



## The Influence of Local Government Expenditures for Education and and Education Levels on Poverty Levels in Aceh Province

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### A B S T R A C T

*This study intends to assess the impact of government spending and education on poverty alleviation. Panel data is used from 2015 to 2019 in 23 districts/cities in Aceh Province to analyze the impact of government spending on education and the number of graduates in poverty alleviation. The results of the study show that high school/vocational high school graduates and undergraduates contribute significantly to poverty alleviation. This study reveals that government spending on education and graduates at the elementary, junior high, diploma, and master/doctoral levels does not have a direct impact on poverty reduction. This study recommends that the Provincial Government of Aceh provide various alternative secondary education services in accordance with the educational model needed to obtain good human resources in terms of education. In addition, it is hoped that the realization of spending on education can improve or increase access and facilities in areas that still lack facilities and teaching staff so that all Indonesian people get an equal education. Then, the government must start programs such as entrepreneurship training so that graduates are able to open new business opportunities which are ultimately expected to be able to improve the living standards of the people of Aceh Province and get out of the cycle of poverty.*

**Keywords:** Poverty, Local Government Expenditure, Education.

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## INTRODUCTION

Poverty is one of the problems that still occurs in Aceh Province. Poverty seems to be a difficult problem to eradicate even though the Aceh government increases its budget every year. When compared with Indonesia, the poverty rate in Aceh Province ranks 6th after Papua Province (27.74%), West Papua Province (23.01%), NTT Province (21.35%), Maluku Province (18.12%), and Gorontalo Province (16.81%).

As in the Medium National Development Plan (2010), one of the goals of development is to achieve prosperity for the Indonesian people. To achieve this goal, the government annually allocates funds to finance development activities and programs that are primarily focused on increasing people's welfare and reducing absolute poverty. Government spending can positively influence economic growth and reduce poverty through the provision of social services and infrastructure facilities necessary for rapid economic development.

During the 1990s, the World Bank's Poverty Reduction Strategy Program (PRSP) emphasized investment in the health, education and social sectors to increase the formation of human resources to reduce poverty. With these expenditures, the government can help increase community capacity and increase community skills and productivity. This kind of thing is able to provide better job opportunities and can increase people's incomes and bring people out of the cycle of poverty. According to BPS Aceh Province, between 2015 and 2019 the Aceh government only succeeded in reducing the poverty rate by 1.76%, from 17.08% to 15.32%.

Not only the level of poverty and government spending, but the progress of a country or a region is also seen from the level of educational attainment of its people. Because the graduation rate can

also be one of the factors that affect the poverty rate. According to Hernandez (2011) all children living in poverty do not graduate from high school. When many poor children do not graduate from school, they will not be able to get out of the cycle of poverty because they do not have more ability to compete in the world of work to lift their economy. In the human resource approach, education is considered an important instrument in poverty alleviation. As said by Ronsen (2004) that humans who have the provision of productive skills and knowledge obtained from education in themselves are human beings with capital and also according to Holland (2017) investment in education can increase the productivity of human resources. Government spending on education is carried out with the aim of investing in human resources with the hope of producing quality human resources in the future and reducing poverty. Human resources which are an investment in terms of education are needed, so the government must be able to build a good educational facility and system. Therefore, this study will examine how local government spending on education and education levels affect poverty rates in Aceh Province.

Perceptions of poverty vary widely, ranging from the inability to meet basic needs and updating the situation, the lack of business opportunities, to include social and moral aspects. Generally, poor people cannot read because they cannot study, do not have a job, are worried about the future, or have lost a family member due to illness. Poverty is incapacity, marginalized and lacks a sense of freedom (Ravallion, 2001).

Quoted from the World Bank Institutes (2005) the most well-known definition of poverty is made by Sen which states that welfare comes from the ability to function in society. This means that poverty arises when people lack key abilities leading to inadequate incomes

and education, poor health, insecurity, low self-esteem, a sense of powerlessness, and an absence of rights such as freedom of speech. Poverty is also a political issue as it relates to the allocation or distribution of resources and reflects the impact of past and present policy choices (Meth, 2006). Family income is more strongly related to children's abilities and achievements than to their emotions. Children who experience poverty during the preschool and early years have lower school completion rates than those who are not poor (Gunn and Duncan, 1997). Suparmako (2002) defines government spending as spending to finance government activities aimed at obtaining overall social welfare by utilizing several resources, products, and money. According to the Indonesian Budget Law (2008) that government expenditure is a national expenditure used to handle central government spending and local government spending. This expenditure can be divided into three groups, namely by organization, fungus, and type. What is meant by government expenditure by function is government expenditure which is used one of them for the function of education.

