

# The Role of Government Spending on Basic Education at the District Level in Indonesia

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## Abstract

The local and central governments of Indonesia have committed to allocating 20 percent of their budgets to education since 2009. Most of the central government spending on education has been transferred to the local governments at the district level to support the compulsory nine-year basic education (primary and junior secondary levels). Despite the increased financial resources, disparities remain in the education outcomes of the districts in Indonesia. Since basic education is decentralized at the district level, it is imperative that the local governments have a significant role in the provision of basic education at the district level. This paper analyzes how government spending has affected education outcomes at the district level in Indonesia. Some empirical studies show that the increasing government spending does not necessarily increase education outcomes at the district level. There is a plausibility that that local government negatively affects education outcomes. This paper not only examines government spending and education outcomes at the district level in Indonesia, particularly since 2009, but also extends the analysis by conducting a field study involving four selected districts in Java, Indonesia: Bogor, Majalengka, Sleman, and Kulon Progo. The paper finds that, despite the increased government spending on education, the capacity of the local governments to manage and transform the financial resources into education outcomes is crucial. The education outcomes depend on not only the amount of spending, but how well the money is spent.

Keywords: education, government spending, local government, districts, Indonesia

## 1. Introduction

The Government of Indonesia has consistently prioritized education in the country's development. Since the early 2000s, the education system and financing in Indonesia have substantially changed. Due to the decentralization in 2001, the managerial and financial authorities of the nine-year basic education have been decentralized at the district level.<sup>1</sup> Furthermore, Law No. 20 of 2003 on the National Education System stipulates a nine-year compulsory basic education (six years of primary and three years of junior secondary education) for all citizens of Indonesia aged seven to fifteen and requires central and local governments to allocate a minimum of 20 percent of their budget to education.<sup>2</sup> To assure implementation of the compulsory education, a prominent education program, the school operational assistance,<sup>3</sup> was implemented in 2005, whereby the central government directly finances schools at the primary and secondary levels in the districts. In addition, to ensure implementation of education services at the district level, the central government enacted a minimum service standard on education for the local governments.<sup>4</sup>

Since 2009, the central government has allocated 20 percent of its budget to education, of which approximately 60 percent on average is transferred to the local governments. The local governments at the district level have also allocated a minimum of 20 percent of their budget to education. Despite the significant increase in expenditure on education, especially for basic education at the district level, several issues and challenges persist. According to a series of reports on education in Indonesia (World Bank, 2009, 2012a, 2013a, 2013b; Ministry of Education and Culture of Indonesia [MoEC] 2013; OECD and ADB, 2015), the implementation of basic education at the district level involves challenges relating to the disparities of student accessibility, the quality of teaching skills, a poor association between the number of teachers and learning outcomes, and a high dropout ratio in the transition from primary to junior secondary level. Moreover, apprehension toward the local government's capacity to support the national education program stems from the lack of transparency and accountability of the local governments' financial management.

Some existing empirical studies on the relationship between government spending and education at the district level in Indonesia after the decentralization provide mixed results on the impact of government spending on education at the district level in Indonesia. For instance, Kristiansen and Pratikno (2006) showed that household respondents perceived an improvement in the quality of education after the decentralization. Kaisar et al. (2006) and Lewis and Pattinasarany (2009) found similar positive perceptions of household respondents on public service deliveries, including education, after the decentralization. However, Lewis and Pattinasarany (2009) highlighted that respondents' responses to the satisfaction of primary education provision should be interpreted with caution because they are subject to asymmetric information and perception bias. Simatupang (2009) confirmed that, after the decentralization, significant positive changes occurred in education outcomes, especially in primary education.

Other studies present opposing views. For example, Zufri and Oey-Gardiner (2012) showed that, after the decentralization, the central government's spending on education had a significant positive impact on education outcomes compared to the local government spending. Suryadarma (2012) showed that public spending on education is more effective in improving education outcomes in less corrupt districts, and Al-Samarrai and Cerdan-Infantes (2013) found that, despite the increased budget on education in Indonesia, concerns remain regarding the quality of education, teachers' hiring and deployment, and the capacity of local governments to allocate their resources to education.

This paper reviews government spending on education in Indonesia, from both central and local governments, at the district level. This paper not only examines the government spending and education outcomes at the district level in Indonesia based on updated secondary data and literature reviews, but also extends the analysis by conducting field research. The field study involves conducting in-depth interviews and discussions with government officials from the MoEC, the Ministry of Finance (MoF), and from four selected districts in Java, Indonesia: Bogor, Majalengka, Sleman, and Kulon Progo.<sup>5</sup> This paper is part of ongoing research that combines quantitative and qualitative approaches and argues that an increase in government spending on education at the district level in Indonesia does not necessarily improve education outcomes (Jasmina and Oda, 2017).

The remainder of this paper is structured as follows. Section 2 presents a brief overview of government spending and education outcomes at the district level in Indonesia. Section 3 describes the methods used in the field study and presents the profiles of the selected districts. Section 4 presents the findings from the field study of selected districts, which are discussed further in Section 5, and Section 6 concludes the analysis.

## 2. Government Spending and Basic Education at the District Level in Indonesia

### 2. 1. Government Spending on Education

Following the decentralization in 2001, local governments at the district level have been responsible for providing education services for primary and secondary education. Figure 1 shows the formal education system in Indonesia, which distinguishes the roles that the central and local governments have in education in Indonesia. While the authority of formal education from early childhood education to secondary education (both junior and senior) is decentralized at the district level,<sup>6</sup> formal higher education is centralized. In addition to a regular formal education, Indonesia has an Islamic education system, which is under the authority of the central government (from early childhood education to higher education).

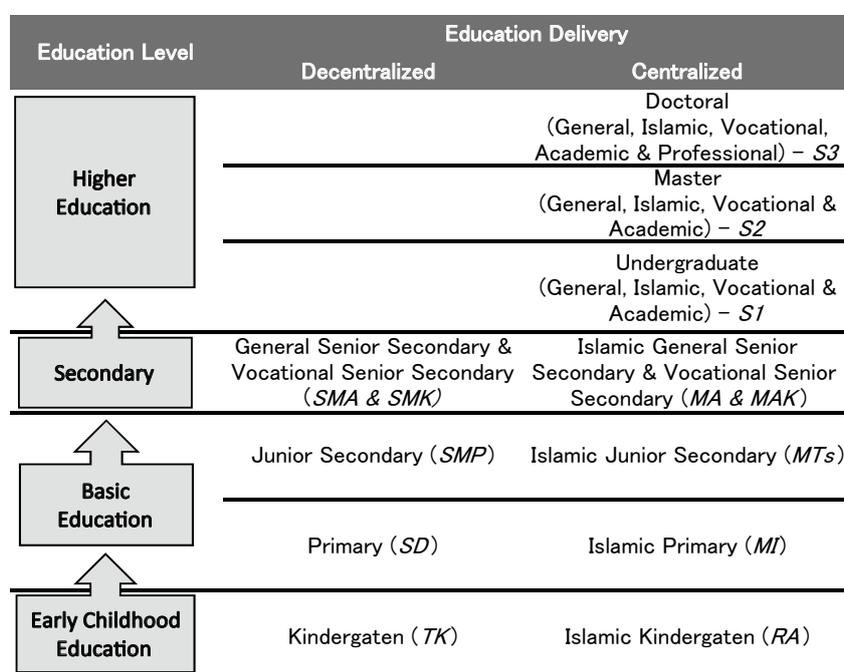


Figure 1. Formal Education System in Indonesia after Decentralization

Source: Adapted from the MoEC (2013).

