number of observations, mean, and standard deviation of each variable.

⁶SUSENAS 2012 provides data on various types of education including return of religious school at the individual level.

Table 1. Variable, Definition, and Expected Value

Variable	Definition	Expected Value
Monthly individual income (Ln Y)	Monthly income earned from the main occupation (in Rupiah)	
Individual		
Urban (Uw)	urban = 1; rural = 0	Positive
Sex (Sex)	male = 1; female = 0	Negative
Age (Age)	Age of respondents	Positive
Age square	Age Square of respondents	Positive
Level of Education completed (ED)		
Primary Education		
	SD = 1; others = 0	Positive
	MI (Madrasah Ibtidaiyah) = 1; others = 0	Positive
	PAKET-A = 1; others = 0	Positive
Lower Secondary		
	SMP = 1; others = 0	Positive
	MT (Madrasah Tsanawiyah) = 1; others = 0	Positive
	PAKET-B = 1; others = 0	Positive
Upper Secondary		
	SMA = 1; others = 0	Positive
	MA (Aliyah) = 1; others = 0	Positive
	VOC (SMK) = 1; others = 0	Positive
	PAKET-C = 1; others = 0	Positive
Diploma and University		
	D1/D2 = 1; others = 0	Positive
	D3 = 1; others = 0	Positive
	D4/S1 = 1; others = 0	Positive
	S2/S3 = 1; others = 0	Positive

Source: Author (2020)

3.2. Model Estimation

The Mincerian model of the human capital originally published in 1963 suggests how to estimate the rate of return to education based on the level of education of individuals⁷, where Y indicates the personal income, S represents the duration of schooling, E denotes experiences, and e_i signifies error terms. The semi-log function of personal income is formulated as follows:

$$\ln Y = a + bS_i + cE_i + dEX_i^2 + e_i \quad (1)$$

b is the mean rate of return to education according to the duration of education completed, where:

$$\frac{d\ln Y}{dS} = b$$

⁷We have to take into account the measurement of benefits covering personal income from the main occupation. In this model, we have not estimated the social rate of return since the SUSENAS data do not include completed individual social externalities.

b can be interpreted as the effect of the duration of schooling on the additional income of an individual⁸. In order to estimate the return of non-formal education at all levels, model one is extended into the following model:

$$\begin{aligned} \ln Y = & a + b_1SD + b_2MI + b_3PaketA + c_1SMP \\ & + c_2MT + c_3PaketB + d_1SMA + d_2MA \\ & + d_3VOC + d_4PaketC + f_1D1_2 + f_2D3 \\ & + f_3D4_{S1} + f_4S2 + e_i \end{aligned} \quad (2)$$

Where there are three types of primary education (SD, MI, and *Paket A*), three types of lower secondary education (SMP, MT, and *Paket B*), four types of upper secondary education (SMA, MAN, VOC, and *Paket C*), and four types of tertiary education (D1/D2, D3, D4/S1 and S2/S3).

It is assumed that the duration of primary education, namely SD as general primary school, MI as

⁸The rate of return to education (RR) can be measured through the following formula: $RR = \frac{b}{\text{years of schooling}}$ (McMahon 1998).

Islamic primary school, and *Paket A* as non-formal education equivalent to primary education, is six years. Thus, we predicted that the coefficient values of b_1 , b_2 , b_3 will be close to each other in value, reflecting no different rate of return. This prediction also applies to lower secondary education, namely SMP, MT, and *Paket B* (c_1 , c_2 , and c_3), in which the first is general lower secondary school, the next is Islamic lower secondary school, and the latest is non-formal education equivalent to lower secondary education. Lower secondary education takes three years to complete after six years of primary education. Similarly, the duration of upper secondary education, namely SMA (general high school), MA (Islamic high school), VOC (vocational high school), and *Paket C* (non-formal education equivalent to upper secondary education), is three years. Thus, an individual needs twelve years to complete their education to upper secondary education.

4. Results and Analysis

4.1. Summary of the Model

Our main objective is to analyze the level of income according to the level of education of an individual. This study used two groups of variables. The first group is individual characteristics, such as location, gender, age, and age square. The second group are the log-linear coefficients of each level of education attained as defined in Table 2 whose values are presented in Table 3 in three different columns based on total values and gender. Furthermore, Figure 3 illustrates the rate of return to education by controlling for the age of respondents.

