

Understanding Metropolitan Poverty: The Profile of Poverty in Jabodetabek



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SMERU WORKING PAPER

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Editor

Dhania Putri Sarahtika

The SMERU Research Institute

December 2019

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Cover photo: M. Fajar Rakhmadi

The SMERU Research Institute Cataloging-in-Publication Data

Asep Suryahadi

SMERU WORKING PAPER: Understanding Metropolitan Poverty: The Profile of Poverty in Jabodetabek./
Asep Suryahadi and Cecilia Marlina; editor, Dhania Putri Sarahtika.

--Jakarta: SMERU Research Institute, 2019.

--25p.; 30 cm.

ISBN 978-623-7492-22-1

ISBN 978-623-7492-23-8 [PDF]

1. Poverty 2. Metropolitan 3. Jabodetabek

I. Title II. Author

DDC'23 362.5

Published by:

The SMERU Research Institute

Jl. Cikini Raya No.10A

Jakarta 10330

Indonesia

First published in December 2019



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ACKNOWLEDGEMENTS

We would like to thank Ridho Al Izzati for the research assistance and Bambang Hadi for providing the poverty map of Jabodetabek area.

ABSTRACT

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Rapid economic development in Jabodetabek—a metropolitan area consisting of Jakarta, Bogor, Depok, Tangerang, Tangerang Selatan, and Bekasi—has caused an influx of migrants to the region, leading to the highest urban concentration in Indonesia. Despite such development, the poverty rate has remained relatively stagnant at around 6% since the early 2000s. Due to their formulation being based on the national poverty profile, the poverty reduction programs in Jabodetabek may not be effective. Therefore, it is important to specifically assess the poverty profile of Jabodetabek.

By comparing the correlates of poverty in Jabodetabek and Indonesia as a whole using Susenas data, this study finds that Jabodetabek’s poverty profile is significantly different from the national one, in particular in terms of educational attainment, access to drinking water, employment sector, and employment status. For educational attainment, the completion of elementary school alone is not enough to reduce the probability of being poor. Access to drinking water is shown to have no correlation with poverty in Jabodetabek, while it remains significant at the national level. As for employment sector, manufacturing, with its capabilities to absorb a great number of laborers, has made significant contributions in minimizing the chances of becoming poor. Meanwhile, contrary to the national trend, unpaid family workers in Jabodetabek have a lower probability of being poor.

This study has important implications for the effectiveness of poverty reduction programs in metropolitan areas, particularly as the number of metropolitan areas keeps growing nationally and globally. The findings of this study indicate that social and economic policies in metropolitan areas should be tailored toward achieving higher educational attainment, fostering the growth of the manufacturing sector, improving basic infrastructure, and scaling up internet access for all, especially for the poor.

Keywords: poverty, metropolitan, Jabodetabek, Indonesia

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LIST OF ABBREVIATIONS

Jabodetabek	Jakarta, Bogor, Depok, Tangerang, Tangerang Selatan, Bekasi
PDAM	local government-owned utility
Susenas	National Socioeconomic Survey
UNICEF	United Nations Children's Fund

I. INTRODUCTION

The growth of cities and their surrounding areas is closely linked to changes in the economy, especially since such growth creates opportunity for more productive jobs, which can contribute to attracting foreign trade and investment (World Bank, 2009). Through economies of scale and the process of agglomeration, an exponential economic growth is expected to occur (Christiaensen and Yasuyuki, 2014). Hence, cities play a central role as engines of national economic development (UN-Habitat, 2011).

With careful planning, urbanization can become a key tool for accelerating development and the engine of growth through higher levels of productivity (Becker, 2008; Duranton and Puga, 2004). In addition, a well-managed metropolitan area can encourage the growth of secondary cities through a spill-over effect. According to UN-Habitat (2011), “a metropolitan region is a high degree self-contained universe that generates a large share of its own demand”. Although it has become cheaper to travel long distances, more and more people are clustering closer and closer together in large metropolitan areas (Glaeser, 2011).

However, the positive results outlined above only materialize when the work generated in cities also accounts for marginalized people, in particular maximizing employment generation for the unskilled poor. Empirical studies have found that megacity agglomeration results not only in faster income growth but also higher income inequality (Christiaensen and Yasuyuki, 2014). Addressing poverty in metropolitan areas is therefore critical to maximizing the benefits of urban development.

In addition, as more of the urban population earns higher incomes, they demand more living space and entertainment (Almeida et al., 2005). Therefore, growth in the core of the city needs support from the regions nearby. Those supports include, but are not limited to, cheaper housing options and new employment opportunities. In addition to nondemographic factors, population variables of size and growth are critical components affecting well-being in cities of developing countries (Brockhoff and Brennan, 1998).

To prevent the negative effects of the agglomeration process, a better understanding of poverty conditions in metropolitan areas is necessary. Developing countries often institute programs to tackle poverty problems uniformly across the country and based on the national poverty profile. If the poverty profile in a metropolitan area is significantly different from the national profile, alleviation programs based on the national profile may not be suitable or effective in addressing the poverty problems there. For example, one major poverty reduction initiative in Indonesia is the provision of Village Fund, which is a block grant of around Rp1 billion (around US\$70,000) per year for each of the approximately 70,000 rural villages in the country (Suryahadi and Izzati, 2018). Since the grant is provided only for rural villages, the majority of regions within metropolitan areas are not eligible to receive it.