To ensure implementation of the basic education at the local level, the central government transfers funds for education to the local district governments using one of the following four methods:<sup>7</sup> (1) a general allocation fund (*Dana Alokasi Umum*), (2) a special allocation fund (*Dana Alokasi Khusus*), (3) an allowances for teachers (*Tunjangan Profesi Guru*), and (4) a school operational assistance program (*Bantuan Operasional Sekolah*). The general allocation fund is a general purpose grant given to the local governments as part of the local government's revenue. The local governments can spend the fund at their discretion based on the local needs, such as for the salaries of local government officials and teachers.<sup>8</sup> The special allocation fund for education is a grant given to the local governments that can only be utilized for specific purposes in the education sector in accordance with the central government's guidelines. The additional allowances for teachers are transfers of funds for certified teachers, and the school operational assistance program is designed to support operational activities of schools at the district level.

Figure 2 presents the mechanism of the central government’s spending on education, illustrating a national budget of the fiscal year 2016. As can be seen, of the 20 percent of the national budget assigned for education, about 64 percent is transferred to the local governments, mostly at the district level, to finance basic education. Most of the central government’s spending is in the form of general allocation funds (33.9 percent) and allowances for teachers (17.2 percent). The local governments at the district level spend the general allocation fund at their discretion. On the other hand, even though special allocation funds and the allowances for teachers are pooled into the local government’s budget, the local governments must follow specific guidelines from the central government when using the funds. The school operational assistance program, which has been transferred to the provincial government to channel to schools at the district level, also requires local governments at the provincial and district levels to follow specific guidelines from the central government.<sup>9</sup>

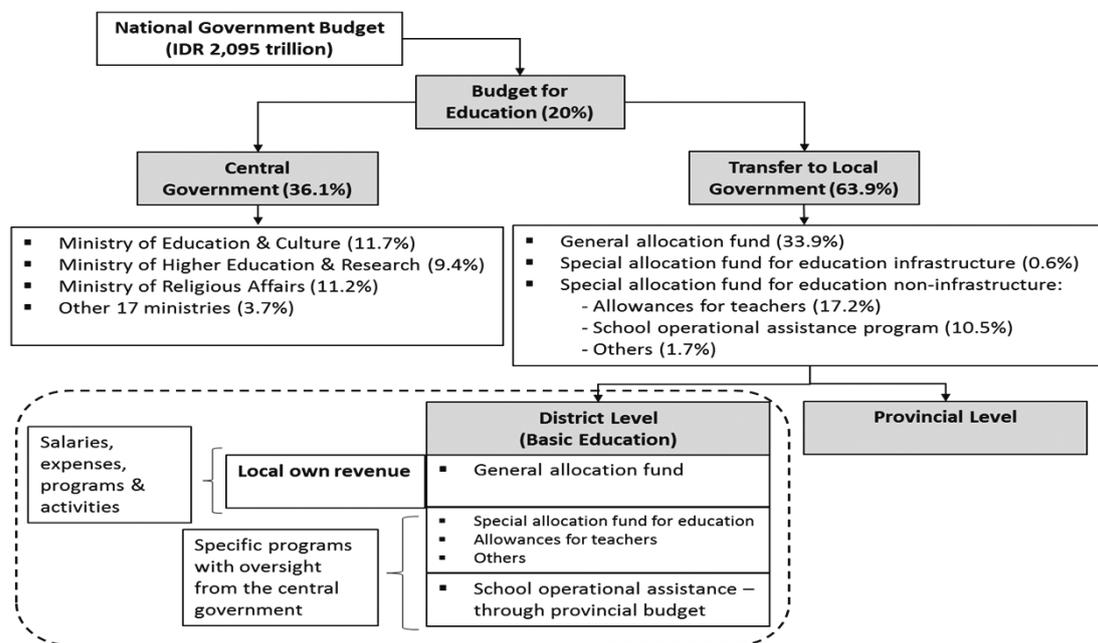


Figure 2. Education Funding Mechanism to the District Level in Indonesia

\*The data shows an illustration of government spending in 2016

Source: Adapted from MoEC (2013), World Bank (2013a), Government Budget of Indonesia, MoF (2016)

Table 1 shows the trends of the central government’s spending on education. Between 2010 and 2016, the central government’s spending on education nearly doubled from Indonesian Rupiah (IDR) 225.2 trillion to IDR 419.2 trillion (approximately equivalent to between USD 17 billion and USD 32 billion).<sup>10</sup> The district government’s spending on education also increased during the same period. In 2010, local governments spent an average of 30.8 percent of their budget on education, which increased to 33.1 percent in 2015. Between 2010 and 2015, district governments allocated, on average, 34 percent of their spending to basic education.<sup>11</sup> Thus, during the period, the central and local governments spent an enormous amount of their budgets on education at the district level.

**Table 1. Government Spending on Education in Indonesia, 2010–2016**

	2010	2011	2012	2013	2014	2015	2016
1) Central government spending (trillion IDR)	225.2	267.0	310.8	345.3	375.5	409.1	419.18
Percentage to total national spending	20.0%	20.2%	20.1%	20.0%	20.0%	20.0%	20.0%
a) Managed by central government	97.5	108.0	124.2	131.2	136.7	154.2	151.3
Percentage to central government spending on education	43.3%	40.4%	40.0%	38.0%	36.4%	37.7%	36.1%
b) Transferred to local governments	127.7	159.0	186.6	214.1	238.8	254.9	267.9
Percentage to central government spending on education	56.7%	59.6%	60.0%	62.0%	63.6%	62.3%	63.9%
2) District government spending (trillion IDR): 491 districts*	100.9	123.0	154.2	175.5	178.9	188.28**	NA
Percentage to district government spending	30.8%	38.9%	34.9%	33.3%	33.0%	33.1%	NA

\*Based on number of districts in 2010, excluding spending of the provincial governments and the capital city of Jakarta.

\*\*Preliminary data

Source: Author' calculation with the data from the Ministry of Finance of Indonesia.