In general, our model in Table 3 shows comparable coefficients in accordance with our objectives. The R-squared value of 0.2672 reflects the ability of explanatory variables to significantly explain the difference in income of the respondents. Interestingly, respondents living in urban areas earn significantly higher income compared to those living in rural areas, shown by a coefficient value of 0.25. The value may not reflect the level of education attained by

the respondents, but rather the jobs available at a certain level of wages.

Furthermore, the return for male workers is slightly lower than that for female workers, specifically in most developing countries. A similar estimation was also observed by Behrman & Deolalikar (1991) using the 1987 SUSENAS data. This gap may be caused by the fact that females are more likely to have an occupational work with a relatively high salary.

The age of respondents reflects their experience when an increase in the age raises incomes by 0.07 points. The additional income of respondents declines with each increase in the age of respondents (accounted by the coefficient value of age square of -0.0007). This finding is common in other previous studies.

Our basic question considers whether education may improve the lifetime income of an individual. As the education attained by respondents differs, the coefficient log of income also varies according to the types of schooling, which is evident among the lower level of education. Statistically, primary education (SD) can raise the income of the respondents by 0.17 points.

Observed from the lower secondary level, the coefficient of log income of graduates from SMP is 33% higher compared to graduates from MT. Furthermore, Kejar Paket B does not show any economic benefits in terms of main income. Upper secondary schools also show similar results, in which the return of general schools is significantly higher compared to that of MA, VOC, and *Paket C*. *Paket C* statistically provides economic benefits for males only. An increase in the level of education indicates an increase in personal income. When we controlled for the age of respondents, it is revealed that the additional income of S1 graduates is not significant compared to that of Diploma 3 graduates.

4.2. Return of Non-Formal Education

We faced difficulty in calculating the return of non-formal education since we do not know the exact duration of non-formal schools. Supposing the duration is similar to formal schools, we can conclude that non-formal schooling, particularly *Paket A* and *B*, does not have any economic benefits. The coefficient values of both *Kejar Paket A* and *B* are insignificant, namely 0.078 and 0.149 respectively, which are low in comparison to the coefficient values of SD (0.174) and SMP (0.337). As a result, the individual rates of return of SD and SMP are 2.9% and 3.7%, respectively. Supposing the duration of non-formal *Paket A* is 6 years, the individual rates of return of *Paket A* and *B* are 1.3% and 1.7%, respectively⁹.

A study by McMahon & Boediono (1992) estimates that the rate of return for males in Central Java are 11% and 9% for general and vocational junior high schools and 12% and 14% for general and vocational senior high schools. Behrman & Deolalikar (1991) also estimate the rate of return of primary education, finding the lowest rate of return of around 3.2%. Our finding is close to that of Behrman & Deolalikar who used the 1987 SUSENAS data.

The individual return of *Paket C* is statistically significant for males only (column 2 and 3 in Table 3). The combined coefficient is 0.281, resulting in the rate of return of 2.3% (assuming it is similar to SMA level). The coefficient of log income of SMA is 0.607 with a rate of return of 5.1%. A slight increase in the coefficient of *Paket C* is related to the programs for male students. This may be due to the absence of standard objectives in *Paket A* and *B* programs. It is necessary to include the main objective of the teaching-learning process, namely achieving minimum cognitive and psychomotor development, in the curriculum and have it implemented by trained

⁹To obtain the rate of return, the following formula is used: $RR = \frac{Coefb}{durationofschooling}$. Coefficient b is the estimated coefficient of semi-log income, and six years is the duration of completing education. It is assumed that primary education is completed in six years, lower secondary education in nine years, and upper secondary education in twelve years.

instructors.

