

# The Influence of School Fees, Age, Gender on Children's Education Level in Indonesia

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## ABSTRAK

**Abstract:** This study aims to determine the effect of school fees, age and gender on children's education level in Indonesia. Variables in school fees are school fees, equipment and transportation. The age variable is the sample that is aged 15 to 25 years. Gender variables consist of male and female. This study uses secondary data from the Indonesian Family Life Survey 5 (IFLS 5). The sample in this study were 2,601 respondents. It employs regression analysis and quantitative approach. It proves that there is a significant effect between school fees, age and gender on children's education levels.

**Abstrak:** Penelitian ini bertujuan untuk mengetahui pengaruh biaya sekolah, usia dan jenis kelamin terhadap tingkat pendidikan anak di Indonesia. Variabel biaya sekolah adalah biaya bersekolah, peralatan sekolah dan transportasi. Variabel umur adalah sampel yang berumur 15 sampai 25 tahun. Variabel gender terdiri dari laki laki dan perempuan. Penelitian ini menggunakan data sekunder dari Indonesian Family Life Survey 5 (IFLS 5). Sampel pada penelitian ini sebanyak 2.601 responden. Penelitian ini menggunakan analisis regresi dan pendekatan kuantitatif. Analisis ini membuktikan ada pengaruh yang signifikan antara biaya sekolah, usia dan jenis kelamin terhadap tingkat pendidikan anak.

Development is one of the efforts to achieve one of the country's goals, namely the growth of social welfare. Social welfare refers to activities undertaken to develop living standards and economic activities (Albayrak, 2020). One way to develop this development is through education. In terms of improving the level of education, one of the components is how much consumption is spent on school fee. In this study, the variable level of consumption of school fees in question includes school fees, school equipment and transportation costs. These sub-variables are components to support the learning process. These costs must be incurred by each household and can be used for daily consumption and even for a certain period. Other supporting factors besides the level of consumption of school fees are gender and age.

The background of this research is there are factors that cause the level of school fees, age, and gender to the level of education of children. Considering the consumption that must be met by each household that is different, so that the priority that will be created must be issued to meet the needs (S. E., 2016). The purpose of this study is to see whether education still needs to be a priority in household consumption. In addition, it also to see how much consumption levels will be spent on education. Another factor that needs to be considered is gender. This is to see whether there is an inequality in continuing education for men and women.

A country commonly has macro and micro economic problems. In this regard, in developing countries, the main problem faced is the cost of education which is considered high because there are many needs that must be fulfilled other than education. The problem is how much education costs and what kind of informational needs are needed to analyze costs in education. Therefore, this analysis uses the economic framework. The paper concludes that although cost analysis can make a significant contribution to informed decisions about education, greater efforts should be made to strengthen the information based on cost analysis and to incorporate cost analysis into education policy (Deininger, 2003). The research was carried out in developing countries, usually the amount of household consumption that will have an impact on the GDP or Gross Domestic Product in that country. In general, the size of the percentage depends on each country. The research proves that the cost of education is used as one of the benchmarks for determining policy. This can mean that the cost of education is something important (Gaspard et al., 2020).

Women in Indonesia have received secondary education and it is relatively larger numbers than men in recent years. This difference is greatest at the Diploma I level and vocational secondary education, but also, it is still quite large for non-vocational secondary school and university education (Nandi et al., 2019). The level of educational equality between men and women appears to be universal in developing countries. For example, women in Africa appear to experience more discrimination in terms of access to education. It concludes that while substantial progress has been made in the last 40 years, the illiteracy rate of women is still highly compared to that of men, and entrenched attitudes continue to alienate women from the education system, thus it is perpetuating the gender gap. Furthermore, while women are generally less fortunate than their male counterparts, women living in urban areas and some core areas tend to fare better than those living in rural and suburban areas (Syafarudin, 2021). In recent years, school enrollment rates for children aged 13–15 and 16–18 have increased sharply in Indonesia. It is not only in urban areas but also in rural areas. The study found that the disappearance of the gender gap in secondary school enrollment between 1993 and 2007 contributed significantly to the increase in overall enrollment rates. The findings also show that children living in wealthier communities and communities with a high proportion of enrolled children are more likely to attend school. Finally, various school characteristics were shown to be neither strongly correlated nor consistent with school participation (Takahashi, 2011).

