



Economics and Crime Rates in Indonesia

Yozi Aulia Rahman[✉], Affandi Dwi Prasetyo²

^{1,2}Faculty of Economy, Universitas Negeri Semarang

Permalink/DOI: <https://doi.org/10.15294/jejak.v11i2.16060>

Received: April 2018; Accepted: June 2018; Published: September 2018

Abstract:

The Indonesian economy indicates good performance but it is not followed by the decrease in crime rates. The aim of research is to find out and analyze the effects of unemployment, education, wages, and case completion rates on the crime rates in Indonesia in 2012 – 2016. This research uses the panel data using the Fixed Effect Model (FEM) with Generalized Least Square (GLS) method. The data used in this research is the secondary data collected from the Central Bureau of Statistics and the Indonesian National Police since 2012 until 2016. The data includes the open unemployment rate, the school enrollment rates, the provincial minimum wages, the crime rates, and the case completion rates. The result of this research indicates that the variables of unemployment, education and case completion rates insignificantly affect on the criminal crime in Indonesia. The wages have negative and significant effect on the crime rates in Indonesia.

Keywords: crime, unemployment, education, wages, case completion rates

How to Cite: Rahman, Y., & Prasetyo, A. (2018). Economics and Crime Rates in Indonesia. *JEJAK: Jurnal Ekonomi dan Kebijakan*, 11(2), 403-414. doi:<https://doi.org/10.15294/jejak.v11i2.16060>

✉ Corresponding author :
Address: Jl. Sekaran Raya, Gunungpati, Semarang
E-mail: yoziaulia@mail.unnes.ac.id

INTRODUCTION

Crime may occur any time and brings bad effects on the economy or social activities. Criminal action is an unlawful act and is not in accordance with the rules and norms that have been agreed upon in a society. People opposed and tried to eliminate criminal acts because criminal acts create unrest in the community where people no longer carry out their activities. Criminologists assumed that a crime that must be explained by looking at the structural conditions in society in the context of inequality of power, authority, and prosperity and its relation to various economic and political changes in society (Santoso, 2001). Organized crime uses political violence to influence politics in all over the world (Daniele and Marani, 2017). Organized crime is very detrimental to investment and business activities (Ashby and Ramos, 2013). Business support policies to foster employment and productivity (Barone and Narciso, 2011). Crimes and violence imply people's welfare, such as a decrease in quality and quantity of life, including the increase in the government or private spending to prevent from crime actions. The other impacts are as follows: it is potential to damage the economy growth, to decrease the productivity, and to obstruct the planning (Soares, 2015).

Crime is a universal problem that has disadvantageous effects on the function and stability in the society and preventing crimes always becomes a big attention of public policy in all countries due to its implication and social-economic cost (Halicioglu, 2015). Crime mostly occurs in developing countries due to the low rate of people's education and welfare, just like what is occurring in Indonesia. Crime essentially arises because of

the character of humans who commit crime, poverty, employment opportunities, and other factors that open up someone's chances of doing evil such as the lack of police patrols, road and environmental conditions, population density, the value of residents' property, patrol frequency, and effectiveness prosecutors and judiciary institutions (Reksohadiprodjo, 2009).

Crime is an important social phenomenon that have an effect to our daily life's in directly or indirectly (Carboni and Detotto, 2016). Many criminal cases occur in Indonesia, both high and medium levels. Crime victims are not only high-income people, but also people with middle and lower income. They must lose their property, be physically and mentally injured, even they have to experienced prolonged trauma. The offender in committing their criminal acts are heavily influenced by economic factors, maybe he was fired from his job or they have small income or wage. Also they also have low education so they don't have many opportunities to get high-income jobs. Basically education is very important because it can affect individuals when entering the labor market. someone who has a higher level of education will have a greater opportunity to enter the labor market. There is also a low educational factor so that they do not have many opportunities to get high-income jobs. In general, crime groups are divided into four, (1) groups of crimes against property rights such as robbery, theft, theft, deliberate arson, and embezzlement; (2) groups of crimes against personal rights such as murder, rape and persecution; (3) groups of negative behavior in the community's view such as gambling, prostitution and narcotics; (4) violation groups such as riots and traffic violations.

