

## HOW DO GOVERNMENTS SPEND THEIR PUBLIC SPENDING?

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**Abstrak: Bagaimana Pemerintah Mengalokasikan Pengeluaran Publiknya?** Tujuan penelitian ini adalah untuk menguji apakah belanja daerah untuk belanja pendidikan, kesehatan, dan ekonomi mempengaruhi kesejahteraan, dan apakah populasi mempengaruhi hubungan antara ketiga belanja tersebut dengan kesejahteraan. Penelitian ini menggunakan sampel seluruh provinsi di Indonesia tahun 2008-2013, kecuali Provinsi Kalimantan Utara. Metode yang digunakan adalah metode regresi berganda. Hasil penelitian menunjukkan bahwa belanja pendidikan memiliki pengaruh positif, belanja kesehatan memiliki pengaruh negatif tidak signifikan, dan belanja ekonomi memiliki pengaruh negatif signifikan terhadap kesejahteraan. Populasi sebagai variable moderasi tidak mampu memoderasi hubungan antara ketiga belanja tersebut dengan kesejahteraan.

Kata Kunci: belanja pendidikan, belanja kesehatan, belanja ekonomi, populasi penduduk, dan kesejahteraan masyarakat.

**Abstract: How Do Governments Spend Their Public Spending?** The objectives of this study are to examine whether the local expenditure for education, health, and economic influence economic welfare, and whether population influences the relationship between them. This study used the sample of all province in Indonesia 2008-2013, except Kalimantan Utara Province. The method used in this study is multiple regression methods. The result of this study states that education expenditure had a significant positive effect, health expenditure had not significant negative effect, while economic expenditure had a significant negative effect on the welfare. Population as the moderating variable cannot moderate the relationship between that expenditure with the welfare.

Keywords: education expenditure, health expenditure, economic expenditure, population, and welfare.

### INTRODUCTION

In the *Nota Keuangan dan RAPBN 2011* stated that regional autonomy and fiscal decentralization are instrument in developing country in order to achieve social welfare. In the decentralization funding context, a crucial thing to look is the effectiveness of the bigger amount of fund that move to local government and the impact on social welfare. Consumption improved access to education, health and nutrition are important policies in the

government's overall strategy to reduce poverty and improve the welfare of the population of Indonesia. Public welfare will be achieved if all people's basic needs have been fulfilled in good condition. The people's basic needs such as food, shelter, education, health, infrastructure, and environmental health. As mentioned by Turnovsky (2008), at the microeconomic level, there is empirical evidence shows that public spending on human and infrastructure are complementary.

The success of a region in improving the welfare of the community could be affected by the spending policies of each local government. Local government spending policies can be reflected in the amount of expenditure allocation for each function and type of expenditure.

Along with the increase of funds decentralized and followed by the efforts to accelerate expenditures realization and improving the quality of expenditure, there have been improvements in various indicators of the level of welfare. In the last two years, the poverty rate has declined relatively significantly in most provinces. Similarly, the unemployment rate in most regions have declined relatively significant. In addition, in the last five years there has been increasing equitable regional development, as reflected in the improvement of statistical indicators GDP equalization between provinces (*Nota Keuangan and RAPBN 2011*).

The portrait of national economy and the increased of society welfare from year to year are in line with the increases of local funding sources, either through transfers or PAD. Although the national aggregate figures show that the increase in transfers from the government to the regions coupled with improvement indicators of the level of community welfare, but if we see the conditions in each region they have different pictures.

In the *Nota Keuangan dan RAPBN 2011*, in 2008 and 2009, the level of poverty in 29 provinces and the unemployment rate in the 20 regions declined. Although they did not show the decline in all regions, the regions that previously had relatively high poverty

rates such as Papua, West Papua, Maluku, Gorontalo, in 2010-2012 the poverty levels decreased faster than the Java-Bali region where poverty rates are indeed already relatively low. In 2012 the general decline in the unemployment rate, except in six regions (*Nota Keuangan and APBN 2014*).

Local government should use all the resources at their disposal to be used optimally in the public service can be reflected in the budget amount of income associated with a number of residents. Simply, it can be stated that every penny collected by local governments which derive from the PAD, the balance funds and other revenue sources, should be enjoyed by all residents in the region (*Analisis Realisasi APBD 2011*).