There are various micro-economic problems. One of which is the level of household consumption. If we discuss the level of household consumption, the scope is broad. Therefore, this article discusses in a narrower scope, namely household consumption, especially spending on school fees. Another variable is age and gender to the level of education of children, especially in Indonesia. School fees in this study consist of school fees, equipment and transportation costs. In the previous article, several factors that influence education have been described. The explanation behind the author discussing the level of household consumption to prioritize children's education is already in the explanation. If the level of consumption for school fees is higher, it will affect the level of education of children. In addition, age and gender are still a polemic, especially the problem of education gaps due to gender. This article aims to see whether there is an effect of school fees, age and gender on the education level of children in Indonesia. We can see whether the level of inequality in Indonesia is still in the high category or has decreased.

## METHOD

This type of research discusses causality or commonly referred to as causal analysis. This study aims to determine whether there is an influence between school fees, gender and age on the level of education of children, especially in Indonesia. This study uses data from IFLS 5 (Indonesian Family Life Survey 5) where the data can be accessed on the website [www.rand.org](http://www.rand.org) so that the data includes secondary data. The data is processed using STATA software.

The population criteria referred to by the researcher are children aged 15 to 25 years, where the data is adjusted to IFLS 5. The purposive sampling method was applied in this study because the data used had met the required requirements. After the data reduction, the sample used was 2,601 respondents. The dependent variable in this study is the level of education of children in Indonesia. The independent variables are school fees, age and gender. The variable of school fees consists of school fees, equipment and transportation costs, while the age variable consists of samples aged 15 to 25 years who meet the requirements and the gender variable consists of men and women. In detail, the data is contained in the IFLS 5 questionnaire. Regression analysis technique was used in this study with the aim of knowing the effect of the independent variables, namely school fees (X1), age (X2), gender (X3) with the dependent variable being the child's education level (Y). The regression model equation is:

$$Y = \alpha + \beta X_1 + \beta X_2 + \beta X_3 + e$$

Notes:

Y= child's education level

X1= school fees

X2= age

X3= gender

The hypotheses proposed by the researchers to be tested in this study are:

- 1) The level of consumption of school fees has a significant effect on the level of education of children in Indonesia.
- 2) Age has a significant effect on the level of education of children in Indonesia.
- 3) Gender has a significant effect on the level of education of children in Indonesia.

## RESULT

The purpose of this study is to determine how much influence school fees, age, gender have on the education level of children in Indonesia. Children's Education Level is the dependent variable. School fees, age, gender are independent variables. In addition, the respondents in question are children who are 15 to 25 years old and provide information as needed in this study. IFLS 5 respondents included in these qualifications amounted to 2.601 people. The statistical results of data processing in this study are as follows

**Result Description**  
**Table 1. Statistic Result**

Variable	Min	Max	Mean	Std. Err
School Fees/ School Year	40.000	1.980.000	14.06101	.2670307
Age	15	25	17.25759	.0452607

Source: Data processed from IFLS 5

The results of the description of the data that have been selected and in accordance with the conditions determined by the researcher are samples aged 15 to 25 years. Other requirements are samples that are still active students and registration. The results of these statistics show that the school fees incurred by each household member within a period of one month are a minimum of Rp40.000,00 and a maximum of Rp1.980.000,00. The statistical results show that every household pays attention by spending money to meet their children's school needs.

#### School Fees

The school fees referred to in this variable are the costs that each individual spends on school fees. School fees in this variable consist of school fees, equipment and transportation costs. In the distribution of this statistical data grouping, the number of individuals in spending costs for education levels is as follows:

**Table 2. Statistics Results Description Of Education Level**

Education Level	Total per individual
Don't have degree	14 (0,54%)
Elementary School : SD/MI/Paket A	455 (17,49%)
Junior High School : SMP/MTs/ Paket B	1.646 (63,28%)
Senior High school : SMA/SMK/MA/Paket C	91 (3,5%)
Diploma degree (D1, D2, D3)	392 (15,07%)
Bachelor degree (S1/S2/S3)	3 (0,12%)
<b>Total</b>	<b>2.601 (100%)</b>

Source: Data processed from IFLS 5

From these data, we can conclude that the individuals who spend the most money are at the SMP/MTs/Package B level, as many as 1,646 children with a percentage of 63.28%. The minimum fee is Rp40.000,00 and the maximum is Rp1.980.000,00 each academic year.