This paper aims to contribute to a better understanding of poverty conditions in metropolitan areas, focusing on the Greater Jakarta metropolitan area of Indonesia, commonly known as Jabodetabek, and its implication for policy to address poverty in metropolitan areas. Jabodetabek refers to the inner part of the metropolitan region, Jakarta, the capital of Indonesia, and the outer part of the region, Bodetabek, which consists of five cities (the cities of Bogor, Depok, Tangerang, South Tangerang, and Bekasi) and three districts (the districts of Bogor, Tangerang, and Bekasi). Hence, Jabodetabek covers areas in three provinces: Jakarta, West Java, and Banten. The total area of Jabodetabek is around 7,000 km². Figure 1 shows the map of the Jabodetabek metropolitan area.

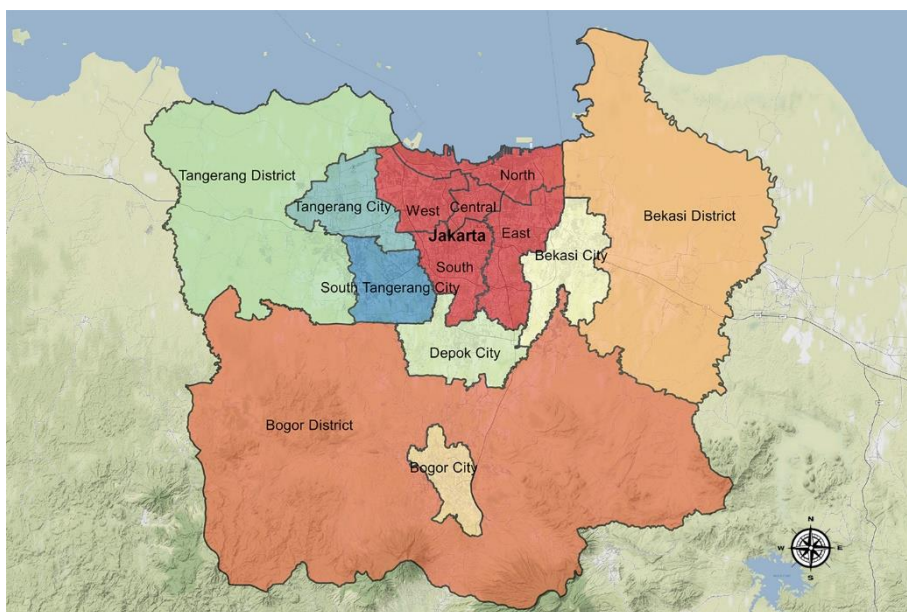


Figure 1. Map of Jabodetabek metropolitan area

Source: Badan Pusat Statistik¹, 2016, processed.

The remainder of this paper is organized as follows. Section two reviews the literature on poverty in metropolitan areas in developing countries. Section three discusses the trends and distribution of poverty in Jabodetabek. Section four describes the method and data used in the analysis. Section five presents and discusses the results of the analysis. Finally, section six concludes and offers some policy implications.

II. POVERTY IN METROPOLITAN AREAS

Poverty in metropolitan areas is expected to continue to be a challenge in developing countries as the number of poor people seeking opportunities in cities is expected to grow. The growing number of migrants, when not accommodated by land, infrastructure, and jobs, results in increased poverty rates. Poverty in metropolitan areas presents a particular set of characteristics and challenges from rural areas, including the health and sanitation problems of slums, the nature of unemployment, and violent crime (Ferré, Ferreira, and Lanjouw, 2012). Dealing with these specific challenges impacts the costs of providing basic services, such as the improvement of roads, water systems, and sanitation (Joassart-Marcelli, Musso, and Wolch, 2005).

For example, the metropolitan city of Manila, which consists of 17 cities and municipalities, faces the constant problem of traffic congestion that costs an estimated US\$70 million a day. Around 11% of Manila's population lives in slum areas due to a lack of affordable housing. Economic growth, which is led by the manufacturing sector in the city, has been stagnant in recent years, adding pressure on people with low skilled jobs (Baker and Watanabe, 2017).

Bangkok has an issue with segregation of the middle class and the poor. Little urban planning and regulation of the city, coupled with the influx of rural people into the city, have made the problem

¹Statistics Indonesia.

worse. Apparent boundaries across different parts of Bangkok mark the inequalities. Outer Bangkok is well-known for its production sector, while the commercial and financial sector is more concentrated in inner Bangkok. Rattanakosin (also known as the early settlement of Bangkok), located in the inner area, is considered the most congested area of Bangkok, where many slum dwellers live. Many slums are also found in the central business district (CBD) area of Bangkok, where many offices and governments operate (Baker and Watanabe, 2017).

Like in other metropolitan areas in developing countries, most slum dwellers in Bangkok have a primary level of education and low skills. Hence, most work in the informal sector, living near their worksite to avoid traveling costs. Bangkok is expected to have a population surpassing 10 million people by 2030. As a consequence, the problem of slums in the metropolitan area will become more pressing (Choiejit and Teungfung, 2005).