Manik (2013), in her study stated that the budget required by a region may depend on the number of residents in the region. The larger the population, the budget needed in the region is also getting bigger. Therefore, the possibility of a population can strengthen or weaken the relationship between the allocation of local government expenditure with public welfare. In other words, the number of people likely to act as a moderating variable that will moderate the relationship between the details of expenditure according to the function of education, health, and economic to public welfare. Thus, the purposes of this study are to determine the effect of education, health, and economics spending to welfare, and to determine whether the population able to moderate the relationship between spending on education, health, and economy towards prosperity.

Throughout the researchers knowledge, no studies have examined the relationship between the population to the welfare. Research conducted by Kumalasari & Poerwono (2011) examined the relationship between the population (independent variable) on the level of poverty (the dependent variable). They said the poverty measure that often used is to look the phenomenon of poverty in the region is the incidence of poverty, ie the percentage of the population who have an income (or proxy for income) is less than the amount required to meet the basic needs of life. In essence, poverty is strongly associated with the limited opportunities that one has to determine choices in life. If poverty is related to the limited opportunity, then human development is the opposite. The concept of human development is to expand human choices (enlarging choice) primarily to meet basic needs such as health, education and purchasing power.

According to Nelson and Leibenstein (quoted Sukirno, 2006) there is a direct influence of population increase with the level of welfare. Nelson and Leibenstein indicates that rapid population growth in developing countries led to the welfare of the community did not experience a significant improvement in the long-term, the public welfare possibly decrease.

Manik (2013), one goal of her research was to test the size of the local government towards human development. She said that the size of local government can be measured by the number of people so that the budget for region with small population is slightly different from the large one. However, the operational definition of size

of local government variable, she measured the size of the local government variable by dividing the total income of the center and regions with a population so that the size of the local government variable she used was to illustrate the per capita income, not the number of residents in the region. Therefore, in this study, researcher sought to test how the influence of population as a moderating variable to consider the welfare of the budget allocation by the function of education, health, and economy expenditure to total local government expenditure as independent variables.

According to Bernard Okun and Richard W. Richardson (1961: 230) in Penz, et al. (2011), economic development is defined as a sustained increase in welfare, which is reflected in the increased flow of goods and services. This definition is similar to the concept of development described by G. M. Meier. Based on this definition, economic development means an increase in national output (GDP per capita) on an ongoing basis to improve social welfare.

In Somashekar (2003: 4), economists like Prof. Baran, Buchanan and Ellis interpret economic development as something more than just an increase in total GDP, they believe that economic development also showed an increase in the standard of living. Economic development, generally includes the development of agriculture, industry, trade, transport, irrigation, electricity, etc., that indicate the development process.

Budget revenue and expenditure is an annual local government financial policy which is based on statutory provisions in force, as well as a variety of other considerations with a view to, the

preparation, monitoring, control and evaluation of budget revenue and expenditure is easily do. Budgeting basically aims to harmonize macroeconomic policies and available resources. Allocating resources appropriately according to government policy and preparing for the implementation of good budget management. Therefore, the budget is essential in order to function, among others, as well as control means for reducing inequality and gaps in various ways within a country.

Law No. 17 of 2003, APBD is a form of financial management that set each year by the regional regulation. APBD consists of budget revenues, expenditures, and financing. Local government expenditure according to Law No. 17 of 2003 is the obligation of local government that is recognized as a reduction of net worth. In Technical Bulletin No. 04, Presentation and Disclosure of Government Expenditure set by the Government Accounting Standards Committee, the classification of expenditure by function is used as the basis for performance-based budgeting. It is intended to benefit as much as possible in the use of limited resources.

Government spending allocated to education and health play important role in improving the quality of community empowerment. In accordance with Law No. 20 of 2003, the government must provide the education budget at least 20 percent of the national and regional budgets to meet the needs of national education. Education budget is the budget allocation to the education function that budgeted through the state ministries/agencies and budget allocations for education through transfers

to regions, including the salaries of educators, but does not include service education budget, to finance the provision of education is the government's responsibility.

The direction of development in the field of health conducted by the Ministry of Health is focused on several priorities, including the increase in the health of mothers, babies and toddlers which ensures a continuum of care; control people's nutritional status; control of communicable diseases and non-communicable diseases, followed sanitation; health human resource development; increase the availability, affordability, equity, quality and use of drugs as well as drug and food control; development of health insurance financing system; community empowerment and disaster management and health crises; as well as the improvement of health measures that ensure the integration of primary health care, secondary, and tertiary (*Nota Keuangan dan APBN 2012*).