The data and indicator to measure the crime in Indonesia can be seen from the amount of people at risk of crime per 100,000 people. The higher the crime rate is and the faster the period of time of the crime rate occurs, the more unsafe people will feel due to the crime actions (Central Bureau of Statistics, 2018). The crime rate condition can be seen from the crime rate indicator in table 1.

Table 1. Crime Rates in Indonesia in 2012-2016

Year	Crime Rate (per 100,000 people)
2012	134
2013	140
2014	131
2015	140
2016	140

Source: Central Bureau of Statistics and Indonesian National Police (2016)

Based on table 1 found from the Central Bureau of Statistics in 2012-2016, the crime rate in Indonesia is fluctuating and tends to be increasing from 134 criminal incidents that are risky occurring of 100,000 people in 2012 to be 140 criminal incidents that are risky occurring of 100,000 people in 2016. The cause of crimes can be found more deeply through the economy approach.

Table 2. Crime Clock in Indonesia in 2012-2016

Year	Crime Clock (per 100,000 people)
2012	00.01'54"
2013	00.01'32"
2014	00.01'36"
2015	00.01'29"
2016	00.01'28"

Source: Central Bureau of Statistics and Indonesian National Police (2016)

The crime clock indicator in Indonesia from 2012-2016 tends to decrease the time

interval of occurrence of crimes. Based on table 2 found that crime clock in Indonesia is tend to increased every year. In 2012, crime clock is 00.01'54" and crime clock is decreased to 00.01'28" in 2016. A decrease in time intervals that occur shows the intensity of crime is increasing. Becsi's research (1999) indicates that crime is dominated by the economy motives. Some variables related to economy, such as unemployment and personal income, are proven to significantly affect the crime rate in America. According to Umaru et.al (2013), there is a thought that poor people is lazy and refuses to work hard. And such poor people will choose crimes to fulfill their life necessities because it is one of the easy solutions.

According to Becker (1986), the analysis of crime with the economy approach uses the basic assumption that an individual makes a decision based on his rational thought without considering whether it is right or wrong. He just rests on the profit and loss that he gets from his decision making. Committing crime is a rational decision based on the maximum utility.

People's limitations in having education causes how tight the job opportunity he has, so that it will give impact on how high the unemployment level is. The high rate of unemployment in an area may increase the crime rate in that area. Becs (1999) in his research found a positive relationship between unemployment and crimes. According to Ajimotokin's research (2015), unemployment does not give effect on the crime rate in America. Opinions about unemployment affecting the crime rate are also strengthened by a research conducted by Rodriguez (2012). Melick (2003) also argues that historically there are two main general thoughts about the relationship

between unemployment and crime. One of the basic ideas is an individual in order to maintain a certain standard of living, so as long as he becomes unemployed it will be more likely to commit a crime.

The school enrollment rate in 2012 – 2016 is always increasing, which means that people's cognition of education also increases. In 2012 the school enrollment rate in Indonesia is at the rate of 66.33% and in 2016 it reaches 72.18%. According to Lochner (2007), the education level negatively and significantly affects the crime rate. Having more leisure time can be an opportunity for people to commit criminal actions. Although the school enrollment rate in Indonesia is getting better, in reality the ideal education result is hard to find, because education faces complex problems in the level of strategy and implementation such as the education equalization rate among the society, the allocation of education fund from the government, and the limitation of education facilities (Bustomi, 2012). Education also promotes human capital acquisition and expanding the tax base (Testa, 2018). Todaro and Smith (2015) stated that demand for education is influenced by two things, that are the hope for a student who is more educated to get a job with better results in the modern sector in the future for the students themselves and their families as well as good education costs which is direct or indirect which must be issued or borne by students and their families. Whereas from the supply side, the number of schools at the primary, secondary, and university levels is found more by the political process, which often does not relate to economic criteria.