A study finds that one-third of Hanoi residents live in very crowded conditions in slums (Minnery et al., 2013). The Vietnamese Government has a strict regulation on urban property ownership. Despite the high migration of people from rural areas to the city, the government only provides the right to own urban property to people with urban residency status. This exacerbates the situation, as poor people settle on illegal premises in the city (Baker and Watanabe, 2017).

People in rural Vietnam perceive rural-urban migration as a support strategy in the face of agricultural and economic shocks in their village, such as floods or failing crops (Nguyen, Raabe, and Grote, 2013). For better-off households, migration is deemed important in order to obtain a higher education, which is not easily accessible in the village.

The poverty rate in New Delhi, the capital and second largest metropolitan area in India, was 14.2%, which is about half the national rate, in 2009/2010. However, while the poverty rate is decreasing for India as a whole, it is slightly increasing in New Delhi. A significant proportion of the poor in New Delhi work as rickshaw pullers. About half of them are natives, while the other half are migrants from rural areas. They work for about 12 hours per day and the majority have occupational health issues such as body aches, joint issues, and respiratory problems. They live in rented one-room houses without in-house toilet facilities or drinking water connections; some sleep on the pavement and footpaths, or under flyovers and bridges. Many of them and their family members are illiterate. They own very few assets and some are indebted. Almost none of them receive the benefits of government programs (Risbud, 2016).

Rio de Janeiro is the largest metropolitan area in Brazil. It is famous for its squatter settlements, the favelas. They are highly consolidated concentrations of poor people on public or private land, equipped with little but self-built shelters and lacking any kind of design plan. They exist in large numbers and are spread across the city, frequently occupying hilly sites (Xavier and Magalhães, 2003). In 2010, 1.4 million people, or 22% of Rio's population, lived in favelas. This proportion is set to grow as the population growth in favelas during 2000–2010 reached 27.5% compared with just 7.4% for the whole of Rio. The existence of favelas not far from affluent neighborhoods makes Rio known as a divided city and reflects the stark inequality, segregation, and exclusion that exist in the city. For example, in 2008 the poverty rate for Rio as a whole was approximately 10%, while in the favelas the rate was 15%. In addition, the favela population has higher rates of early death by homicide, low income, illiteracy, teenage pregnancy, and under-five mortality (Jovchelovitch and Priego-Hernandez, 2013).

One of few metropolitan areas in Africa is Lagos in Nigeria. Similar to Rio de Janeiro, there is a stark contrast between affluence and poverty in Lagos. However, in general there has been a deterioration in the quality of life in Lagos during the last two decades due to the high level of poverty, a proliferation of slums, environmental degradation, a dilapidated and congested road

system, massive flooding, a disrupted sewerage network, and increasing crime rates. Largely, the communities that live in urban slums belong to the class of low-income households who migrate to the city to seek a better future. Lagos is estimated to have more than 100 slums, with 2 out of 3 Lagosians living in slums (Akanle and Adejare, 2017).

To summarize, metropolitan areas in developing countries in general are characterized as divided regions, where affluent neighborhoods and slums occupy different areas and the borders are apparent. The slums, where most of the poor live, are informal settlements, developed without a plan and often illegally occupying public or private land, hence providing residents with no property security. Many of the poor are migrants from rural areas, or their descendants, who come to cities in search of a better life. They have low levels of formal education and employable skills, work in the informal sector, and earn low income. They often cannot access public services, such as clean water and electricity, education, and health services.

III. POVERTY IN JABODETABEK

The term ‘urban sprawl’ is commonly used to refer to a peripheral area that supports the growth of a city (Henderson and Kuncoro, 1996). In this context, Bodetabek is one example of the ‘urban sprawl’ phenomena because it acts as the support system of the main capital, Jakarta. It provides more residential and commercial space than Jakarta does. Hence, it is common in Jabodetabek to find land for residential and commercial use side by side. Furthermore, some low- or middle-income residences may occupy a small area within high income housings (Henderson and Kuncoro, 1996).

The population of Jakarta rose 17%, from 8.2 million to 9.6 million, during the interval between the population censuses of 1990 and 2010. Meanwhile, the population of Bodetabek doubled in the same period, from 8.9 million to 18.3 million. Thus, the population of Jabodetabek as a whole increased by 63%, from 17.1 million to 27.9 million (Jones et al., 2016), making it one of the metropolitan areas in the world with the largest population.

Jabodetabek is one of the areas in Indonesia with the lowest, but stagnant, poverty rate. Figure 2 shows poverty rates in the Jabodetabek metropolitan area, all urban areas, and Indonesia as a whole during 2004–2014. The Indonesian poverty rate significantly declined from 16.7% in 2004 to 11% in 2014. Similarly, the poverty rate in all urban areas had declined from 12.1% to 8.3% during the same period. Meanwhile, the poverty rate in Jabodetabek declined very slightly from 6% in 2004 to 5.3% in 2014. In particular, during 2012–2014, the poverty rate in Jabodetabek did not change at all. This shows that despite the high economic growth in Jabodetabek, poverty remains stagnant in the area.