## 2. 2. Education Outcomes

Owing to the significant increase in financial resources on education in Indonesia, it is worth investigating whether education outcomes have improved in the country. Suharti (2013) examined the trends of education in Indonesia between 1993 and 2009 and indicated significant improvements in education outcomes during the period. The most recent data from 2010 to 2016 shows that, at the national level, education outcomes in Indonesia have continued to improve, particularly regarding access to primary and junior secondary education. Table 2 presents the gradual improvement of the net enrollment rates and mean years of schooling in Indonesia at the national level.<sup>12</sup>

**Table 2. Selected Education Outcomes in Indonesia, 2010–2016**

	2010	2011	2012	2013	2014	2015	2016
Net enrollment ratio of primary education (%)	94.76	91.07	92.54	95.59	96.45	96.7	96.82
Net enrollment ratio of junior secondary education (%)	67.73	68.36	70.93	73.88	77.53	77.82	77.95
Net enrollment ratio of senior secondary education (%)	45.59	48.07	51.88	54.25	59.35	59.71	59.95
Mean years of schooling	7.46	7.52	7.59	7.61	7.73	7.84	7.95

Source: BPS-Statistics of Indonesia ([www.bps.go.id](http://www.bps.go.id))

However, close examination of the district level highlights that disparities persist among the mean years of schooling and the net enrollment ratios. Based on data from the National Socioeconomic Survey of Indonesia in 2015,<sup>13</sup> 40.2 percent of the districts have a net enrollment ratio below the national level for primary education, with a standard deviation of 6.13. The condition is worse for junior and senior secondary education, where nearly 52 percent of the districts have net enrollment ratios below the national level, and a standard deviation of 11.32. As for the mean years of schooling, around 50 percent of the districts still fall below the national level. Figure 3 illustrates disparities in the net enrollment ratio of junior secondary education among districts in 2014. Areas with the darkest shade are districts with net enrollment ratios above the national level; these are mostly located in the western part of Indonesia. At an early stage of the decentralization, Kristiansen and Pratikno (2006) found significant differences between the rates of access to education among districts. The presented data show that, despite improvements in access to education at the national level, differences among districts remained in 2015.

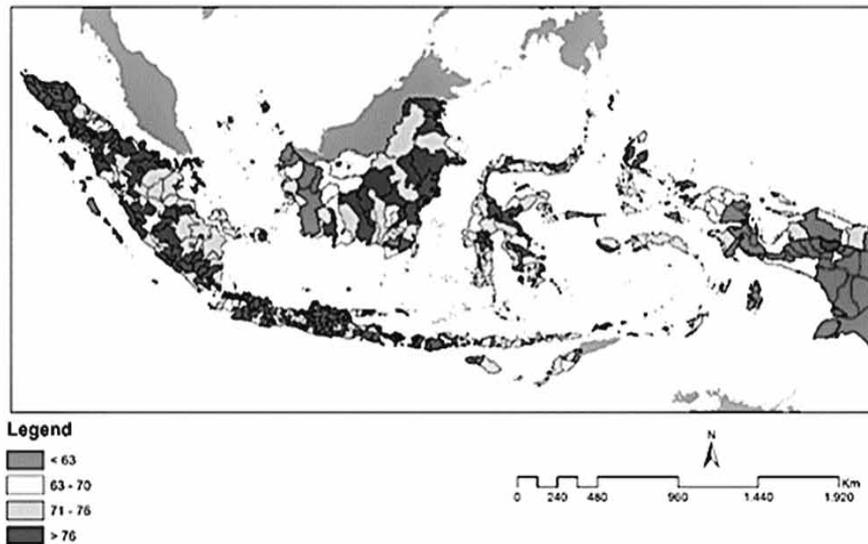


Figure 3. Net Enrollment Rates of Junior Secondary Education at the District Level, 2014

Source: Universitas Indonesia, derived from the National Socioeconomic Survey-BPS Statistics, 2014

At the basic education level, the role of public education is dominant in Indonesia. According to the MoEC, in 2016, 89.5 percent of the schools at the primary level were public schools, and 87.5 percent of students at the primary level attended public schools. Lower percentages were found at the junior secondary level: 60.4 percent of schools were public schools, and 74.8 percent of students attended public schools. Therefore, government spending on education at the district level is imperative in improving basic education in Indonesia.

Figure 4 plots the net enrollment ratios for primary and junior secondary education in 2010 and 2015, with the average ratio of government spending on education to gross regional domestic product (GRDP) during 2010–2014 for each district in Indonesia.<sup>14</sup> The trend lines showing relations between the net enrollment ratio and the average amount of government spending indicate improvements in the net enrollment ratio between 2010 and 2015 at both the primary and junior secondary levels. The improvement is even more apparent for junior secondary education. However, negative patterns are observed in the trends. Districts with higher shares of government spending on education do not necessarily have higher net enrollment ratios. The data show a plausible negative relationship between government spending and the net enrollment ratio at the district level in Indonesia.

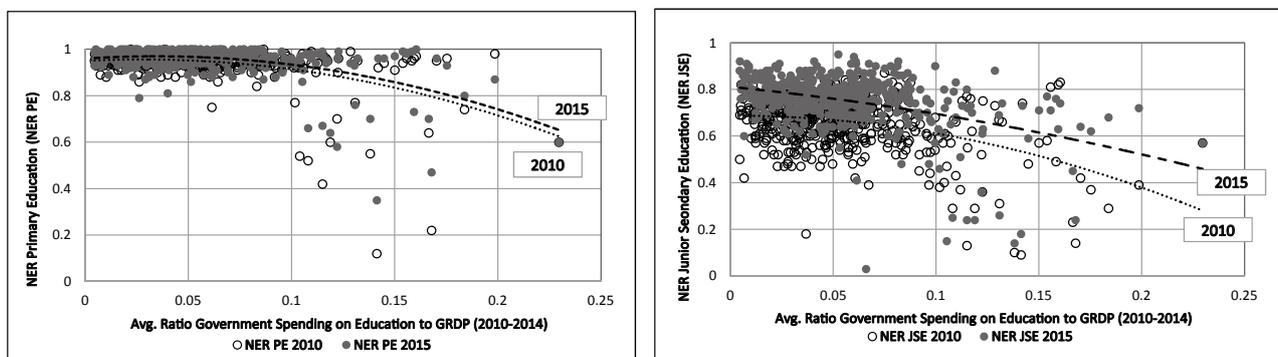


Figure 4. Net Enrollment Ratio and Government Spending on Education at the District Level, 2010 and 2015

Source: Author's calculation with the data of National Socioeconomic Survey-BPS Statistics and MoF of Indonesia.

An empirical analysis applying cross-district data of Indonesia during 2010–2015 by Jasmina and Oda (2017) shows that combining central and local government spending on education has no significant impact on the change in the net enrollment ratio at the primary and junior secondary education levels. However, disaggregating the spending, the local government spending has a negative impact on the change in the net enrollment ratio, whereas the central government has a positive and non-linear impact. Though basic education in Indonesia has improved under the authority of local government after the decentralization, disparities among education outcomes remain. A possible negative relationship exists between local government spending and the net enrollment ratio, indicating that higher government spending does not necessarily improve education outcomes.