Realization of the budget on economic function is the realization of the budget used to fund programs and providing means of transportation, agriculture, irrigation, and energy, which are expected to support efforts to accelerate economic growth. In the Ministry of Finance Regulation No. 91 / PMK.06 / 2007 mentioned sub-functions (further elaboration of the function) of the economic function, among others, trade, business development, cooperatives and SMEs; labor; agriculture, forestry, fisheries, and marine; irrigation; fuel and energy; mining; industry and construction; transport; telecommunications and informatics; economic research and development; and other economic.

According to BPS, the population is all the people who live in the geographical area of the Republic of Indonesia for 6 months or longer, and those who live less than 6 months but aims to settle. In the developing context, the view of the total population was divided, there are considered as obstacles to development, some are regarded as a driver of development. The problem of population growth is not just a number of issues, population issues are also of interest to human development and well-being (Kumalasari & Poerwono, 2011).

Widodo, et al. (2011) examined the patterns and improvements of government spending in education and health sectors, human development indicators (HDI), and indicators of poverty in Central Java province and how the role of HDI in connection with the relationship between government spending on education and health sector to poverty reduction in Province of Central Java. The results showed that the pattern of public sector government spending on education and health sectors, HDI, and poverty showed a positive trend. Thus, an increase in government spending on education and health spending not only followed by an increase in the HDI, but also decrease the amount of poverty.

In the *Nota Keuangan dan RAPBN 2011*, provincial budget expenditure allocations for education functions of the highest growth nearing 53 percent from 2007-2009. Increased budget allocation to the education functions related to the government's efforts to realize the constitutional mandate to allocate the education budget at least 20 percent of the state budget. Thus, the more the government budget allocated to

education, is expected to widen the opportunity for the public to gain access to education.

H1a: The spending allocation on education function affects the social welfare.

The large number of people in an area can affect the level of welfare in the area. The large number of residents in an area ideally balanced with budget allocations for education, it is expected that the large number of people do not adversely affect welfare.

H1b: The population moderates the influence of education spending allocation on the welfare of the community.

Not only education, health also plays an important role in improving the quality of community empowerment. Improved health will improve productivity, better health will increase employment and reduce the days not worked. In the *Nota Keuangan dan RAPBN 2011*, provincial budget expenditure allocations to the health function experienced a growth of 41.3 percent from 2007-2009. Thus, the more the government budget allocated to health, expected improvement of public health.

H2a: The spending allocation on health function affects the social welfare.

More and more people acquire the right to a healthy life, the better the quality of life in the area. The large number of residents in an area expected to be offset by the amount of health allocations provided by the government in the area so that no negative impact on welfare.

H2b: The population moderates the influence of health spending allocation on the welfare of the community.

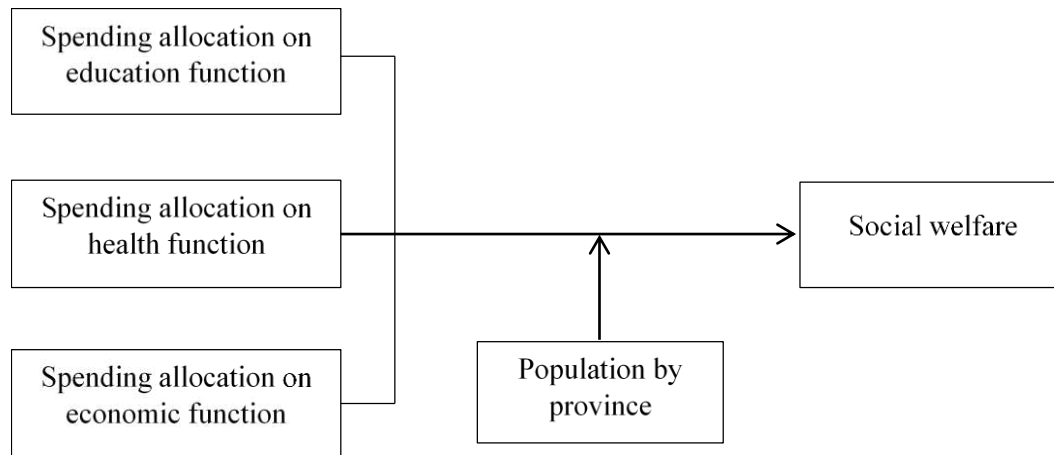


Figure 1. Research Model

In the period 2008-2013 the realization of the budget on the functioning of the economy, the environment, peace and order, housing and public facilities, tourism and culture, and social protection grew 55.1 percent in 2013. The increase in the budget realization in the economy, particularly in relation with the efforts of the government in order to support efforts to accelerate economic growth quality, ie not only the pursuit of high economic growth rate but also the achievement of social welfare. Thus, the increasing in spending allocation on economic function will increase the level of public welfare.