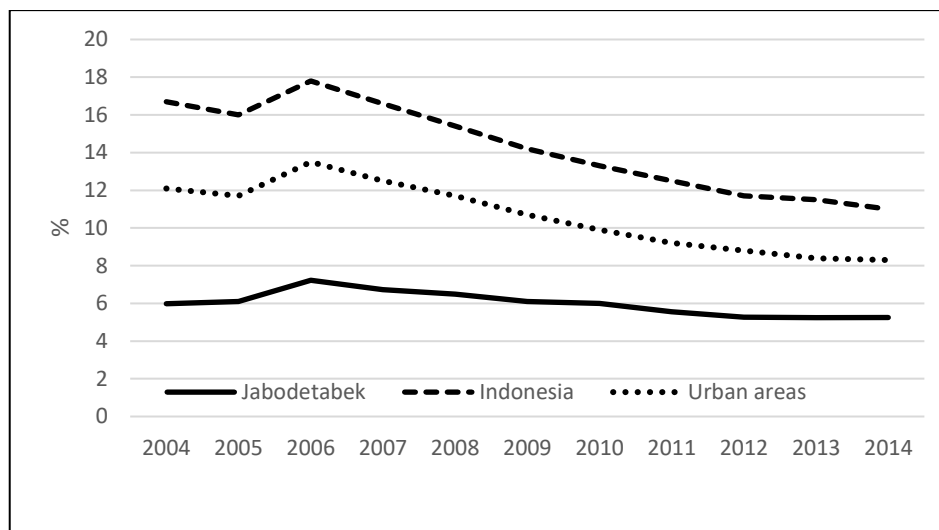


Figure 2. Poverty rates in Jabodetabek, urban areas, and Indonesia, 2004–2014

Source: Badan Pusat Statistik.

The 2014 poverty rates in the cities and districts within Jabodetabek are shown in Table 1. The table shows that, in general, the poverty rates in areas within Jakarta are lower than those in the Bodetabek areas. However, the area with the lowest poverty rate (1.7%) is South Tangerang City, which is located in Bodetabek. On the other hand, the area with the highest poverty rate (11.6%) is Thousand Islands District, which is located in Jakarta.

Table 1. Poverty Rates in the Cities and Districts of Jabodetabek, 2014

City/District	Poverty Rate (%)
Jakarta:	
- South Jakarta City	3.72
- East Jakarta City	3.43
- Central Jakarta City	4.12
- West Jakarta City	3.72
- North Jakarta City	6.00
- Thousand Islands District	11.56
West Java Province:	
- Bogor City	7.74
- Bekasi City	5.25
- Depok City	2.32
- Bogor District	8.91
- Bekasi District	4.97
Banten Province:	
- Tangerang City	4.91
- South Tangerang City	1.68
- Tangerang District	5.26

Source: Badan Pusat Statistik, 2016.

Figure 3 shows the poverty rates of Jabodetabek in 2015 at the village level. In this map, darker areas indicate higher poverty rates. The map confirms that Bodetabek areas in general have higher poverty rates than Jakarta areas do. However, poverty pockets are found in the northern parts of West Jakarta and North Jakarta.

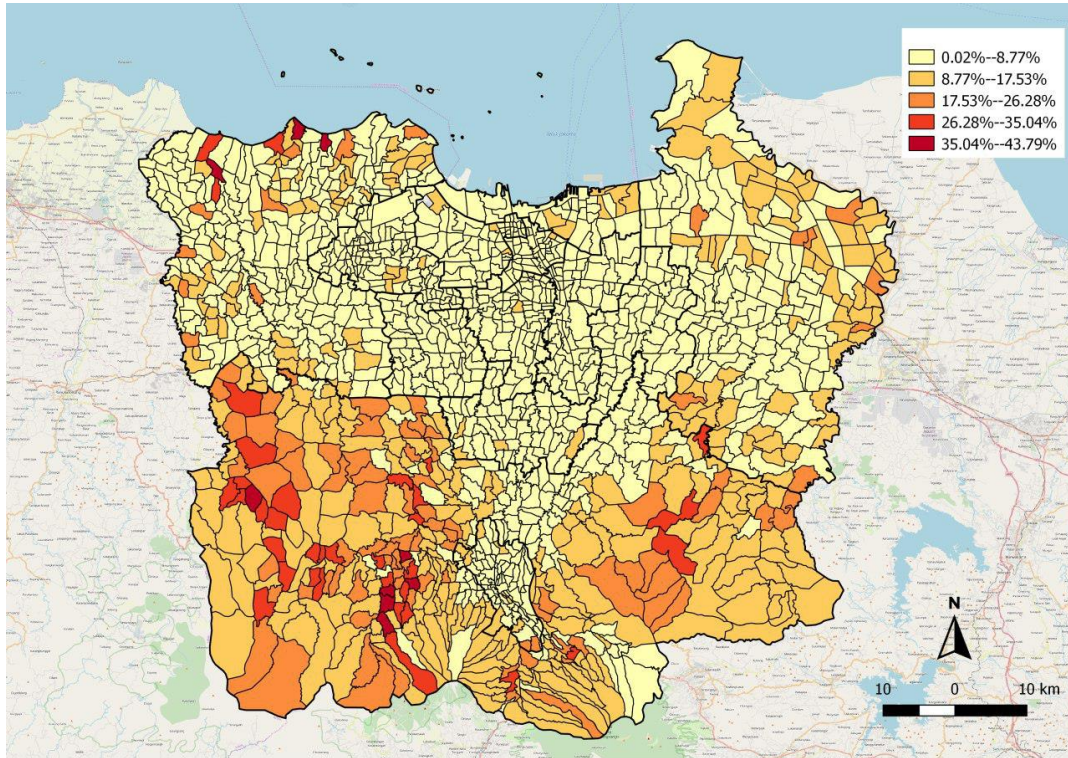


Figure 3. Poverty map of Jabodetabek at the village level, 2015

Source: The SMERU Research Institute, 2015.