### 3. Methodology

#### 3.1. Selection Methods

To comprehend the relation between local government spending and basic education at the district level in Indonesia, in-depth interviews with government officials from the central government and local governments were conducted, including government officials from the MoEC and MoF in Jakarta at the central level, Indonesian researchers, and local government officials from the local education offices and local development planning agencies of four selected districts at the district level. Table 3 presents details of the interviewees.

**Table 3. List of the Interviewees**

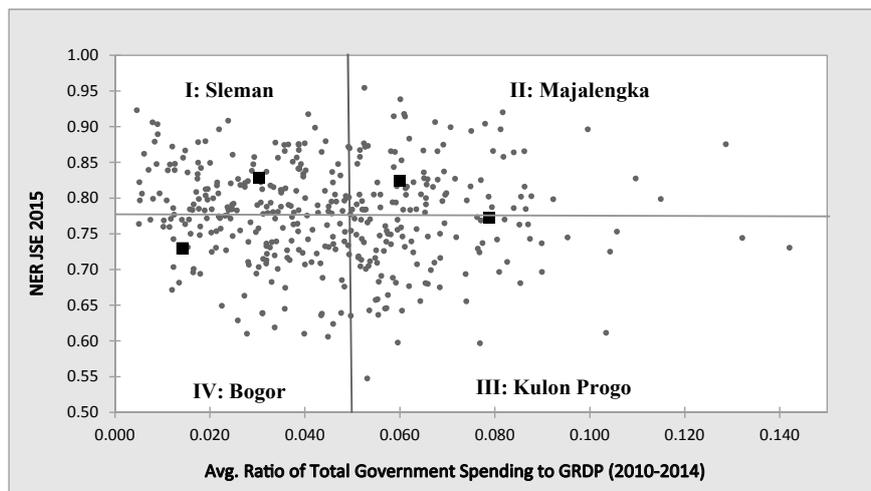
Institutions	Interviewees	Date	Venue
<b>Central Government</b>			
1) Ministry of Education and Culture			
a Directorate General of Teachers and Education Personnel	Head of Sub-Directorate and team Directorate of Development of Basic Education Teacher	1-Feb-17	MoEC Office, Jakarta
b Research and Development Center	Head of the Center	21-Feb-17	MoEC Office, Jakarta
2) Ministry of Finance			
a Directorate General of Fiscal Balance	Head of Sub-Directorate for Special Allocation Fund	7-Mar-16	MoF Office, Jakarta
b Directorate General of Treasury	Head of Sub-Directorate	2-Feb-17	MoF Office, Jakarta
<b>Local Governments</b>			
1) Bogor			
a Local Education Office	Head of the Office and team	3-Feb-17	Local Education Office, Bogor
b Local Development Planning Agency	Head of Social Welfare Division	3-Feb-17	Local Development Planning Agency, Bogor
2) Majalengka			
a Local Education Office	Head of the Office and team	7-Feb-17	Local Education Office, Majalengka
b Local Development Planning and Research Agency	Head of the Agency	7-Feb-17	Local Development Planning and Research Agency, Majalengka
3) Sleman			
a Local Office of Education, Youth, and Sport	Head of Planning and Evaluation Division	17-Feb-17	Local Office of Education, Youth, and Sport, Sleman
b Local Development Planning Agency	Head of Education, Youth, Sport, and Culture Division	17-Feb-17	Local Development Planning Agency, Sleman
4) Kulon Progo			
a Local Office of Education, Youth, and Sport	Head of Planning Division	14-Feb-17	Local Office of Education, Youth, and Sport, Kulon Progo
b Local Development Planning Agency	Head of Government and Social Welfare Division	14-Feb-17	Local Development Planning Agency, Kulon Progo
<b>Researchers*</b>			
Faculty of Economics and Business, Universitas Indonesia	FZ, LYI, WS	25-Jan-17	Plaza Sentral Senayan, Jakarta
	DS	26-Jan-17	Ratu Plaza Office Tower, Jakarta

\*Names of the researchers are initials.

Source: Author.

The district selection process was as follows. Based on the available data of 491 districts in Indonesia during 2010–2015,<sup>15</sup> the districts located in the eastern part of Indonesia were purposely excluded (districts in the Province of East Nusa Tenggara, Maluku, North Maluku, Papua, and West Papua), leaving 407 districts.<sup>16</sup> The remaining districts were divided into four quadrants based on the net enrollment ratio of the junior secondary education in 2015 and the average ratio of government spending on education to the GRDP during 2010–2014 (see Figure 5). Quadrant I represents districts with net enrollment ratios higher than the national average, but government spending on education lower than the national average. Quadrant II represents districts with higher than national average net enrollment ratios and government spending on education. Quadrant III represents districts with net enrollment ratios lower than the national average, but government spending on education higher than the national average. Last, Quadrant IV represents districts with lower than national average net enrollment ratios and government spending on education.

Furthermore, one district in each quadrant located on the main island of Java was selected. The districts were selected in line with certain economic similarities, including middle-income regencies, located in Java, with stable economic growth. However, the districts differ in terms of size, population, poverty rate, government spending on education, and education performance. Notably, the districts selected in Java could introduce a bias because the basic education performance of most districts in Java is relatively better than those outside of Java.



**Figure 5. Net Enrollment Ratio of Junior Secondary Education and Average Government Spending on Education**

Note: The highlighted dots are the selected districts.

Source: Author.

Thus, there are two regencies were selected in the Province of West Java (Bogor and Majalengka), and two regencies in the Province of DI Yogyakarta (Sleman and Kulon Progo). Figure 6 presents the selected districts and their locations.

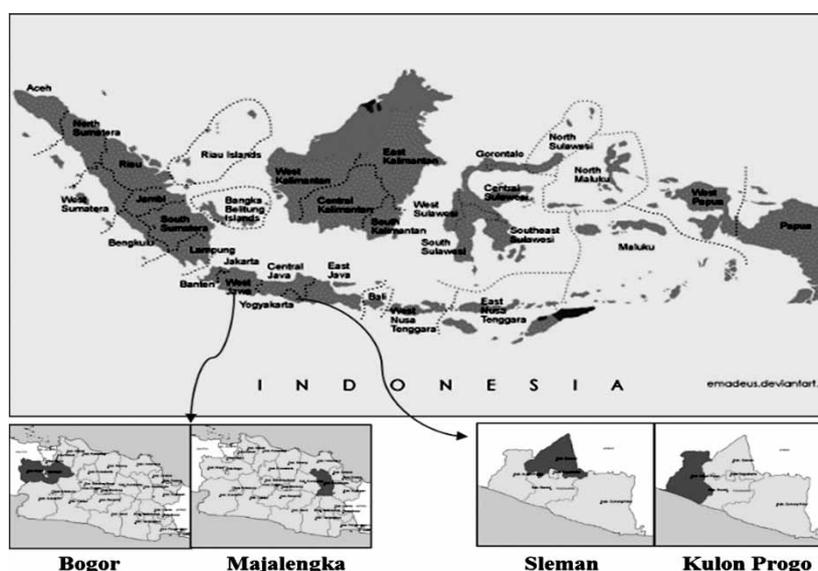


Figure 6. Location of the Selected Districts

Source: The map of Indonesia is retrieved from <http://d-maps.com/>; and the maps of the selected districts are from the Local Education Balance Sheet 2016, MoEC.