Wilhelm and Fiestas (2005) state that government budget allocation is an important instrument for economic development and reducing absolute poverty. Investment in continuing education contributes greatly to GDP growth. According to Dahmardeh and Tabar (2013) government spending has direct and indirect effects on poverty. The direct result can be seen from the benefits received by the poor from spending on employment and security plans. While the indirect effects can be seen in the planting of rural infrastructure, agricultural analysis, health, and education that can foster agricultural and non-agricultural development leading to greater job opportunities and income for the poor as well as cheaper food.

Government spending on basic

health and education services and certain types of infrastructure is widely considered to reduce poverty by increasing the productivity and income potential of poor households (Anderson et al, 2017). The impact of government spending on poverty also depends on how it is financed (Mckay, 2004). The impact of government spending on poverty also varies, according to the sector of expenditure, how well it is targeted, and how it is financed.

According to human capital theory, investment in education will lead to the formation of human capital, which is an important factor of economic growth. Education instills skills and productive knowledge that can transform humans into more valuable human capital (Tilak, 2010). Schultz (1961), Becker (1964), Mincer (1975), and Denison (1962) place education in a high place in growth theories. Education is considered an important instrument and contributes to poverty reduction, income distribution, and others. Then, an increase in income will further generate a demand for education and an increase in the level of education which will ultimately improve the community's economy.

According to Tilak (2010) the relationship between poverty and education is further strengthened because education and other basic needs reinforce each other. Njong (2010) states that the probability of being poor decreases as the level of education increases. Poverty can be a major obstacle to educational attainment because poverty involves a lack of empowerment, knowledge, opportunities, and access to income and capital (Gounder and Xing, 2012). Investments in education and the benefits of schooling can increase the skills and productivity of poor households and this can increase wage levels and affect socio-economic outcomes. Several studies that have been conducted by Auster et al (1969), Fuchs (1980), Leigh (1981), Lee (1982), Friedman (2002) have found a significant

positive relationship in education and also the socio-economic benefits achieved from education.

### METHODOLOGY

This study uses annual secondary data from government spending on education, education, and poverty for the period 2015 to 2019. The data is taken from the Central Bureau of Statistics for Aceh Province (Statistik Welfare of the People of Aceh Province) and the Directorate General of Fiscal Balance. To analyze the impact of government spending on education and education on poverty reduction in Aceh Province, SysGMM is used and the most appropriate functional form is as follows:

$$kit = \phi ikit - 1 + \beta 1 \ln PPit + \beta 2 Psdit + \beta 3 Psm pit + \beta 4 smait + \beta 5 PDiplomait + \beta 6 PS1it + \beta 7 PS2it + \beta 8 PS3it + \gamma i + \eta it$$

Where k is the percentage of poor people to measure poverty.  $\ln PP$  is the natural log of government spending in the education sector to measure government spending. P is the percentage of school graduates starting from elementary school graduates, junior high school graduates, high school graduates, diploma graduates, bachelor graduates, master graduates and also doctoral graduates to measure education.  $i$  is a district/city in Aceh Province.  $t$  is the year.  $\beta$  is the estimated parameter value for the independent variable.  $\phi i$  is an indicator of beta convergence.

Education is one of the most important determinants of poverty levels. An educated society has more opportunities for better jobs that increase incomes and help raise living standards. The calculation of the education variable in this study is based on the level of graduates starting from elementary school graduates, junior high school graduates, high school graduates, diploma graduates, undergraduate graduates, master's degrees and also doctoral graduates in

23 districts/cities in Aceh Province for the period 2015 - 2019 in percent obtained from the Central Statistics Agency (BPS) of Aceh Province. Government Expenditure in the Sector of Education, is the realization of the budget regional income and expenditure in the field of education in the 23 districts/cities in Aceh Province in Rupiah units (Rp) during 2015 – 2019. This figure transformed into natural logarithmic form. Poverty is related to inadequate access according to economic, socio-cultural, political and participation in associations (Nurwati, 2008). The data used on the poverty variable in this study are the poor in 23 districts/cities in Aceh Province for the period 2010 – 2018 in percent originating from the Central Statistics Agency (BPS) of Aceh Province.