IV. POVERTY PROFILE: METHOD AND DATA

4.1 The Model

The analysis of the poverty profile in this chapter uses a binomial logistic (logit) regression model of household poverty status and its correlates. The correlates selected to be included in the model are based on findings from previous studies on correlates or determinants of poverty.

An assessment using the Malawi Integrated Household Survey in 1998 finds that increasing educational attainment, especially for women, and reallocating labor from the agricultural sector to trade and services sectors are proved to be significant in reducing poverty rates (Mukherjee and Benson, 2003). Meanwhile, a broader assessment on metropolitan cities across Asia cites access to land for housing; access to basic infrastructure, such as water; sanitation; and solid waste management as the key features for measuring the inclusiveness of cities (Dahiya, 2012).

One study focusing on the urban poor in Malaysia looks at the link between housing conditions (types of dwellings, surrounding environments, and house tenure) and quality of life (health, safety,

and social support). It finds that housing conditions are significant in determining the quality of life; therefore, they should be taken into consideration when assessing the determinants of urban poverty (Zainal et al., 2012).

Furthermore, poverty is often attributable to the demographic characteristics of the household, which include family size, education level and gender of the household head, and age composition. A greater family size, especially for families which consist of many young children, is positively linked to chronic poverty, as it adds burden given the limited resources owned by a poor family (Bayudan-Dacuycuy and Lim, 2013).

Based on the findings of these studies, the correlates included in the model are household size; house size per capita; household head's education level, age, gender, employment sector, and employment status; and household's access to infrastructure, such as safe drinking water, the internet, and toilets.

4.2 Data

This study uses data from the 2014 National Socioeconomic Survey (Susenas) from Statistics Indonesia, which uses a sample of around 300,000 households across Indonesia. The household survey data contain information on basic demographic and socioeconomic conditions of households, including access to basic facilities, educational attainment, household expenditure, and types of employment. To determine household poverty status, the 2014 national poverty lines at the district level are used as the threshold.

V. RESULTS AND DISCUSSION

5.1 Results

The model is estimated using data for Jabodetabek metropolitan area as well as Indonesia nationally. Comparing the results of both estimations shows whether the poverty profile of Jabodetabek metropolitan area is significantly different from the national poverty profile. Table 2 shows the estimation results for both Jabodetabek metropolitan area and Indonesia as a whole.

**Table 2. The Correlates of Poverty in Jabodetabek and Indonesia
(in marginal effects after logit)**

Variable	Jabodetabek		Indonesia	
	dy/dx	p-value	dy/dx	p-value
Household size	0.0191**	0.00	0.0357**	0.00
Household size squared	-0.0010**	0.00	-0.0015**	0.00
House size per capita	-0.0011**	0.00	-0.0031**	0.00
Education level: (base: unfinished primary education)				
- Primary education	-0.0016	0.12	-0.0176**	0.00
- Junior high education	-0.0086**	0.00	-0.0330**	0.00
- Senior high education	-0.0173**	0.00	-0.0495**	0.00
- Tertiary education	-0.0278**	0.00	-0.0671**	0.00
Access to clean drinking water	0.0020	0.47	-0.0128**	0.00
Access to internet	-0.0149**	0.00	-0.0485**	0.00
Access to improved sanitation	-0.0044**	0.00	-0.0321**	0.00
Age of household head	-0.0015**	0.00	-0.0037**	0.00
Age of household head squared	0.0000**	0.00	0.0000**	0.00
Gender of household head	0.0034*	0.05	0.0184**	0.00
Urban	0.0068**	0.00	0.0042**	0.00
Job sector: (base: agriculture/unemployed)				
- Services	-0.0071**	0.00	-0.0229**	0.00
- Trade	-0.0060**	0.00	-0.0310**	0.00
- Industry	-0.0132**	0.00	-0.0152**	0.00
- Other sectors	-0.0060**	0.00	-0.0175**	0.00
Status of employment: (base: labor/unemployed)				
- Own a business	0.0013	0.24	-0.0009	0.13
- Own a business with the help of a laborer(s)	-0.0089**	0.00	-0.0001	0.90
- Work in a family business/unpaid worker	-0.0158**	0.00	0.0256**	0.00

* significant at 5%

** significant at 1%

Source: Authors' calculation using Susenas 2014.