### 3. 2. Profiles of the Selected Districts

This section briefly describes the socioeconomic condition of the selected districts. Table 4 presents a summary of the data.

Table 4. Summary Profiles of the Selected Districts, 2015

	Bogor	Majalengka*	Sleman	Kulon Progo
Area (km sq)	2,663.8	1,204.2	584.0	586.3
Number of sub-districts	40	26	17	12
Population	5,459,668	1,182,109	1,167,481	412,611
Per capita GRDP (IDR 000 current price)	30,788.5	16,236.2	28,913.7	18,570.3
Real GRDP annual growth (%)	6.1%	4.9%	5.3%	4.6%
Poverty headcount ratio (%)	9.0%	13.4%	9.5%	20.6%
Share of households living in urban area**	80.0%	45.0%	92.0%	23.0%

\*Data in 2014 \*\*calculated from the SUSENAS data 2015

Source: Data from each respective Regency in Figures 2016, BPS-Statistics of the Regency

The Regency of Bogor is located in the Province of West Java and is adjacent to the southern part of the capital city of Jakarta. Bogor is mostly urbanized and is a relatively large regency, with about 50 percent of the GRDP of the regency coming from the manufacturing sector with the main production in metal, textiles, and agroindustry. Wholesale-retail trade and construction are also prominent in Bogor’s economy. The regency performs a relatively high economic growth of 6.1 percent in 2015, with a poverty ratio of nine percent.

The Regency of Majalengka is located in the eastern part of the Province of West Java. About 25 percent of the

GRDP of the regency comes from the agricultural sector, followed by a significant contribution from the wholesale-retail trade, manufacturing sector, and construction (comprises about 40 percent of the GRDP). With an economic growth of 4.9 percent in 2015, the regency is expected to develop further in the future, since an international airport is currently under construction in the regency. However, Majalengka Regency has a relatively a high poverty ratio of 13.4 percent.

Located in the north of the Province of DI Yogyakarta, the Regency of Sleman is considered one of the most developed regencies in the province with a relatively higher per capita income and a lower poverty ratio than other districts in the province (Sleman, 2016). The economy of Sleman grew by 5.3 percent in 2015 with major contributions from manufacturing, construction, and accommodation-food services. The poverty rate of Sleman is a relatively modest 9.5 percent.

The Regency of Kulon Progo is located in the western part of the Province of DI Yogyakarta. In 2015, the economy of Kulon Progo grew by 4.6 percent, and one-fifth of the economy is from agriculture, forestry, and fishery. The wholesale-retail trade and manufacturing sector also make a considerable contribution to the economy of the regency. Kulon Progo has a relatively high poverty rate of 20.6 percent, among the highest in the Province of DI Yogyakarta.

#### 4. Findings from the Selected Districts

This section presents a qualitative analysis of the relationship between the government spending and basic education. Table 5 summarizes the education outcomes of the selected districts in 2016. Regarding the education outcomes at the primary and junior secondary levels in the selected districts, only Majalengka was below the national level. As for the net enrollment ratios of primary education, three districts had almost the same ratios as the national ratio (96.8 percent); the exception was Kulon Progo (91.7 percent). For the net enrollment ratios of junior secondary education, all the selected districts were above the national level of 77.9 percent. Overall, all the selected districts had better education outcomes than the national level, with Sleman as the best performing district.<sup>17</sup>

**Table 5. Education Outcomes of the Selected Districts, 2016\***

	Bogor	Majalengka	Sleman	Kulon Progo	National*
Mean years of schooling*	7.8	6.8	10.3	8.4	7.9
Net Enrollment Ratio					
Primary	95.8%	96.3%	95.8%	91.7%	96.8%
Junior Secondary	78.5%	82.5%	88.3%	87.7%	77.9%

\*The data differs with the one in Figure 5, since the data presented here is the most updated one in 2016.

Source: Local Education Balance Sheet 2016, MoEC of Indonesia

Table 6 presents indicators on basic education at the selected districts in 2016. Bogor had the largest number of schools, teachers, and students, and Kulon Progo was the smallest among selected district. In terms of classroom condition, the MoEC (2016) reported severe damage in 13 percent of the classrooms in Majalengka, which is the highest in the selected districts, while in Sleman, only 1.5 percent of classrooms were severely damaged.

**Table 6. Basic Education in the Selected Districts, 2016**

	Bogor	Majalengka	Sleman	Kulon Progo	National*
Number of students					
Primary	511,067	115,874	88,825	34,118	25,618,078
Junior Secondary	197,854	39,299	36,770	15,327	10,105,416
Number of teachers					
Primary	18,484	6,363	5,003	2,673	1,586,127
Junior Secondary	8,241	2,244	2,151	1,074	622,781
Student teacher ratio					
Primary	28	18	18	13	16
Junior Secondary	24	18	17	14	16
Average score of teachers' competence test	59.1	58.9	67.0	65.9	56.7
Number of schools					
Primary	1,780	666	504	335	147,503
Junior Secondary	612	102	110	65	37,763
Percentage of classrooms that are severely damaged	5.5%	13.0%	1.5%	3.0%	NA

Source: Compiled from the Local Education Balance Sheet 2016, MoEC of Indonesia

Table 6 shows the student-teacher ratios (an average number of students per teacher), which is often used for comparing the quality of schooling.<sup>18</sup> The ratios varied among the selected districts: the lowest was Kulon Progo, and the highest was Bogor for both primary and junior secondary education. The Government Regulation on Teachers (No. 74 of 2008) states that the ideal standard student-teacher ratio is 20 for primary and junior secondary education.<sup>19</sup> Three out of four selected districts had ratios slightly below the government standard, which might indicate an excess supply of teachers in these districts. To measure the quality of teaching, in 2015, the MoEC performed a teachers' competence test to map the nationwide competence of teachers' pedagogic skills and professional knowledge. According to the MoEC (2016a), based on a scale of 0–100, the national average score was 56.7. As shown in Table 6, the highest district was Sleman (67), followed by Kulon Progo (65.9), Bogor (59.1), and Majalengka (58.9), which are all above the national average.