### RESULT AND DISCUSSION

In the GMM dynamic panel method there is an overidentifying test which aims to determine the validity of a model used in research. This test can be identified by looking at the value of the Hansen/Sargan test that emerges from the GMM regression results. A model is said to be valid if the value of the Hansen/Sargan test is above the significance level of 1%, 5% and 10%. The GMM system estimation results in Table 1 show the p – value of the Hansen test in the equation of 1.00. This shows that the overidentifying model test is said to be valid because the value that appears is at a level above all levels of significance. Furthermore, there is the Difference in Hansen statistic which consists of the Hansen test GMM, difference GMM, Hansen test iv, difference iv which has a similar purpose to see the validity of an instrument. The GMM system estimation results in Table 1 show that the p values of the four statistics are above the significance level of 1%, 5%, and 10%. In the equation in Table 1, the GMM Hansen test value is 0.997; GMM difference of 0.990; Hansen test iv of 0.936; and the

difference iv is 1.00. Then the Arellano – Bond test is a way to test whether a model is indicated to have autocorrelation or not by looking at the value of the z distribution – Arellano – Bond statistics or also known

**Table 1.**  
**Test Result Specifications**

Hansen test of overid. restrictions	Hansen test GMM	Difference GMM	Hansen test iv	Difference test iv	AR (2)
1,00	0,997	0,990	0,936	1,00	0.905

**Table 2**  
**Results of Analysis of the Effect of Government Spending and Education on Poverty Reduction**

Variabel	Coefficient	Prob
Lag k	0.765	0.000
PP	- 0.25	0.114
SD	- 0.068	0.036
SMP	- 0.072	0.050
SMA/SMK	- 0.162	0.043
Diploma	0.342	0.342
Sarjana	- 0.234	0.053
Magister/Doktoral	- 0.765	0.412
_Cons	14.987	5.877

The lag of the endogenous variables explained by the  $y_{it-1}$  variable is significant at the 1% level with a p-value of 0.000 ( $H_0$  is rejected) in each equation. This means that the output is inertial because it has a correlation between time or in the year  $t$  analysis it is still influenced by the year  $t - 1$ . According to this equation, government spending on education has a negative relationship with poverty. This insignificant coefficient proves that government spending on education does not have a major impact on poverty in Aceh Province. This finding is not in line with previous findings which state that government spending should be able to reduce poverty directly or indirectly. The results of the analysis show that graduates of SD, SMP, Diploma and Masters/Doctorate level have no significant relationship to poverty alleviation which indicates that the people of Aceh Province who go to school and

graduate from Elementary School, Middle School, Diploma, and Masters/Doctoral level do not have much effect on reducing rates. poverty in Aceh Province. Then for SMA/SMK graduates it has a negative and significant coefficient so that it supports the expectations of this research. The results showed that if SMA/SMK graduates increased by 1% then poverty in Aceh Province could decrease by 16.2%. While Bachelor graduates have a negative and significant coefficient. It's the same as high school/vocational high school graduates whose results are in accordance with what the author wants. Where an increase in S1 graduates of 1% can reduce the poverty rate by 23.4% in Aceh Province.

**CONCLUSION**

The main purpose of this analysis is to be able to see the impact of government spending and education on poverty

reduction. The results showed that poverty was negatively related to government spending, with elementary, junior high, high school/vocational and masters/doctoral graduates while having a positive relationship with Diploma graduates. This implies that SMA/SMK graduates and Bachelor graduates have significantly contributed to poverty reduction. Government spending on education, and graduates of SD, SMP, Diploma, and Masters/Doctoral degrees do not have a significant impact on poverty reduction. One possible explanation for this situation is the failure of government spending to increase the poor's access to educational facilities and increase their chances of graduating from higher levels of education. The government should initiate a program to raise awareness of the importance of education among the poor. From the results of this study, it is hoped that the government will optimize government spending on education so that there will be more graduates at the SMA/SMK and Bachelor level. Then, the government must start programs such as entrepreneurship training so that later graduates are able to open new business opportunities which in turn are expected to be able to improve the living standards of the people of Aceh Province and get out of the poverty circle.

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