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The Measurement of Regional Education Inequality in Indonesia

Ayesha Tantriana
Jehada Rosmaniar
Sri Hartini Rachmad
Ardi Adji

Equal access to education is basic human right which Indonesian government has been striving to achieve. To reach equality on education in all levels of income, a good policy on demand and supply of education is needed (Digdowiseiso, 2010). There have been some new education policies in Indonesia on increasing the access to education. In order to monitor and evaluate the programs, an indicator to measure its effectiveness is needed. Therefore, this paper aims to measure education inequality in the provincial level in Indonesia by calculating Gini index developed by Deaton (1997).

The measurement in this paper uses the data from National Social and Economic Survey (SUESENAS) conducted by BPS Statistics Indonesia between 2011 and 2017 in 34 provinces. The direct method of calculating education Gini was implemented and Lorenz curve on the indirect method was also applied in order to visualize the educational gap from time to time. The population categories by Barro and Lee (1991) was not implemented as BPS-Statistics Indonesia has its own concept. BPS-Statistics Indonesia divides population into six categories of school attainment including never been to school, not complete primary school, complete primary school, complete junior secondary school, complete senior secondary school, and complete university. Therefore, only six levels of schooling were applied in the Gini calculation. Aside from calculating the Gini index by province, this paper also analyzes the educational gap by gender and by residential type in 2011 and 2017.

Even though, Jakarta, the capital city, has the lowest level of education inequality, the result shows that there was only a slight decrease in the Gini index of Jakarta. It was 0.21 in 2011 and 0.18 in 2017. Meanwhile, Papua becomes the province with highest level of inequality. The Gini index of Papua was 0.54 in 2011 and 0.46 in 2017. Nonetheless, there has been a significant decrease in the educational gap in Papua. Indonesia, in all, also experienced a decrease in the education inequality over time. This indicates that the Indonesian government program on extending compulsory education to grade 12 (senior secondary school) was effective.

The result also shows that education equality in terms of gender improved significantly from 2011 to 2017. Both male and female Gini index fell significantly from 0.28 in 2011 to 0.26 in 2017 and 0.36 in 2011 to 0.32 in 2017. The bigger gap on female means that there should be more effort on improving female education equality, specifically in rural areas in Indonesia with conservative perspective towards education for women. In terms of the residential type, there was also a decrease in the Gini index from 2011 to 2017. Both urban and rural Gini index fell from 0.27 in 2011 to 0.25 in 2017 and 0.34 in 2011 to 0.31 in 2017. The effort to improve the education equality in rural area outweigh the effort in urban area as the resources such as school infrastructure was not provided very well in rural areas.

The indirect method constructs the Lorenz curve with the cumulative percentage of schooling years on the vertical axis and the cumulative percentage of population on the horizontal axis. As calculated in the direct method, the education inequality in Indonesia, overall, decreased slightly from 2011 to 2017. The improvement in the education equality in terms of gender was proven by the female Lorenz curve that moved closer to male curve in 2017. Besides the gender, the education equality in terms of residential type was also proven to be better with the narrower gap between urban Lorenz curve and rural curve. All in all, the Indonesian governments should pay more attention on the empowerment of female and rural people by increasing both quality and quantity of the school.

As this paper only covers the measurement of the Gini index due to the limited data, the need to incorporate inequality and other aspects of development such as income inequality, poverty, gender gap, etc is essential in the future studies. In order to have more complex research on this issue, expanded dataset is absolutely needed.