Regarding the amount of government spending among the selected districts, Bogor spent the highest amount on education, which is understandable because Bogor is the largest district in this study. However, when comparing the share of local government spending on education with the total spending, Kulon Progo was the highest (see Table 7).

**Table 7. Local Government Spending on Education at the Selected Districts\*, 2016**

	Bogor	Majalengka	Sleman	Kulon Progo
Local Government Budget (billion IDR)	7,015.4	2,806.1	2,498.8	1,477.7
Local Government Budget on Education (billion IDR)	1,939.7	1,010.3	841.1	555.5
<i>(percentage to Local Government Budget)</i>	27.6%	36.0%	33.7%	37.6%
1) Local government own sources (billion IDR)	899.5	279.3	230.8	137.3
<i>(percentage to Local Government Budget on Education)</i>	46.4%	27.6%	27.4%	24.7%
2) Transfer from central government (billion IDR)	1,040.2	731.0	610.3	418.2
<i>(percentage to Local Government Budget on Education)</i>	53.6%	72.4%	72.6%	75.3%
- general allocation fund	496.9	367.9	321.3	208.2
- special allocation fund on education	14.5	5.3	1.6	1.4
- allowances for teachers	506.4	346.7	270.4	198.5
- others	22.4	11.1	17.0	10.1

\*The local government spending is defined as all the spending on education through the local government budget. Hence, it includes local government own revenue and transfers from the central government of (i) general allocation fund, (ii) special allocation fund on education; and (iii) additional allowances for teachers. The spending for school assistance program is not transferred through local government budget at the district level, but through the local government budget at the provincial level.

Source: Compiled from the Local Education Balance Sheet 2016, MoEC of Indonesia

Distinguishing the spending between local and central government shows that the major sources of local government spending on education come from the central government. The central government transfers accounted for 70–75 percent of the local government spending on education in the selected districts (except for Bogor, which is only around 54 percent of the spending). Thus, all of the selected districts rely on the central government’s transfer of funds as sources of spending for education. In addition, to support the district governments’ management of the basic education, the Province of DI Yogyakarta provides a provincial transfer for education at the district level in the form of the school’s operational assistance program. Hence, Sleman and Kulon Progo receive additional funds from the provincial government to support their basic education.

Comparing the total government spending on education to GRDP, Sleman has a relatively lower share of the government spending on education, yet Sleman has the highest education performance. Despite an excess supply of teachers, Sleman enjoys the benefits of competent teachers and adequate school facilities. Furthermore, according to World Bank (2013b), from 50 districts that were evaluated, Sleman had one of the best local education governance indexes.<sup>20</sup> Kulon Progo, with a relatively high share of local government spending on education, also performed well in basic education. However, although also having competent teachers and adequate school facilities, Kulon Progo has a severe excess supply of teachers and has a relatively high poverty rate.

Similar to Kulon Progo, Majalengka has a relatively good education performance with a high share of local government spending on education. Compared to the other selected districts, Majalengka has the lowest per capita income, with a slightly high poverty rate. However, compared to Sleman and Kulon Progo, the teachers’ competence in Majalengka is relatively low, and the district has the highest percentage of severely damaged classrooms. Among the selected districts, Bogor has the lowest education performance and the lowest share of local government on education. Despite a considerable good economic performance, the district suffers from a certain education condition, such as a lack of qualified teachers, a high dependence of temporary contract teachers, and a low teachers’ competence level. The Regency of Bogor as a big district with a large number of students and schools face more challenges in their attempts to enhance the education outcomes in the district. Figure 7 presents the overall findings of the four selected districts.

<p><b>I: Sleman</b></p> <ul style="list-style-type: none"> <li>▪ Income per capita: 28.9 (thousand IDR)</li> <li>▪ Poverty rate: 9.5%</li> <li>▪ Net enrollment of junior secondary education: 88.3%</li> <li>▪ Government spending: 33.7%</li> <li>▪ Moderate excess supply of teachers</li> <li>▪ Avg. score of teachers competence test: 67</li> <li>▪ Severely damaged classrooms: 1.5%</li> <li>▪ Additional transfer from the provincial government</li> </ul>	<p><b>II: Majalengka</b></p> <ul style="list-style-type: none"> <li>▪ Income per capita: 16.2 (thousand IDR)</li> <li>▪ Poverty rate: 13.4%</li> <li>▪ Net enrollment of junior secondary education: 82.5%</li> <li>▪ Government spending: 36.0%</li> <li>▪ Excess supply of teachers</li> <li>▪ Avg. score of teachers competence test: 58.9</li> <li>▪ Severely damaged classrooms 13%</li> </ul>
<p><b>IV: Bogor</b></p> <ul style="list-style-type: none"> <li>▪ Income per capita: 30.8 (thousand IDR)</li> <li>▪ Poverty rate: 9%</li> <li>▪ Net enrollment of junior secondary education: 78.5%</li> <li>▪ Government spending: 27.6%</li> <li>▪ Lack of teachers</li> <li>▪ Avg. score of teachers competence test: 59.1</li> <li>▪ Severely damaged classrooms 5.5%</li> </ul>	<p><b>III: Kulon Progo</b></p> <ul style="list-style-type: none"> <li>▪ Income per capita: 18.6 (thousand IDR)</li> <li>▪ Poverty rate: 20.6%</li> <li>▪ Net enrollment of junior secondary education: 87.7%</li> <li>▪ Government spending: 37.6%</li> <li>▪ Moderate excess supply of teachers</li> <li>▪ Avg. score of teachers competence test: 65.9</li> <li>▪ Severely damaged classrooms: 3%</li> <li>▪ Additional transfer from the provincial government</li> </ul>

Figure 7. Summary Findings of the Selected Districts

Source: Author.

## 5. Discussions

The findings show that the government of Indonesia has spent a significant amount of money on the district level to improve the standards of basic education nationwide. Though the national data shows improvements in the level of basic education in Indonesia, data at the district level show clear disparities in the education outcomes among the selected districts in Indonesia. Furthermore, districts with higher spending on education do not necessarily achieve better education outcomes because other factors might influence the impact of the spending on education at the district level. The following discussion argues that the capacity of local governments in managing and transforming the financial resources into education resources might hinder improvements in the provision of basic education at the district level.

Some recent studies have claimed that the local government spending has no impact, or even has a negative impact, on education at the district level. Studies by Schulze and Sjahrir (2014), Kis-Katos and Sjahrir (2014), and Sjahrir et al. (2014) show that, owing to a significant increase in local government spending, public service delivery at the district level including education has improved. However, these studies indicate that the governance at the district level is weak, and most of the spending is allocated to the local government administration (Schulze and Sjahrir, 2014; Kis-Katos and Sjahrir, 2014; Sjahrir et al., 2014). Suryadarma (2012) explored the effectiveness of government spending on education and found that local government spending has a negative impact on the net enrollment ratios in districts with high corruption. Moreover, a report by World Bank (2013b) concluded that a poor capacity of the local government to manage the financial resources for education and a lack of transparency of this financial management might hinder the impact of government spending on education at the district level.