Table 2. Variable and Standard Deviation

Variable	Mean	Standard deviation
Monthly Individual income (Ln Y)	13.86971	0.9502953
Individual		
Urban (Uw)	0.4767878	0.4994636
Sex (Sex)	0.663415	0.4725442
Age (Age)	36.83079	10.10989
Age square	1458.716	744.7275
Level of Education completed (ED)		
Primary Education		
	0.2538960	0.4352412
	0.0072945	0.0850961
	0.0013233	0.0363531
Lower Secondary		
	0.1556119	0.362489
	0.0147421	0.1205193
	0.0027450	0.0523211
Upper Secondary		
	0.1925437	0.39429980
	0.0129048	0.1128644
	0.0708013	0.2564940
	0.0034012	0.0582206
Diploma and University		
	0.0121939	0.1097514
	0.0226490	0.1487825
	0.0796269	0.2707161
	0.0068680	0.0825886

Source: Author (2020)

In reality, *Kejar Paket A* and *B* programs are frequently administered by the local NGOs that are not always qualified to manage the programs. The programs are also highly dependent on the availability of funds, which are frequently limited as the monitoring process is limited. In addition, it is difficult to observe the impact of *Kejar Paket* programs since they normally run for merely two to three months. In summary, even though *Kejar Paket A* is labeled as standard primary education by the government of Indonesia, the labor market mostly does not acknowledge it as formal schooling.

However, in terms of upper secondary education, *Kejar Paket C* is statistically beneficial to males, though not to females. This is partially due to the pro-male bias in determining vocational education. Males obtain more benefits from practical vocational training provided. Subsequent to attending a short course for two to three months, they may become semi-skilled or skilled workers needed by

Table 3. Log-Linear Coefficients of Determination of Personal Income

	Total (1)	Male (2)	Female (3)
<i>Individual Characteristics</i>			
Urban	0.253*** (0.005)	0.234** (0.042)	0.294*** (0.011)
Male	0.542*** (0.006)		
Age	0.070*** (0.001)	0.087*** (0.002)	0.040*** (0.003)
Age ²	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
<i>Primary Education</i>			
SD	0.174*** (0.008)	0.166*** (0.010)	0.170*** (0.017)
MI	-0.009** (0.035)	0.046** (0.035)	-0.076* (0.069)
Paket A	0.078 (0.140)	0.004 (0.104)	0.107 (0.308)
<i>Lower Secondary</i>			
SMP	0.337*** (0.009)	0.302*** (0.011)	0.391*** (0.019)
MT	0.231** (0.022)	0.204** (0.024)	0.277** (0.045)
Paket B	0.149** (0.054)	0.100** (0.057)	0.249 (0.130)
<i>Upper Secondary</i>			
SMA	0.607*** (0.009)	0.538*** (0.011)	0.734** (0.018)
MA	0.362** (0.023)	0.309** (0.028)	0.445*** (0.042)
Vocational	0.570*** (0.012)	0.497*** (0.013)	0.717** (0.025)
Paket C	0.281** (0.046)	0.294** (0.052)	0.175* (0.094)
<i>University</i>			
D1/D2	0.892** (0.027)	0.701** (0.037)	1.068** (0.037)
D3	1.077*** (0.018)	0.907** (0.024)	1.251** (0.027)
D4/S1	1.137*** (0.012)	0.987*** (0.015)	1.332** (0.020)
S2-S3	1.581** (0.027)	1.445** (0.031)	1.850** (0.050)
Constant	11.461** (0.035)	11.740** (0.042)	11.890* (0.065)
Obs.	91439	60661	30777
Prob>F	0.0000	0.0000	0.0000
R-squared	0.2672	0.2180	0.2401

Source: Author (2020)

Note: * statistically significance at 10%,
 ** statistically significance at 5%,
 *** statistically significance at 1%.

the users. The problems encountered by females attending *Paket C* are the location of the program which is mostly in rural areas and the availability of formal jobs in urban areas with a paid system.

4.3. Returns of Islamic Schools

It is interesting to discuss the returns of Islamic schools since the effect of Islamic schools is negative on personal income, which is a considerably important finding in our analysis. Graduates from MA (taking 12 years to complete) obtain a coefficient of log income of 0.362 while graduates from SMP (taking 9 years to complete) obtain a coefficient of log income of 0.337 (column 1, Table 3). It means that the rate of return of MA is lower than that of lower secondary schools (SMP).

Schools managed under the department of religion frequently fail to fulfill basic cognitive needs. Due to its traditional madrasah system, the learning process is emphasized on Quranic readings and the objective of the curriculum is focused on providing Islamic knowledge. Poor quality Islamic schools are partially caused by a limited number of qualified teachers, remote locations, limited learning resources, and lack of support. A recent study conducted by Depdiknas (2011) using 6,233 students from 150 Madrasah schools in Java, Sumatra, and eastern part of Sumatra as samples reveal that religious schools under the management of MRA-I have lower achievement in mathematics and language. Islamic schools located in Java have better achievement than the rest. This finding is supported by Pritchett (1999). Using cross-national data on economic growth rates, the study discovers that an increase in the educational attainment of the workforce has no positive effect on the growth rate of output per worker. It may happen when schools do not actually improve cognitive skills or productivity.