5.2 Discussion

5.2.1 Household Size

The correlation of household size with household poverty status appears to be similar in both Jabodetabek and Indonesia as a whole. The correlation is positive with a decreasing rate, indicated by the positive coefficient of the household size variable and the negative coefficient of the household size squared variable, which are all statistically significant. This means that as household size increases, the probability of that household being poor also increases. However, this correlation gets smaller as household size increases further. The magnitude of the coefficients also

indicates that the correlation between household size and poverty in the metropolitan area is much smaller, only around one-half than that of the national figure.

This finding aligns with a study in the Philippines that examines the relation between household size, poverty, and vulnerability (Orbeta, 2005). It finds that a greater number of family members has a negative impact on household savings, increases the probability of children dropping out of school, and discourages the mother in the household from taking paid employment.

5.2.2 House Size per Capita

The correlation of house size per capita with household poverty status is also similar in Jabodetabek and Indonesia nationally. The coefficients are negative and statistically significant, indicating that the smaller the size per capita of a house, the higher the probability that its inhabitants are poor. The magnitude of the coefficients again indicates that the correlation in the metropolitan area is much smaller, only one-third than that of the national level.

5.2.3 Education Level

The correlations between education level of household head and household poverty status indicate that, in general, a higher formal education level is associated with a lower probability of being poor. This is indicated by the negative and statistically significant coefficients with larger magnitude as education level increases. However, there are important differences in the correlation between education and poverty in Jabodetabek and Indonesia as a whole.

First, in Jabodetabek, there is no added value in having only a primary education compared with those who did not finish primary education in terms of one's probability of being poor. At the national level, however, the coefficient is statistically significant, indicating that the effect of a primary education on lowering the probability of being poor is still significant. Second, the magnitude of the coefficients in Jabodetabek is much smaller, only around one-half, than that of those for Indonesia nationally. For example, nationally a university graduate has a 6.7% lower probability of being poor compared with those who did not finish primary education. In Jabodetabek, however, the probability is lowered by only 2.8%.

To look at this issue further, Table 3 compares the educational attainment of the poor in Jabodetabek and Indonesia as a whole. As expected, the poor had relatively low education levels. Only around 1% had attained tertiary education, both in Jabodetabek and all over Indonesia. However, the table clearly indicates that, in general, the poor in Jabodetabek had higher education levels than their counterparts in the country. While around one quarter of the poor in Indonesia did not attain primary education, only around 19% of the poor in Jabodetabek did not attain primary education. On the other hand, around 16% of the poor in Indonesia had attained senior high education, while in Jabodetabek around 24% of the poor completed senior high education. This shows that high education qualification, a stepping-stone to getting a productive job, is one factor, among others, in Jabodetabek that can help one escape poverty.

Table 3. Education Level of the Poor Population in Jabodetabek and Indonesia, 2014 (%)

Education Level	Jabodetabek	Indonesia
Unfinished primary education	18.63	24.66
Primary education	34.91	38.66
Junior high education	21.62	19.46
Senior high education	23.91	16.14
Tertiary education	0.93	1.08

Source: Authors' calculation using Susenas 2014.

5.2.4 Access to Clean Drinking Water

Nationally, access to clean drinking water is significantly associated with poverty, indicated by a negative and statistically significant coefficient. In Jabodetabek, however, clean drinking water appears to have an insignificant correlation with household poverty status as indicated by the insignificant coefficient. This implies that while nationally the poor still face problems in accessing clean drinking water, in Jabodetabek even the poor already have sufficient access to clean drinking water. This finding is further supported by an earlier study by the World Health Organization and UNICEF (2006), which postulates that urban areas have significantly better access to drinking water from an improved source than rural areas.

This seems to be related to the phenomenon of the mushrooming of refillable water kiosks in urban areas, which are convenient and affordable. With these kiosks selling drinkable water, now people living in the slums do not have to rely solely on access to local government-owned water utilities (PDAM) for clean water. However, it should be noted that Susenas only provides data about access to clean water without further assessment of the water's quality. There is an argument that peri-urban poor are more frequently exposed to harmful water compared with their peers in urban or rural areas because surface and household drainage systems are often located close to each other (Allen, Dávila, and Hofmann, 2006). Therefore, there is a need for local governments to conduct regular inspections of the quality of the drinking water commonly sold at the kiosks to ensure that it is suitable for consumption.

5.2.5 Access to the Internet

Access to the internet appears to have a significant correlation with poverty in both Jabodetabek and Indonesia nationally. The negative and statistically significant coefficients indicate that a lack of access to the internet is a good indicator of poverty. The magnitude of the coefficient in Jabodetabek is much smaller, only around one quarter of the coefficient at the national level, indicating much worse access to the internet for the poor in areas outside Jabodetabek.

The vast development of communication technology has the ability to reach marginalized people who are otherwise left behind, provided that there is a reliable infrastructure like good connectivity and electricity (Pralhad and Hammond, 2002). In addition, providing skills to understand the information gathered from the internet is deemed necessary to improve individual productivity. Thus, it is hoped that the poor can utilize knowledge gained from the internet to work in a better-paying job and subsequently move out of poverty.