Wages or income reflect incentives in committing crime that brings significant negative and big impact on the crime level

itself (Machin, 2003). Based on a research conducted by Hardianto (2009), the income rate negatively and significantly affects the crime rate in Indonesia, in which the low minimum income causes the high crime rate in the province. According to Beauchamp (2013), the minimum income change may affect the crimes. The increase in the minimum income negatively and significantly affects the crime rate. An empirical evidence shows that the increase in minimum wages has an effect on low-skilled workers to discourage crime. Economic reasoning gives the possibility that low labor wages can cause a person to commit a crime. Furthermore, the results show that crime has increased in various types of crime, such as increased theft, drug sales and violent crime. The increase in crime that occurs due to a decrease in workers' income and reduced time to work. Wages and unemployment have close relationship where high and low wages will affect the amount of supply and demand for labor which will ultimately have an impact on the number of unemployed. Wages are payments for physical and mental services to workers.

The high case completion rate is assumed as being able to make the criminal actors wary, so that they will not reiterate their deeds and the crime rate in the area will decrease. Becker (1968) formulated a supply of offense function developed from the motivation of offenders to participate in criminal acts. An individual chooses to participate in a crime if the expected utility obtained by using other time and resources for illegal activities is greater than the same time and resources for legal activities. Doyle et.al. (1999) found a result that the increase in the high case completion rate will decrease the crime. The criminal case completion rate in Indonesia in tends to

increase year by year. Based on a research conducted by Doyle et.al.(1999), the criminal case completion rate should be able to decrease the crime rate in Indonesia. But in reality the crime rate in Indonesia tends to increase. Crimes that occur do not always end with punishment for the perpetrators. The higher crime cases resolved by the police can be interpreted as the success of the police and security institutions in maintaining security in the community. The high level of settlement of the assumed cases can deter criminals, so that the perpetrators do not repeat their actions and the crime rate in the area will decrease.

The highest crime rate average is in Central Sulawesi Province of 303 cases while the lowest one is in Central Java with the crime rate of 43 cases. The highest unemployment level average is Aceh Province with the unemployment level of 9.53 % while the lowest one in NTT of 3.33 %. The highest school enrollment rates average is Yogyakarta Province of 82.33% while the lowest one is Bangka Belitung Island of 64.4%.

The highest income average in Indonesia is DKI Jakarta Province with the minimum income of Rp 2,390,000.- while the lowest one in East Java of Rp 940,000.-. The highest case completion rate average is North Sulawesi of 76 % while the lowest one is Maluku of 31,2%. The conditions of crime, unemployment, education, income, and case completion rate in each province in Indonesia are varying. Facing such conditions, it is very interesting to conduct farther research on how the development of crime rate in Indonesia using the economy approach is. The aim of this research is to find out the effects of unemployment, education, income, and case completion rate on the crime rate in Indonesia in 2012-2016.

RESEARCH METHOD

This study used a quantitative approach, starting from data collection, interpretation of the data, and appearance of the results. The dependent variable in this study is the crime rates, the risk of being exposed to crime per 100,000 people in general criminal cases reported by the number of cases in Indonesia. The Independent variables are unemployment (UNM), education (EDU), wages (W) and case completion rates (CLR). Unemployment variable used open unemployment rates as data proxy. Education variables used school enrollment rates, and wages variables used provincial minimum wages.

The data used in this research is secondary data in panel data (pooled data) that combines time series data period of 2012-2016 and cross section data of 31 Provinces in Indonesia. The number of observation (n) is 155. The data obtained comes from Statistic Indonesia (BPS) and Indonesia National Police. The analysis method used in this research is Generalized Least Square (GLS) with Fixed Effect Model (FEM) approach using the additional tool called E-Views 9. The test gone through is hypothesis test including determinant coefficient test, t test, and F test. The econometric effects of unemployment, education, wages, and case completion rate on the crime rate in Indonesia can be analyzed using the following equation:

$$CR_{it} = \beta_0 + \beta_1.UNM_{it} + \beta_2.EDU_{it} + \beta_3.WR_{it} + \beta_4.CLR_{it} + \mu_{it}$$

In which:

CR = Crime rates

UNM = Unemployment

EDU = Education

WR = Wages

CLR = Case Completion Rates
 β_0 = Intercept/Constanta
 $\beta_1, \beta_2, \beta_3, \beta_4$ = Regression coefficient for each variable
 μ = error term
i = cross section (provinces)
t = time series (years)

RESULT AND DISCUSSION

In the economic view, crime can cause inefficiency in resource allocation and distort prices so that the amount must be suppressed. It can be said that crime is a real threat to security. On the other hand, security at the national level is a requirement to maintain the life of a country through economic, political and defense and security activities. So that crime analysis cannot be separated from the reach of economics analysis. A rationality assumption in crime economy states that crime actors commit their deeds based on cost profit calculation and respond to incentives. Most crime cases in Indonesia are dominated by the economy motives. Based on its types, the crimes in Indonesia in 2012-2016 can be seen in table 3 as follows.