H3a: The spending allocation on economic function affects the social welfare.

The large number of residents in an area may influence the level of prosperity in the area. The large number of residents in an area ideally matched to the size of the budget allocation for the economic function, it is expected that the large number of people do not adversely affect welfare.

H3b: The population moderates the influence of economic spending allocations on the welfare of society.

## METHOD

The population in this study was all provinces in Indonesia in 2008-2013. The samples were all Indonesian provinces except Kalimantan Utara Province as promulgated by Plenary Meeting House of Representatives on October 25, 2012 by Law No. 20 of 2012. The data used in this study was obtained from the Indonesian statistics book published by BPS, BPS official website, and DJPK official website.

Based on Figure 1, the multiple regression method model is:

$$IPM = \alpha + \beta_1EDU + \beta_2HLT + \beta_3ECO + \beta_4EDU*POP + \beta_5HLT*POP + \beta_6ECO*POP + \varepsilon$$

Note:

- IPM : social welfare
- EDU : education spending
- HLT : health spending
- ECO : economic spending
- POP : population by province
- $\alpha$  : constant

Operational definition of variables see in Table 1. The analytical method used in this research is descriptive statistical analysis and multiple regression analysis to test the hypothesis.

Table 1. Operational Definition

Variable Name	Definition	Measurement
Education spending (EDU)	A budget allocated by the local government and is intended to finance expenditure for education function.	The proportion of education expenditure to total expenditure.
Health spending (HLT)	A budget allocated by the local government and is intended to finance expenditure for health function.	The proportion of health expenditure to total expenditure.
Economic Spending (ECO)	A budget allocated by the local government and is intended to finance expenditure for economic function.	The proportion of economic expenditure to total expenditure.
Population by Province (POP)	The total population of each province according to the census and the survey conducted by BPS as a moderating variable.	Total population of each province.
Social Welfare (IPM)	Social welfare is measured using a proxy of the Human Development Index (HDI) as the dependent variable.	Human development index of each province.

## FINDING AND DISCUSSION

Table 2 shows that the local government budget allocated to education spending on average Rp443.123,86 million, with a minimum value Rp17.805,39 million, the maximum value Rp12.815.350,54 million, and a standard deviation of Rp1.371.618,12. The standard deviation that higher than the average shows that local government budgets allocated for education spending varies greatly in size.

Table 2 shows that the average health expenditure provided by the local

government of Rp345.286,08 million, a minimum amount of Rp11.864,45 million, the maximum value Rp4.634.050,53 million, and the standard deviation Rp540.639,84. Health expenditures also showed a standard deviation higher than the average. This means that health expenditure allocated by local governments vary in size.

Economic expenditure budget provided by the local government, as shown in table 1, has an average of Rp462.332,92 million, with a minimum value Rp71.797,61 million, the maximum value Rp5.206.235,88 million, and

Table 2. Descriptive Statistic Results

Variable	Measure	Minimum	Maksimum	Mean	Deviation Standard
Education spending (EDU)	Rupiah (million)	17.805,39	12.815.350,54	443.123,86	1.371.618,12
Health spending (HLT)	Rupiah (million)	11.864,45	4.634.050,53	345.286,08	540.639,84
Economic spending (ECO)	Rupiah (million)	71.797,61	5.206.235,88	462.332,92	613.133,54
Population (POP)	Rupiah (million)	730,00	45.340,80	7.234,22	10.241,49
Social welfare (IPM)	index	64,00	78,59	72,13	3,04

the standard deviation of Rp.613 .133,54 million. Such as education and health spending, standard deviations of economic spending is also higher than the average. This means that all expenditure variable in this study vary in size.

Overall, the average number of residents is 7.234,22 thousand inhabitants, with a maximum value of 45.340,80 thousand inhabitants, the minimum value of 730,00 thousand inhabitants, and the standard deviation of 10.241,49 thousand inhabitants. A quite high standard deviation and little above the average indicates that the population also has a very varied size. The average HDI every province in Indonesia is 72.125, with a maximum value of 78.59 and a minimum value of 64.00. The standard deviation is much lower than the average value indicates the index of human development in Indonesia is quite uneven.