Figure 2 shows that most of the funds for local government spending on education come from the central government transfers of general allocation funds, which the district governments can spend at their discretion on salaries, expenses, programs, and activities in their districts. In their interviews, the local government officials in the selected districts<sup>21</sup> answered that most of the spending on education goes toward salaries for civil servants, especially teachers. Al-Samarrai and Cerdan-Infantes (2013) and World Bank (2013a) reported that about 75 percent of the spending is on teachers' salaries. Similarly, the local government officials of Bogor claimed that 70 percent of their funds are allocated to salaries, and the remaining 30 percent is mostly allocated to refurbish the schools and to cover the salaries of temporary contract teachers. However, in Kulon Progo, around 60 percent of the local government spending is allocated to salaries.<sup>22</sup> Thus, it can be said that the local governments have a limited fiscal capacity in allocating their spending to developing other educational programs and activities.

The central government transfers that are designed for specific purposes are managed more efficiently than general allocation funds because the local governments are required to follow guidelines set by the central government. According to the local government officials during the interviews,<sup>23</sup> although the guidelines of this program is often delayed and might result in a late disbursement of the fund, the local governments manage the funds appropriately. For the school operational assistance program, the funds are spent in accordance with the guidelines provided by the MoEC, which applies a school-based management system, and the district governments face no major obstacles in implementing the funds.

As mentioned in Section 4, there are problems regarding the quantity and quality of teachers at the district level that might hinder improvements to the basic education. Officials of the MoEC and Local Education Offices<sup>24</sup> described these problems as mismatches between the school's needs and the available teachers, the competence of the teachers, and the distribution of the teachers. To overcome teacher shortages, at the early stage of the decentralization, many public schools at the district level recruited temporary contract teachers. According to World Bank (2012c), around

30 to 36 percent of the teachers at the primary and secondary level were hired by schools as temporary contract teachers. As most of these teachers were not recruited through formal procedures and standards, the officials of the MoEC<sup>25</sup> explained that the teachers' recruitment at the district level was not transparent and was mostly decided by personal judgement of school principals, school committees, or local education offices.

The local government officials in all four selected districts raised the issue regarding teachers. For example, in Bogor, approximately 65 percent of teachers in basic education are temporary contract teachers. In Majalengka, nearly 50 percent of teachers from primary to junior secondary level are temporary contract teachers. As a consequence, in addition to salaries for teachers as local civil servants, the local governments have to allocate spending to pay the temporary contract teachers. The salaries, which are set by the local governments and vary across districts, range from IDR 200,000 (approximately USD 15) in Majalengka to IDR 750,000 (approximately USD 56) in Bogor and Kulon Progo per month. All four districts in this study relied heavily on the school operational assistance from the central government to pay the temporary contract teachers' salaries, which are allowed up to 15 percent of the allocated funds (MoEC, 2017).

Despite the significant spending on teaching activities, previous studies, such as the MoEC (2013) and World Bank (2013a), found no relationship between education outcomes and teachers' salaries. Pradhan and de Ree (2014) confirmed that the financial and human resources in the education sector have no impact on the learning outputs at the district level in Indonesia. Suryahadi and Sambodho (2013) further elaborated that poor quality of teaching at the district level in Indonesia is associated with an excess supply of teachers. According to the MoEC (2016b), an excess supply of teachers means that most teachers work less than the standard minimum of 24 hours a week. In 2016, 29 percent of teachers in primary education worked less than 24 hours a week, and among junior secondary education, 81 percent of teachers worked less than the standard hours.

To assure a standard performance and adequate welfare among the teachers, the central government issued a teachers' certification program in 2005 in accordance with Law No. 14 of 2005 on Teachers and Lecturers. The program aims to certify all teachers who have completed a four-year university degree and provide additional allowances equivalent to their basic salary. The central government allocates a significant portion of its budget to education for this program. Table 7 illustrates that the additional allowances for teachers account for around 45 percent of the central government's transfers to the selected districts. Concerns regarding the teacher's certification program were addressed by the officials of MoEC.<sup>25</sup> The program is managed to improve teachers' welfare, but not necessarily their teaching performance. de Ree et al. (2015) analyzed the teachers' certification program in Indonesia and found that while doubling teachers' salary resulted in the teachers' satisfaction with their income, it failed to improve the teachers' efforts and the student learning outcomes.<sup>26</sup> Chang et al. (2014) concluded the following:

Short-run impact of certification on teacher behavior and student learning has been limited...its impact on the education budget has and will continue to be enormous. Failure to address the rapidly rising costs of certification will result in the crowding out of spending in other areas necessary to improve educational quality and further expand access. (p. 177)

## 6. Concluding Remarks

This paper described the effect of government spending on basic education at the district level in Indonesia, particularly after the provision of basic education had been shifted to local governments at the district level, and the central government committed to allocate 20 percent of its spending to education.

First, the paper portrayed government spending and basic education at the national level, which showed that,

although education outcomes have improved at the national level, disparities among the district level remain. This finding suggests a negative relationship between government spending and the net enrollment ratio of basic education during 2010–2015, which has been empirically proven in an ongoing study by Jasmina and Oda (2017).

Second, the paper provides a thorough qualitative analysis based on field research conducted in four selected districts in Indonesia: Bogor, Majalengka, Sleman, and Kulon Progo. The analysis revealed that districts with relatively high shares of government spending on education do not necessarily show better performances in education. Despite underlying socioeconomic conditions, such as income per capita and the poverty rate in the districts, the capacity of the local government to allocate education spending and transform it into education resources is imperative for enhancing basic education at the district level.

Finally, this paper discussed the capacity of the local district governments to manage their financial resources to provide better education services in Indonesia. Most of the central government spending on education at the district level is in the form of general allocation funding. Combined with their local financial resources, the local governments spend this fund on basic education in their respective districts at their discretion. Since most of the local government spending is for personnel, especially teachers' salaries, the local governments have a limited fiscal capacity in allocating their spending to other educational programs. This paper highlights that the capacity of local governments to manage their budget, especially for the discretionary spending, might hinder improvements in the basic education at the district level.

The significant share of local government spending on teachers does not necessarily correspond with improvements in basic education outcomes at the district level in Indonesia. Issues such as an excess supply of teachers, an uneven distribution of teachers among the districts, and the competence levels of the teachers might also hinder improvements in education outcomes. As the authority of basic education has been decentralized, there is no clear monitoring and evaluation mechanism of the recruitment, distribution, and development programs of teachers at the district level.