#### Age

**Table 3. Statistics Results Of Age Distribution By Level Of Education**

Edu	Age											Total
	15	16	17	18	19	20	21	22	23	24	25	
1	8	5	1	0	0	0	0	0	0	0	0	14
2	339	72	29	9	4	0	1	0	0	0	1	455
3	339	455	415	261	127	29	9	6	2	1	2	1.646
4	0	0	2	17	16	12	20	10	5	3	6	91
5	0	0	7	50	69	57	53	61	49	33	13	392
6	0	0	0	0	0	0	0	0	0	1	2	3
	686	532	454	337	216	98	83	77	56	38	24	2.601

Source: Data processed from IFLS 5

The data shows that child respondents in Indonesia from the age of 15-25 years have an average number of almost the same at each level. However, the age distribution has the highest number at the age of 15 years and the least at the age of 25 years. The number of respondents in the study was 2.601 consisting of men and women. From the results of the description, it is stated that the number of male respondents is more than female respondents. The results also show that there is no significant disparity in continuing education for women and men.

#### Results of Regression Analysis

Regression analysis is used in this analysis with the aim of knowing the effect of the Y variable on X. The Y variable in this study is the level of education and the X variable is the cost of education (X1), age (X2), and gender (X3). The data in this study used STATA version 12 software. The regression results are presented in the table 5.

## Gender

Table 4. Statistical results of gender description

Edu	Male	Female
Don't have degree (1)	7	7
Elementary School : SD/MI/Paket A (2)	261	194
Junior High School : SMP/MTs/ Paket B (3)	847	799
Senior High School : SMA/SMK/MA/Paket C (4)	28	63
Diploma (D1, D2, D3) (5)	171	221
Bachelor Degree (S1/S2/S3) (6)	1	2
Total	1.351	1.286

Source: Data processed from IFLS 5

Table 5. Results of Regression Analysis

Variable	Coefficient	Error Standard	Probability
Constant	-1.67393	0,0913166	0,000
Education Fee	0,0128807	0,0009059	0,000
Age	0,2623645	0,0053413	0,000
Sex	0,0599368	0,0113635	0,000
R <sup>2</sup>	0,5923		
N	2.601		
F counts	1257,49		

Source: Data processed from IFLS 5

Based on the results in the table above, the regression analysis equation is as follows:

$$Y: -1,67393 + 0,0128807 \text{ school fees} + 0,2623645 \text{ age} + 0,0599368 \text{ gender}$$

According to the results of the regression analysis above, it can be concluded that the cost of education, age and gender have a positive effect on the level of education of children in Indonesia.

## 1) Simultaneous Test

The simultaneous test of this research is in the form of an f test, this test is used to test the level of significance between the independent variable and the dependent variable. These results show the calculated F value of 1257,49 with a probability error rate of 0,000. This means that school fees, age, gender affect the level of education of children in Indonesia.

## 2) Partial Test (T Test)

The results of the partial test (t test) are as follows:

- The test on the variable of school fees on the level of education shows a probability value of t of 0,000 with prob. t <0,05. This means that school fees have an effect on children's education in Indonesia.
- Test on the age variable to the level of education shows a probability value of t of 0,000 with prob t <0,05. This means that age has an effect on children's education in Indonesia.
- Test on the gender variable to the level of education shows a probability value of t of 0,000 with prob t <0,05. This means that gender has an effect on children's education in Indonesia.

3) Coefficient of determination (R<sup>2</sup>)

The result of the coefficient of determination (R<sup>2</sup>) is 0,5923. This means that the variables of school fees, age and gender have an effect of 59,23%. The remaining 40,77% is influenced by other variables not explained in this study.