Based on the table above, it seems that the dominant type of crimes in Indonesia is crimes against the right of ownership on

average of 191,511 cases. Crime against the right of ownership is crimes of taking the right of ownership or other people's property. Such a crime more dominantly refers to the economy motives. While the least type of crimes reported in Indonesia is murder on average of 1.380 cases followed by Crimes against people's freedom and moral crimes. The average of crime rate in Indonesia in 2012-2016 is 186. It means that the risk of criminal cases in Indonesia is the occurrence of 186 criminal cases per 100,000 amounts of people.

Based on changes in crime rates calculated based on the difference between the end of the year and the beginning of the year. It is known that the highest increase in crime rates were Jambi and Gorontalo respectively 82 and 74. While the most drastic reduction in crime rates was Bangka Belitung Island and Riau amounted to -273 and -94 respectively.

Unemployment is caused by a gap between the provision of employment and the number of workers who are looking for work. Unemployment can also occur despite the high number of job opportunities but limited information, differences in basic skills available from those needed or even deliberately choosing to be unemployed. In

Table 3. Many Crimes based on Groups / Types of Crimes in 2012-2016

Groups / Types of Crimes	Year					Average
	2012	2013	2014	2015	2016	
Murder	1.456	1.386	1.277	1.491	1.291	1.380
Physical crimes	40.361	44.980	46.366	47.128	46.767	45.120
Moral crimes	5.102	4.850	5.499	5.041	5.247	4.179
Crimes against people's freedom	1.693	1.775	1.954	2.212	2.885	2.104
Crimes against right of ownership with violence	11.352	12.095	11.758	11.926	12.095	11.845
Crimes against right of ownership	122.781	123.033	117.701	114.013	120.026	119.511
Narcotics crimes	16.589	19.953	19.280	36.874	39.171	26.373
Fraud, Embezzlement & Corruption	48.044	49.626	48.608	54.115	49.198	49.918

Source: Operation Control Bureau, Indonesia National Police (2016)

this research, it is used to measure unemployment by using an indicator of open unemployment rate. Provinces that show the highest increase in open unemployment rates are Riau and Bangka Belitung Island with changes of 3.06 % and 2.86%. While the provinces that showed the most drastic decline in open unemployment rates were South Sumatra and Jakarta, each at -13.64% and -3.55%.

To measure the level of education in this study using the school enrollment rates indicator. The school enrollment rates is obtained from the proportion of school at certain levels of education in the age group that matches the level of education. Provinces with the highest school enrollment rates are Yogyakarta, Aceh and Maluku with an average school enrollment rate of 82.7%, 76.61% and 75.96%. While the province with the lowest school enrollment rate is Bangka Belitung Island and Papua, with an average school enrollment rate of 65.09%, and 64.18%.

Wages have a considerable influence on supply and demand for labor, the change in wages will affect the size of the supply of labor, in accordance with the law of supply that a high level of wages will cause an increase in the amount of labor offered. Various studies prove that better opportunities to earn income will reduce crime. Wages in this study are explained by regional minimum wage indicators. Minimum wages are defined as the lowest monthly wages which consist of basic wages including fixed allowances. Minimum wages have increased every year. Provinces that show the highest increase in minimum wages are Jakarta and West Java with changes of Rp 1,57 million and Rp 1,47 million. While the provinces that showed the lowest increase in minimum

wages were East Java and Yogyakarta which amounted to Rp 460.000 and Rp 430.000.