This paper is part of ongoing research that conducts a qualitative data analysis and examines findings from field research in Indonesia. Combining the findings of this paper with the quantitative analysis, which is beyond this paper, will comprehend the analysis on the role of government spending on education at the district level in Indonesia. Future research is needed to investigate whether the capacity of local governments to manage their financial resources hampers improvements in basic education at the district level and to examine how the quality of teaching in basic education affects the enhancement of basic education in Indonesia.

## **Acknowledgements**

I would like to express my gratitude to Professor Hisaya Oda for his support and advice of this research. I am grateful for the support of KOKUSAITEKI Research Grant of Ritsumeikan University and the Institute for Economic and Social Research, Faculty of Economics and Business Universitas Indonesia for the field study. I also would like to thank Faradina Alifia Maizar, Niken Indar Mastri, and Widyanti Soetjipto for their assistance during the field study. Finally, a sincere appreciation to the resource persons in the field for their valuable insights: the government officials of the MoEC and MoF of Indonesia; the local governments officials of Bogor, Majalengka, Sleman, Kulon Progo; and the experts from Universitas Indonesia. All remaining errors in the paper are my own.

## Notes

- <sup>1</sup> Law No. 32 of 2004 on local governments and Government Regulation No. 38 of 2007 on intergovernmental relations set out the overall framework for the decentralization including the management and implementation of education to the local governments at the district level. The current development of Law No. 23 of 2014 on local governments shifts the authority of senior secondary education to the local governments at the provincial level. Hence, the local government at the district level is responsible for education at the primary and junior secondary levels. In 2015, Indonesia consisted of 34 provinces and 514 districts (416 regencies and 98 cities).
- <sup>2</sup> A six-year compulsory education was first stipulated in Indonesia in 1984 and was extended to a nine-year compulsory education in 1994, based on the Presidential Instruction No. 1 of 1994 (Suharti, 2013). However, it was not yet stipulated that the government would provide and allocate funding on education.
- <sup>3</sup> The program is known as BOS (*Bantuan Operasional Sekolah*) in Indonesian abbreviation.
- <sup>4</sup> The minimum service standard of education is under the Ministerial Regulation No. 15 of 2010 and No. 23 of 2013.
- <sup>5</sup> The field study was conducted between mid-January and the end of February 2017.
- <sup>6</sup> Because of the new law on local government No. 23 of 2014, which started in 2016, the authority to manage senior secondary education has shifted from the district to the provincial governments.
- <sup>7</sup> Under the fiscal decentralization in 2001, three major types of funds are transferred from the central government to the local governments at the district level: general allocation fund, specific allocation fund, and revenue sharing. There is also a central transfer in the form of a special autonomy fund for selected districts. Since 2016, the central government transfer on education is classified into a general allocation fund and a specific allocation funds. The specific allocation funds consists of: (i) a specific allocation fund for education infrastructure; and (ii) a specific allocation funds for education non-infrastructure, which mainly consists of the allowances for teachers and the school operation assistance program.
- <sup>8</sup> Since basic education is under the authority of local governments at the district level, the teachers' salaries are the responsibility of the local governments.
- <sup>9</sup> The transfer mechanism of this program has been revised since it was firstly established in 2005. Since 2012, the fund has been transferred through the local government at the provincial level.
- <sup>10</sup> As of the end of April 2017, 1 USD is approximately equal to IDR 13,300 ([www.bi.go.id](http://www.bi.go.id))
- <sup>11</sup> The sources of district governments spending on education include the central government transfers that are pooled into the district governments' budget.
- <sup>12</sup> Net Enrollment Ratio is defined as the number of children of official school age that are enrolled in a given level of education as a percentage of the total children of the official school age population (<http://unstats.un.org> & [www.bps.go.id](http://www.bps.go.id)). Mean years of schooling is defined as the average number of years of education received by people ages 15 and older ([www.bps.go.id](http://www.bps.go.id)).
- <sup>13</sup> The National Socioeconomic Survey (*Survei Sosial Ekonomi Nasional-SUSENAS*) is an annual nationwide socioeconomic survey conducted by the Statistics of Indonesia (BPS). From 2010 to 2015, on average, the surveys covered a nationally representative sample of around 287,000 households or 1,117,000 individuals. The SUSENAS raw data was available for this paper courtesy of the Department of Economics, Faculty of Economics and Business Universitas Indonesia.
- <sup>14</sup> The figure depicts the net enrollment ratio and the average ratio of government spending to GRDP. The ratio of government spending to GRDP reflects the size of government spending compared to output production of the respective districts.
- <sup>15</sup> The data are based on the number of districts in Indonesia in 2010 (497). The districts within the Province of Jakarta (6 districts) are excluded from the analysis, since Jakarta, as the capital city, is decentralized at the provincial level, not at the district level.
- <sup>16</sup> The study by Jasmina and Oda (2017) empirically shows that the socioeconomic conditions of the western and eastern parts of Indonesia are significantly different.
- <sup>17</sup> This condition slightly differs with that presented in Figure 5, which applies the net enrollment ratio of junior secondary education in 2015.
- <sup>18</sup> According to World Bank, the student-teacher ratio is often used to compare the quality of schooling, but it is often weakly related to student learning quality and education (World Bank, 2017).
- <sup>19</sup> Compared to the international average, in 2014, the student-teacher ratio in the world was 24 (World Bank, 2017).

- <sup>20</sup> The Indonesian Local Education Governance Index is an index developed by World Bank Indonesia based on a survey conducted in 50 districts (9 provinces) across Indonesia during 2009 and 2012. The index assessed the state of local education governance at the district level, because the district governments play an important role in providing basic education. From the four selected districts, Sleman and Kulon Progo were included in the survey.
- <sup>21</sup> The officials of the Local Education Offices of Bogor, Majalengka, Sleman, and Kulon Progo, February 3-17, 2017.
- <sup>22</sup> The officials of the Local Education Office and the Local Development Planning Agency of Bogor, February 3, 2017. The officials of the Local Education Office of Education, Youth, and Sport of Kulon Progo, February 14, 2017.
- <sup>23</sup> The officials of the Local Education Offices and the Local Development Planning Agencies of Bogor, Majalengka, Sleman, Kulon Progo, February 3-17, 2017.
- <sup>24</sup> The officials of the Directorate of Development of Basic Education Teacher MoEC, Jakarta, February 1, 2017, and the officials of Local Education Offices of Bogor, Majalengka, Sleman, and Kulon Progo, February 3-17, 2017.
- <sup>25</sup> The officials of the Directorate of Development of Basic Education Teacher MoEC, Jakarta, February 1, 2017, and the official of the Research and Development Center MoEC, Jakarta, February 21, 2017.
- <sup>26</sup> The MoEC conducted a nationwide teachers' competence test in 2015 to map the teaching quality. As a follow up, in 2016, the MoEC designed a program to accelerate the competence of teachers. However, at the time this study was conducted, the results of this program were not yet available.

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