

# Budget Policy to Eradicate Education Inequality in Indonesia

Arianto Adi Nugroho<sup>1</sup>, Edy Yusuf<sup>1</sup>, and Firmansyah<sup>1,\*</sup>

<sup>1</sup>Department of Economics, Universitas Diponegoro Jl. Prof. H. Soedarto, S. H. Tembalang, Tembalang, Kota Semarang, Jawa Tengah 50275

**Abstract.** Education is one of the important factors of economic development. In recent implementation, the education cannot be obtained equally by the people of Indonesia. Based on Law no. 23/2014 on Local Government, education is the responsibility of the local governments, and there is a potency of inequality in the implantation of the education development, due to the different budget capabilities in each region. This study aims to determine the level of convergence of local government budgets in Indonesia. Using statistical estimation models, and data covering of 33 provinces in Indonesia, the study finds that the convergence on total revenue will occur on all Indonesian region for a long time but not in education spending. The policy implications on education in Indonesia are different across regions.

Keywords: **Education; Convergence; Government Budget; Local Government.**

## 1. Introduction

Education is one significant factor to achieve sustainable development of a nation. Without developing the education system, a nation will fall behind the globalization. The effects of globalization require skillful human resource to adapt with rapid growth of science and technology[1]. In order to achieve such level of proficiency, education becomes the primary capital.

According to The Constitution of Republic Indonesia, education is a rightful essence for every citizen of Indonesia instead of a privilege for certain groups or social classes. Each of these citizens possesses equal chances of qualified education. Further, Constitution of National Education System states that it must be applied democratically and justly, without discrimination, with high reverence of human rights, spirituality, culture, and diversity.

According to Hakim[2], educational right is a portion of basic human rights that is absolute and necessary to fulfill others, such as economic, social, and cultural rights. Consequently, because of the lack of education, their knowledge will also be limited. In terms of environment, poor education will affect their knowledge about environmental concern. It becomes an individual main capital to make a living. The higher the education level of an individual, the better chances they have to pursue a career. In the end, educational convergence becomes important in the distribution of welfare.

## 2. Methodology

This research uses sigma convergence methodology by using data of total income and education expenditure 33 provinces in Indonesia during year 2005 until 2014

Based on Sarue[7] sigma convergence analysis is a time series analysis which is used to observe the convergence of observation variable which done by coefficient calculation variation.

$$CV = \frac{\sqrt{\frac{\sum (G_i - G)^2 P_i}{P}}}{G} \quad (1)$$

Above is a translation of the concept of sigma convergence, in this case **CV** is the coefficient of variation, **G<sub>i</sub>** is the total variable income and education expenditure of the provincial government used in this study, **G** represents the average of each variable, **P<sub>i</sub>** is the number of residents of each province of observation, **P** is the number of residents in all provinces of observation. the smaller the coefficient value variation from year to year then the variable is converged

## 3. Discussion

Expansion of access and quality becomes one major issue in educational sector. Indonesia is a nation with diverse characters of districts. These diverse characters of geographical, residential, and economical factors contribute to varied accomplishment of education. Central government will need to interfere to assist the progress of equal education[1].

Funding and financial are under the responsibility of central government as an implementation of The Constitution 1945, Article 31. It has been applied under Constitution No. 20 of 2003, Article 46:1 stating that educational funding is under mutual responsibility of central government, local government, and the citizens of Indonesia. Chapter 49:1 also states that 20% of spending from central government and 20% from local government, excluding teacher payroll and government

\* Corresponding author: [firansyah@live.undip.ac.id](mailto:firansyah@live.undip.ac.id)

service tuition, must be allocated to educational sector. Having constitutional foundations, educational funding should have earned more attention and awareness from central government[6].

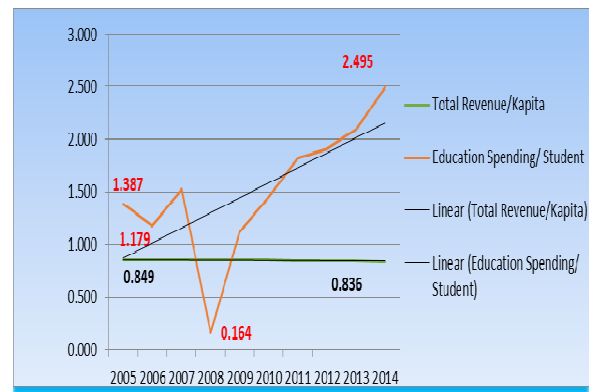
The importance of budget in the development process makes the convergence of educational budget becomes important in the process of equitable education in Indonesia. Budget is the key for the government to accommodate diversities among district and to balance the development of education. According to Skidmore and Deller (2008)[2], convergence of budgeted policy may be presented using tax convergence and government spending. This relation is induced by portions of government spending that are generated from tax income, thus revenue convergence will have impact on government spending

The following diagram shows that the revenues of local governments from 2005 to 2014 tended to convergence. Their capabilities to fund their spending were considered equal to their growth. This convergence was represented by the decrease of coefficient of variation (CV) in total revenue curve. It declined from 0.849 in 2005 to 0.836 in 2014. A study from Dekiawan (2014)[3] agreed that all variables of local revenue bears a tendency to be more even, as represented by the decrease of CV year after year.

Different trend could be identified on CV of educational spending. It had fluctuations from 1.3867 (2005) to its lowest point of 0.16398 (2008) and soared to its highest of 2.4951 (2014). It indicates that educational spending level in every district has a tendency of disparity. Growth rate of educational spending per student from local government budget remains unequal.

The difference of sigma convergence between local revenue and educational spending indicates the weak relevance of both variables. Local revenue is still incapable to affect educational spending. Local governments have their own versions of policies about local spending, especially on education. This situation may lead to greater gaps of educational level among districts.