5.2.6 Access to Improved Sanitation

Another basic service analyzed in this study is access to proper sanitation. It turns out that both in Jabodetabek and at the national level, this variable has a significant correlation with poverty. The coefficients are negative and statistically significant, indicating that people who do not have access to proper sanitation are more likely to be in poverty. However, the magnitude of the coefficient for the national level is almost eight times the coefficient for Jabodetabek, indicating a much worse sanitation problem for the poor outside the metropolitan area.

The priority to build proper sanitation infrastructure often ranks second to access to clean drinking water. It is also found that poor people who reside in the slum areas of the city are reluctant to invest in sanitation in their individual houses because they fear that they will lose their investment due to the land and housing tenure insecurity (Allen, Dávila, and Hofmann, 2006). One study conducted in Jakarta about solid waste management system concludes that one of the barriers to improving sanitation conditions in Jakarta is the limited availability of land (Aprilia, Tezuka, and Spaargaren, 2012). Since many poor people in the metropolitan area live in the compact or slum areas of the city, there is an urgent need to at least build communal sanitation infrastructure to accommodate the needs of the poor.

5.2.7 Age

Household head's age is significantly correlated with poverty both in Jabodetabek and at the national level. The coefficients of household head's age are negative and the coefficients of household head's age squared are positive. All the coefficients are statistically significant. This indicates that as people age, the probability of being poor decreases, but at a decreasing rate. However, the correlation between age and poverty is much smaller in Jabodetabek than nationally, indicated by the magnitude of the coefficient in Jabodetabek which is only around one half of the coefficient at the national level.

5.2.8 Gender

Gender of the household head is also significantly correlated with household poverty status. The coefficients are positive and statistically significant, indicating that households headed by women have a higher probability of being in poverty compared with households headed by men. However, the magnitude of the coefficient at the national level is much higher, around six times, than that in Jabodetabek. This indicates that women-headed households outside Jabodetabek face higher difficulties in earning a living compared with women-headed households in Jabodetabek.

The majority of households, both in Jabodetabek and at the national level, are headed by a man. In households headed by a woman, the breadwinner of the family is a woman. There are at least two reasons why households headed by a woman have a higher probability of being poor. First, women have a higher chance of facing discrimination in the labor market both in terms of employment opportunities and wages. Second, because women household heads are often single parents, they face the double burden of having to work and take care of the family at the same time (Peters, 2016).

5.2.9 Urban Area

Although Jabodetabek is a metropolitan area, because it includes four districts, it still has areas classified as rural. This is a specific feature within Asian megacities, where extended urbanization has penetrated the dense agricultural area and caused chaotic urban-rural land use as well as mixed urban-rural livelihoods (Rustiandi et al., 2015). Therefore, it is still possible to examine the

correlation between urban status and household poverty. The estimation results indicate that the correlation is positive and significant, indicating that living in urban areas is associated with a higher probability of being poor. The coefficient is greater for Jabodetabek compared with the national-level coefficient. It means that the probability of being poor is even higher for those residing in the urban area of Jabodetabek than those living in other urban areas.

Where a person is born has a very big impact in determining whether they live in poverty or not. Being born in an urban area with all the public facilities available might give an advantage starting point for living a better life compared with those born in a rural area. However, living in an urban area also comes with the heavy price tag of being more prone to falling into poverty (Dahiya, 2012). The prices of goods in urban areas are more prone to fluctuation, putting vulnerable people at risk of falling into poverty if their wages are not sufficient to cover the cost of living. Moreover, the urban needs are more complex compared with living in rural areas in terms of goods and services needed to survive, such as transportation costs. People in rural areas have the ability to grow their own crops to survive during times of rising food prices, while in urban areas, limited available land prevents this.

5.2.10 Employment Sector

Services, trade, manufacturing, and other employment sectors are all significant in both Jabodetabek and at the national level. People working in these sectors have a lower probability of being poor compared with those who are working in the agricultural sector or are unemployed. Table 4 shows that while most of the poor people in Indonesia earn their livelihood in the agricultural sector, most of the poor in Jabodetabek work in the services sector.

Table 4. Employment Sectors of the Poor Population in Jabodetabek and Indonesia, 2014 (% of total population)

Jabodetabek		Indonesia	
Sector of Occupation	%	Sector of Occupation	%
Public services	24.34	Food crop agriculture	29.16
Trade	22.99	Trade	12.43
Manufacturing	17.96	Plantation	11.17
Construction	8.35	Manufacturing	10.85
Food crop agriculture	6.56	Public services	8.51
Others	19.80	Others	27.88

Source: Authors' calculation using Susenas 2014.

In Jabodetabek, the job sector with the highest correlation with a lower poverty rate is the manufacturing sector. It is followed by the services and trade sectors. Meanwhile, at the national level, the sector with the greatest coefficient is the trade sector, followed by the services sector. The importance of the manufacturing sector in Jabodetabek can be traced back to the 1980s, a period marked by the growth in manufacturing industries in Jakarta and the surrounding regions. In mid-1980s, due to the rising cost of land in Jakarta and the toll road extension to Bekasi and Tangerang, many manufacturing firms began building factories in the peripheral areas of Jakarta to lower their production costs (Henderson and Kuncoro, 1996). Hence, until today Jabodetabek has many well-known industrial zones, such as Jababeka and Pulogadung. The ability of the manufacturing sector to absorb a large number of workers contributes to its high significance in lowering the probability of people falling into poverty.