The case completion rates can be interpreted as the percentage of cases resolved by the police. The highest of in case completion rates an area means that the number of criminal cases reported by the society in the area is increasingly being resolved by the police. The case completion rates illustrates the success rate of the police in carrying out their duties to safeguard public security. Provinces that show the highest average of case completion rates is Central Java with 84,27 %, followed by North Sulawesi with 76,1 %.

The regression data of the effects of unemployment, education, wages, and case completion rate on the crime rate in Indonesia in 2012-2016 with fixed effect model and GLS method, the regression coefficient value for each variable of research is found with the following equation:

$$\begin{aligned} CR = & 339,7037 + 0,121688(\text{UNM}) + \\ & 0,621489(\text{EDU}) - 2,071736(\text{WR}) - \\ & 0,015233(\text{CLR}) \end{aligned}$$

Based on the data processing using Eviews 9 software with fixed effect model and GLS method, R^2 value of 0,954804 is found. This indicates that the variable of crime rate (CR) can be explained by the variables of unemployment (UNM), education (EDU), wages (WR), and case completion rate (CLR) of 95,48 %, while the rest of 4,52 % is explained by other factors except the model.

The F Test is intended to see whether there is the joint effect of the independent variables on the dependent ones those are the variables of unemployment (UNM), education (EDU), wages (WR), and case completion rate (CLR) on the crime rate

(CR). Based on the regression result of the effect of variables of unemployment (UNM), education (EDU), wages (WR), and case completion rate (CLR) on the crime rate (CR) in Indonesia in 2012-2016 using the fixed effect model, it finds $F_{statistics}$ values of 74,56224 with probability of 0.000000. From the result of F_{table} with numerator of $k-1=3$ and denominator $(n-k)=151$, it finds F_{table} of 2,66, so $F_{statistics} > F_{table}$. Therefore, it can be concluded that the independent variables jointly affect the dependent variables in Indonesia in 2012-2016.

The t statistic test aims at knowing how far the effect of each independent variable in individual way in explaining the dependent variable variation. The following is the table of t statistic test of unemployment (UNM), education (EDU), wages (WR), and case completion rate (CLR) on the crime rate (CR) in Indonesia in 2012-2016.

Based on table 4, it is found that $t_{statistics}$ for the variable of unemployment (UNM) is 0,066819 with probability of 0,9648 and not significance on significant level of 5%. At the significant level with $df = 151$, it finds the t_{table} value of 1.960 It can be seen that $t_{statistics} < t_{table}$ and it can be seen also the value of probability of 0,9648 that is not significant at the significant level of 5%. This indicates that H_0 is accepted. Therefore, the variable of unemployment has no significant effect to the crime rate in Indonesia.

The variable of education (EDU) with

$t_{statistics}$ is 0,109787 with probability of 0,9128 that is significant at $\alpha = 5\%$. So it can be found out that education has no significant effect to crime rate in Indonesia. The variable of wages with $t_{statistics}$ is -2,836365 with probability of 0.0054 and is significant at $\alpha = 5\%$. So it can be found out that minimum wages have negative and significant effect to the crime rate in Indonesia. Every increase of 1 % of minimum wages in Indonesia will bring a decrease in crime rates of 2 cases of crimes per 100.000 people.

The variable of case completion rate (CLR) with $t_{statistics}$ is -1,252252 with probability of 0.2129 and insignificant at $\alpha = 5\%$. So it can be found out that the case completion rate has negative and insignificant effect to crime rate in Indonesia.

Based on the analysis result, it can be explained that the variable of unemployment has positive and insignificant effect with coefficient value of 0,066819 to crime rate in Indonesia in 2012-2016. The result is not in accordance with the theory and the previous research that becomes the theoretical background of this research. This research is based on the popular perception of unemployment effect on crimes, in which the absence of occupation tends to cause the crime actions. Based on a theory presented by Becker (1968), people without any jobs experiences a decrease or loses income that will cause the expectation of utility of crime actions will be bigger than the legal income utility. The imprisonment cost in the form of

Table 4. t Statistic Test

Variables	t-Statistic	Prob	Ttabel
unemployment (UNM)	0,066819	0,9648	1.960
education (EDU)	0,109787	0,9128	1.960
wages (WR)	-2,836365	0.0054	1.960
case completion rate (CLR)	-1,252252	0.2129	1.960

Source: Data of research is processed by Eviews 9 program

opportunity cost of legal income that has been lost is also so small for someone without jobs. This causes an incentive for someone to commit crimes. Besides, unemployed people will have much leisure time, whereas according to Becsi (1995), crime actions are caused by much leisure time. Based on the previous research conducted by Kollias (2012), the unemployment level has positive and significant effect on the crime rate like occurring in Yunani.