The following table shows varied policies on educational spending by contrasting the scale of educational spending to total spending of local governments from 2005 to 2014. It can be generalized that local governments have not put educational spending in the correct proportion. Only DKI Jakarta out of 33 provinces that meets the standard of 20% of local government budget, and that was not effective before 2010. Such condition becomes the cause of CV escalation on sigma convergence.



**Fig 1.** Sigma convergence of income per capita and local spending on education in Indonesia 2005 to 2014

#### 4. Conclusion

This study aims to analyze the convergence rate of educational spending among districts in Indonesia. The more evenly the level of budget convergence, the more evenly the level of education development in the regions. Local governments hold the responsibility for the distribution, they are expected to provide regulations and policies that will assure educational accessibility and quality for every citizen without discrimination.

Estimation results are generated from analyzing the sigma convergence on variables of local government revenue and variables of educational spending. This approach concludes that convergence takes place on the variables total revenue, confirmed by the declining value of CV. These results explain that the regional capability in financing regional expenditure is considered more equitable in term of growth. On the other hand, results from educational spending analysis shows the increasing value of CV. That also concludes that educational spending rates among districts has a tendency of disparity, and proportion of educational spending per student remains unequal.

For reasons mentioned above, educational convergence should no longer be constrained by financial capacity of local governments. Because it will affect many sector, such as their concern about environment. The provincial governments need to redefine the budgeted expenditure process for proper education to be equitable. In the following years, their financial planning must obey the constitution about proportional spending on education. And lastly, because financial availability is not an issue, they should construct and execute educational scheme and programs that are universally executable despite the diversities among districts.

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TABLE 1 PROPORTION OF EDUCATIONAL SPENDING TO TOTAL SPENDING OF LOCAL GOVERNMENTS  
2005 TO 2014<sup>4</sup>

No	Province	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Aceh	11.79	10.95	5.29	13.17	14.65	13.10	12.75	10.59	6.27	10.28
2	Sumut	5.42	6.03	5.16	4.01	5.70	7.48	8.48	5.37	3.07	3.87
3	Riau	16.60	13.95	16.18	15.02	20.87	19.88	3.17	12.62	8.82	7.79
4	Jambi	7.47	10.16	13.24	13.73	13.33	13.77	11.27	12.17	8.82	8.67
5	Lampung	3.81	4.21	6.81	3.99	16.75	13.62	9.79	10.53	7.68	7.67
6	DKI Jakarta	10.69	9.80	24.03	12.52	12.76	26.21	29.11	29.92	28.12	28.12
7	Yogyakarta	10.61	9.17	9.52	6.45	10.86	11.26	15.99	12.88	10.24	9.82
8	Jatim	7.95	5.01	3.91	3.91	4.61	3.24	3.62	3.67	3.67	2.98
9	Kalbar	5.35	5.34	5.07	5.80	7.10	5.42	5.02	3.02	3.85	4.27
10	Kalteng	6.93	6.92	8.46	8.06	14.70	11.75	14.09	9.74	8.45	10.38
11	Kalsel	10.19	8.22	8.28	8.90	13.06	14.70	14.48	6.12	8.93	8.73
12	Kaltim	2.22	4.93	10.77	8.39	7.90	6.49	4.96	3.71	6.23	6.55
13	Sulsel	5.08	6.44	4.47	4.08	3.84	3.80	3.55	2.72	2.06	3.91
14	NTB	4.87	8.35	7.86	3.10	2.68	2.60	2.36	1.95	1.82	2.17
15	NTT	7.33	7.31	6.68	5.91	6.33	7.09	6.74	4.24	3.63	2.38
16	Malut	2.95	4.04	2.88	3.40	4.01	4.72	2.67	2.81	3.17	3.40
17	Banten	4.38	3.53	4.47	4.86	6.21	7.42	6.20	6.05	4.98	4.65
18	Bangka belitung	0.84	1.39	8.45	4.32	3.20	6.92	2.65	2.98	3.66	4.20
19	Gorontalo	5.39	4.64	8.61	9.55	2.33	9.14	11.35	11.53	10.89	7.21
20	Sulbar	2.06	3.20	4.59	3.09	5.43	5.75	5.57	5.29	4.27	4.64
21	Bengkulu	5.92	6.61	6.28	6.57	9.33	7.29	7.18	8.60	8.99	9.51
22	Sulteng	7.88	7.88	7.24	7.02	8.26	7.50	7.46	5.51	6.15	5.75
23	Papua Barat	1.13	2.43	8.19	3.32	6.00	4.45	3.78	3.46	3.18	4.16
24	Jateng	3.88	0.39	4.77	4.22	4.32	5.42	5.06	2.68	2.50	2.32
25	Jabar	8.19	7.77	3.83	4.33	8.33	9.82	6.92	4.66	4.75	3.23
26	Papua	4.81	5.07	3.94	2.86	4.66	5.35	5.09	4.19	2.72	1.38
27	Sulut	3.06	6.40	7.39	6.86	8.59	7.33	9.37	6.81	5.91	4.52
28	Sultenggara	4.86	4.55	6.74	5.18	9.87	10.13	4.03	4.43	4.29	4.29
29	Bali	6.39	5.74	0.97	4.14	6.89	8.71	6.16	6.01	5.51	5.51
30	Maluku	6.25	8.51	13.09	14.58	11.39	14.12	12.88	7.29	5.86	6.71
31	Sumbar	5.02	14.81	6.48	10.31	10.01	9.55	6.13	3.98	4.57	4.40
32	Sumsel	8.59	6.28	14.37	8.91	16.72	18.40	8.36	5.93	5.85	5.71
33	Kepri	6.71	7.51	18.28	18.39	13.80	11.22	12.31	11.11	13.59	9.25