Hypothesis testing is done by comparing the level of significance t of the test results with significant value that is used to perform

partial test. Summary of test results of multiple linear regression are presented in the following table:

$$IPM = 70,378 + 25,048 \text{ EDU} - 4,515 \text{ HLT} - 16,507 \text{ ECO} + 0,14 \text{ EDU*POP} - 7,767 \text{ HLT*POP} + 8,247 \text{ ECO*POP} + \epsilon$$

Based on the test results of multiple linear regression, independent variables allocation of education spending to total regional spending has a significance level of less than 5% and has a positive sign. This means that the hypothesis 1a stating the spending allocation on education function affects the social welfare, successfully supported. The results of this study are consistent with research conducted by Widodo et al. (2011) and Nur Baeti (2013) who found that education spending has positive influence on the Human Development Index. This shows that the education budget that had been allocated by the government actually plays an important role in efforts to achieve the welfare of society.

Table 3. Multiple Regression Results

Variable	Prediction	Coefficient	Significance	Note
EDU	+	25,048	0,000*	accepted
HLT	+	- 4,515	0,424	refused
ECO	+	- 16,507	0,008*	refused
EDU*POP	+	0,14	0,975	refused
HLT*POP	+	- 7,767	0,119	refused
ECO*POP	+	8,247	0,234	refused
Constant		70,378	0,000	

IPM as the dependent variable explained the welfare of society. EDU, HLT, and ECO as independent variable are to explain the proportion of education spending, health spending, and economic spending of total spending by local government. POP as a moderating variable describes the total population of each province in Indonesia.  
\* is significant sign



Whereas if the independent variables education spending is interacted with moderating variables, namely population, statistical tests showed a positive effect although not significant. This means the hypothesis 1b that states regional expenditure allocation according to the educational function affect the welfare of the community, is not supported. If the allocation of education expenditure has positive effect and significant on well-being, whereas when is interacted with population variable becomes insignificant, it is likely that the education budget allocated by the local government can not be enjoyed by the whole community. Although the result of the interaction of education spending variables and population has a positive coefficient, which means the population strengthens the influence of education spending on welfare, there is a possibility that the education budget allocated by the government need to be added so that the allocation of education spending can be enjoyed by the wider community.

The test result of independent variable health expenditure showed a negative coefficient and insignificant. This suggests that the third hypothesis (hypothesis 2a) could not be supported. Likewise with the hypothesis 2b which states the population moderates the influence of health spending allocation on the welfare of the community, unsuccessfully supported, because it shows the value of the coefficient was negative and insignificant. Research conducted by Hakimudin (2010) and Lestari (2013), shows that generally health spending is still technically inefficient in health costs. This indicates wasteful in the use of health

spending is quite large but not followed by provision of facilities and adequate health services for the community. Research results Devarajan et al. (1996) states that if productive expenditures used in excess would be unproductive. In his research, developing-country governments have been misallocating public expenditures, including Indonesia.

Realization of the budget on the economic function was the realization of budget that is used to primarily finance programs of transport infrastructure, agriculture, irrigation, and energy, which is expected to support efforts to accelerate economic growth. From the test results of multiple regression, economic spending has a significant negative effect on the welfare. Hypothesis 3a that states the spending allocation on economic function affects the social welfare, can not be supported. Using the same reason the results of research conducted by Devarajan et al. (1996), there are indications of economic spending is not optimal. Governments can choose to reduce the economic expenditure or increase the output by increasing the development of infrastructure which becomes the aim of economic spending.

Research conducted by Maryaningsih et al. (2012) stated that in general there is inequality, both in quality and quantity of infrastructure between economic zones (KE) KE Java and other (economic regions outside Java). On land, the quality of damaged roads are often found in KE besides Java. Similarly, marine transportation as reflected in the unloading port of eastern Indonesia is still inadequate. From the energy infrastructure,

the condition is sufficient, but KE Java still outperformed others KE.

The test result of hypothesis 3b which states the population moderates the influence of economic spending allocations on the welfare of society shows positive coefficient though not significant. There is a possibility that the economic budget allocated by the local government can not be enjoyed by the entire community because of the possibility of local governments in allocating budgets less attention to the number of inhabitants in the region.

## CONCLUSION

The conclusion that can be drawn from this study is the population unable to moderate the influence of education, health, and economic spending towards prosperity. There is possibility of local governments in allocating the budget of less pay attention to the population in its territory. Moreover, education spending has significant positive effect on well-being, while spending on the economic function has significant negative effect on the welfare may caused by inefficient so that despite economic spending is enlarged, it can not improve the welfare

Suggestions for further research, the independent variable data used in this study is budget expenditure, due to research can provide a more in-depth, should also use the data of expenditure realization so that the budget expenditure and expenditure realization can be compared. In addition, the sample used can be expanded to the district / city so the analysis can do more in-depth.

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