5. Conclusion

Initially, this paper aims to investigate the rate of return to education in Indonesia and update the analysis based on the latest available data, particularly in terms of types and levels of education. In terms of formal education, it is necessary to further examine labor market outcomes based on the income earned by individuals from their main occupa-

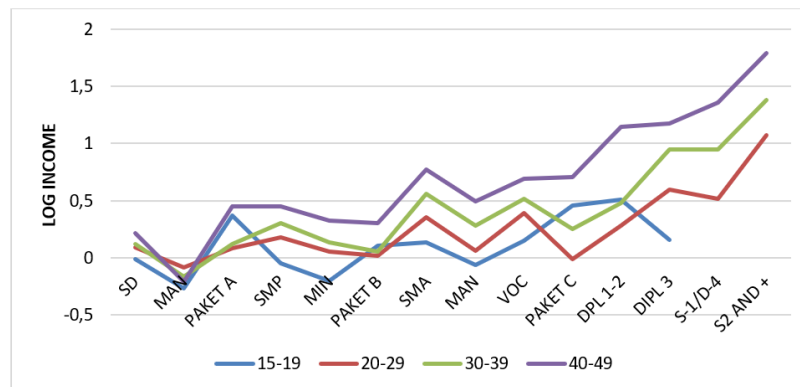


Figure 3. Coefficients of Log Income According to Level of Education by Controlling for the Age of Respondents

Source: calculated from the 2012 SUSENAS data

tion. This study finds a significant and positive rate of return of general schooling in Indonesia. However, the rate of return to education in Indonesia is rather lower than the previous estimates by various previous researches (McMahon & Boediono 1992; Behrman & Deolalikar 1993; Deolalikar 1993; Purnastuti, Miller & Salim 2013; Sohn 2013). Our findings extend the previous findings by comparing the rate of return to education of general schools, Madrasah schools, and non-formal schools of Kejar Paket. It increases awareness of the low benefits of Islamic schools and non-formal education through the “learning group program” or *Kejar Paket*, particularly at the primary and lower secondary level. The income of graduates from Islamic education and non-formal education does not increase with each increase in the level of education. Only upper secondary education shows a significant increase in income. The rate of return of university graduates is significantly different, in which higher level of university education means higher labor market outcomes.

It implies that the poor education quality of Islamic and non-formal education demands for policy implications. It is essential to address the issue of how to improve the quality of Islamic education, in the sense of economic returns. We do not have adequate data concerning how Madrasah administers the education process. Supposing Madrasah emphasizes education solely on Islamic ‘cognitive’

development, it may hinder the fulfilment of psychomotor development. The faith-based organization (FBO) running the schools should pay attention to the fulfilment of basic skills in the madrasah education process.

Our study is limited to the SUSENAS data only, particularly educational attainment of individuals by levels and types. We cannot traced the consistency of educational attainment of each individual since enrolling to primary schools to lower or upper secondary schools.

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Appendix

Monthly Income and the Characteristics of Respondents, the SUSENAS 2012

Characteristics	Mean (in Rp/month)	Sample
Location		
Urban	1,962,760	43,597
Rural	1,240,758	47,482
Age		
15–19	755,929	3,747
20–29	1,221,054	20,462
30–39	1,619,059	28,781
40–49	1,861,289	26,515
50–55	1,773,328	11,934
Sex		
Male	1,768,795	60,662
Female	1,222,376	30,777
Education		
<i>Primary</i>		
SD	1,145,798	23,216
MI	965,782	667
Paket A	1,725,852	121
<i>Lower Secondary</i>		
SMP	1,351,868	14,229
MT	1,119,982	1,348
Paket B	1,200,853	251
<i>Upper Secondary</i>		
SMU	1,960,535	17,606
MA	1,291,804	1,18
SMK	1,736,972	6,474
Paket C	1,282,919	311
Diploma 1/2	2,183,187	1,115
Diploma 3	2,606,096	2,071
S1/D4	3,163,617	7,281
S2/S3	5,495,334	628

Source: Author (2020)