## DISCUSSION

Based on the results of the regression analysis, it can be concluded that the cost of education, age and gender have a positive effect on the level of education of children in Indonesia. The detailed explanation will be discussed by the researcher one by one. The results of the regression analysis equations are as follows:

$$Y: -1,67393 + 0,0128807 \text{ school fees} + 0,2623645 \text{ age} + 0,0599368 \text{ gender}$$

Testing on the effect of the level of consumption costs on the education level of children in Indonesia produces an error rate smaller than the expected significant level in this study ( $0,000 < 0,05$ ). This shows that the results of this study are in accordance with the hypothesis which reads "consumption levels affect the level of children's education in Indonesia". The regression coefficient for the level of consumption of school fees is 0,0128807. From this statement, it can be concluded that for every increase in one level of education level, households must spend an average of Rp0,0128807. The level of cost consumption for schooling is calculated based on the average sample taken by the researcher. The sample used by the researcher is aged 15 to 25 years, still in school and the households still needs to pay for education. The average cost incurred is still relatively small, but the level of consumption of school fees has a positive influence on the education level of children in Indonesia. The factor that causes the average cost incurred is still relatively small because the data has not separated children who receive subsidies or scholarships and children who have to pay independently for their education. The results of this study are the same as the human capital theory theory, which shows that the decision to continue with higher education is an individual decision without external interference. According to Poteliene (2014) states that continuing education to a higher level requires additional costs that adjust, including school fees, transportation costs, and other supporting costs. The thing that must be considered is that the government must have an important role in this, for example the government provides subsidies for school fees or things that can support education.

Testing on the effect of age on children's education level in Indonesia produces an error which is smaller than the expected significant level in this study ( $0,000 < 0,05$ ). This shows that the results of this study are in accordance with the hypothesis which reads "age has an effect on children's education level in Indonesia." Age regression coefficient is 0,2623645. From the statement, it can be concluded that the age distribution of 15—25 years at each level of education is 0,2623645. According to the data, the most common age distribution for each level of education is at the junior high school level. Based on W. W. McMahon and A. P. Wagner explained that related to the non-monetary returns to higher education, they stated that the higher the level of education, which means that the length of time they were in school will have a significant effect on the return of costs that have been spent on attending school.

Testing on the effect of gender on the level of education of children in Indonesia produces an error which is smaller than the expected significant level in this study ( $0,000 < 0,05$ ). This shows that the results of this study are in accordance with the hypothesis which reads "gender has an effect on children's education level in Indonesia". The regression coefficient for sex is 0,0599368. From this statement, it can be concluded that the gender between men and women is 0,0599368. It means that the number of men and women who attend school is balanced. So that the awareness to continue schooling for boys and girls is now equal. According to Psacharopoulos (2018), it is stated that more women continue their education than men, this is based on the rate of return for men of 8.7% while women are 9.8%. However, this study shows that between men and women have the same level of continuing to higher education, so this is a good start for education in Indonesia.

## CONCLUSIONS

Based on the results of this study, it can be concluded that the level of consumption of school fees, age, and gender significantly affect the children education level. The more costs incurred will affect the level of education of children. This means that education is still becoming the priority in household consumption. The results of the study also state that there is no inequality for those who continue their education for women and men. So that the awareness to continue education for men and women is equal. The results of the study also stated that the age distribution for schooling was at the junior high school level.

The conclusion of the study states that education has become a priority and there is equality between men and women to continue education. The level of consumption of school fees, age, and gender has an influence of 59,23% on the level of education of children in Indonesia. Besides, it is influenced by other factors not explained in this study. Other possible factors that can affect a child's education level are motivation, income, and living environment.

There are some suggestions that need to be considered for further research. First, if the IFLS has updated the latest data, it can be re-examined, so that the results are more leverage. In addition to the variable cost of education, it is better if the education costs incurred by each individual are separated between those who receive school assistance or scholarships and those who do not. So that it will be known on how many samples using personal costs so that the research results will be more significant. Suggestions for further researchers are that researchers may examine other variables that affect the level of children's education. Other variables that can be studied are motivation, income, and living environment.

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