5.2.11 Status of Employment

Both in Jabodetabek and Indonesia as a whole, the variable that refers to owning a business appears to be insignificant. Hence, it means that compared with people who are unemployed or are working as paid laborers, people who own a business do not show any significant difference in terms of the probability of being poor. Two types of employment status are correlated with poverty in Jabodetabek: operating a business with the help of a laborer(s) and working for the family, commonly known as an “unpaid family worker”. People with either of these employment statuses have a lower probability of being poor. On the other hand, at the national level, unpaid family workers have a higher probability of being poor.

People who work for their family as unpaid family workers have a significant correlation with poverty both in Jabodetabek and at the national level. However, it is interesting that the coefficient is negative in Jabodetabek, while it is positive at the national level. It indicates that in Jabodetabek, people who work for their family are more financially secure compared with those who work as laborers. The opposite is true at the national level: compared with paid laborers, people who work as unpaid laborers for their family are more vulnerable to poverty. One underlying difference can be explained by the characteristics of the job sector in which people work in different areas. Table 5 shows that in Jabodetabek, around 78% of those who work for their family are working in the trade or hotel/restaurant sector. Meanwhile, in Indonesia as a whole, 35% of people who work as unpaid family workers are working in the trade sector and 32% are working in the agricultural sector.

Table 5. Job Sectors of People Who Work in a Family Business without Pay

Job Sector	Indonesia		Living outside Jabodetabek		Living in Jabodetabek	
	Freq.	%	Freq.	%	Freq.	%
Agriculture (paddy & secondary crops)	120,299	22.37	118,352	23.36	1,947	6.27
Horticulture	21,644	4.02	21,011	4.15	633	2.04
Plantation	37,743	7.02	37,743	7.45		
Fisheries	4,963	0.92	4,963	0.98		
Farm	30,149	5.61	30,149	5.95		
Forestry and other agriculture	4,680	0.87	4,225	0.83	455	1.46
Mining and quarrying	1,222	0.23	1,222	0.24		
Processing industry	39,510	7.35	37,417	7.38	2,093	6.74
Construction	15,545	2.89	15,545	3.07		
Trade	199,332	37.07	180,131	35.55	19,201	61.81
Restaurant and accommodation services	32,486	6.04	27,162	5.36	5,324	17.14
Transportation, warehousing	2,058	0.38	2,058	0.41		
Information and communication	528	0.1	528	0.1		
Financial agency, insurance	102	0.02	102	0.02		
Education services	1,186	0.22	382	0.08	804	2.59
Health services	1,612	0.3	1,612	0.32		
Public, social, and individual services	16,477	3.06	15,870	3.13	607	1.95
Others	8,225	1.53	8,225	1.62		
Total	537,761	100	506,697	100	31,064	100

Source: Authors' calculation using Susenas 2014.

VI. CONCLUSION AND POLICY IMPLICATIONS

Despite the rapid economic development, the poverty rate in Jabodetabek metropolitan area has been relatively stagnant at around 6% since the early 2000s. There is a possibility that the poverty reduction programs implemented in Jabodetabek are not effective because these programs were developed based on the national poverty profile. If the poverty profile in metropolitan areas is significantly different from the national poverty profile, these programs may not be suitable or effective in addressing the poverty problems of metropolitan areas. This study indeed finds that the poverty profile in Jabodetabek is significantly different from the national poverty profile, especially in terms of educational attainment, access to drinking water, employment sector, and status of employment. Therefore, tackling poverty in the Jabodetabek metropolitan area requires a policy that is distinct from the national poverty reduction policy.

Basic necessities such as water show no correlation with poverty in Jabodetabek, while they remain significant at the national level. In terms of educational attainment, it is found that the completion of only up to elementary school is no longer sufficient to support a decent living in Jabodetabek, even though it still appears significant at the national level. Tertiary education level has the highest impact in lowering the chance that one lives in poverty. Employment sector also highly correlates with poverty status. The manufacturing sector, with its capabilities to absorb a great number of laborers, appears to make significant contribution to minimizing the poverty rate in Jabodetabek. Meanwhile, at the national level, the impact of the trade sector is more prevalent than the manufacturing sector. In addition, this study uncovers an interesting finding that people who work for their family without pay have a lower probability of being poor in Jabodetabek, while at the national level that type of work seems to increase the probability of being poor. This is related to the difference in the employment sectors in which the majority of unpaid family workers work in Jabodetabek and nationally.

This study has important implications, as the number of metropolitan areas in Indonesia and the world continues to grow. In Indonesia, for example, the cities of Surabaya and Makassar have grown into metropolitan areas just in the last 20 years. The findings of this study indicate that social and economic policies in metropolitan areas should be tailored to achieving higher educational attainment levels for their residents, while at the same time fostering the growth of the manufacturing sector. Improvement in basic infrastructure such as sanitation is also still found relevant. In addition, scaling up internet access for all is deemed necessary to broaden the scope of knowledge and information for poor people. Designing and implementing these policies in Jabodetabek are challenging, as they involve the governments of 3 provinces, 10 cities, and 4 districts. Hence, developing a mechanism for policy coordination among these governments should become a priority.

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