Broadly speaking, the unemployment relationship depends on the net effect between the incentive motives of the crime actor and the opportunity to get the potential victim. Such a relationship is determined by the net effect between the Supply of Potential Offender and the Supply of Suitable Victim (Britt, 1994). It can be concluded that the estimation result of research states that the net effect of the Supply of Suitable Victim is stronger than the Supply of Potential Offender. Based on the perspective of opportunity of getting potential victim, unemployment is proved to have negative relationship with crimes. In Indonesia, unemployment tends to be viewed as a victim without promising compared with a crime actor. Furthermore, the increase in the number of unemployment also indicates the signs of decrease in economy. The activities of producer and consumer also tend to be slow down both for employed and unemployed people. The decrease in wealth accumulation will decrease the probability of the crime actor in attaining target with high booty, so it will decrease the crime rate. It is not appropriate with the findings of Hendri (2014) at a case study on 33 provinces in Indonesia in 2007-2011. The result of research states that there is a proof of significant negative relationship

between the unemployment rate and the property crime.

Unemployment in Indonesia has no effect on crime can occur due to several reasons; unemployed people have more leisure time, they prefer to wait for a permanent job or do part-time work in order to earn a living despite their small income. The current government has brought in investors who can absorb more labors, in addition to programs on works that are very useful for unemployed people in the village and get daily wages as long as the project is run. The government also provides the hope family programs (Program Keluarga Harapan-PKH) for the unemployed with the aim of their economic life for the better conditions.

Based on the analysis result, it can be explained that the variable of education has positive and significant effect with the negative coefficient value of $-0,109787$ on the crime rate in Indonesia in 2012-2016. This indicates that education has insignificant effect on the crime rate in Indonesia. The result is not in accordance with the research hypothesis stating that there is the negative and significant effect of the variable of education on the crime rate. It is based on a research conducted by Lochner (2007) who found that there is the negative and significant effect of the variable of education on the crime rate. The high education assumes that leisure time owned by someone will be fewer so that an opportunity to commit a crime will decrease. Besides, the high education level will indirectly increase the wages attained from legal occupation, so that it will decrease the incentives in committing crimes. When the school enrollment rates increases, the crime rate in Indonesia will decrease.

School enrollment rates do not have an influence on crime rates can be explained for several reasons; the high or low level of education of a person does not affect the opportunity and possibility or probability of committing a crime. People with low education can commit crimes such as theft and robbery. Highly educated people can also commit extraordinary crimes such as corruption and large-scale fraud. They have high level of knowledge and ability so they can manipulate and mark-up government and companies budgets. The corruptor arrested by the KPK are mostly from college graduates.

Based on the result of the previous research, it is found that wages directly has negative and significant to the crime rate in Indonesia. The regression result of this research indicates that the variable of wages indicates negative value and has significant effect with $\alpha = 5\%$ to the crime rate in Indonesia in 2012-2016 with the coefficient value of $-2,836365$. The result is in accordance with the theory and the previous research that become the theoretical background of this research.

The research hypothesis states that there is the negative and significant effect of the variable of wages on the crime rate. It is based on a research conducted by Hardianto (2009) who found that there is the significant negative effect of the variable of wages on the crime rate. This is strengthened by a research conducted by Beauchamp (2013) who found that the minimum wages change may affect the crimes. According to him, the increase in minimum wages negatively and significantly affects the crime rate. The initial assumption of the crime economy theory is the rationality of the potential crime actors, in which the crime action will be committed

when the crime utility is bigger than the legal income utility. The increase in wages will decrease the crime rate by decreasing the expectation of the net rewards received from the income utility of the crime rate (Becker, 1968).

Such conditions may explain that people's wages are the factor affecting the crimes positively or negatively. It has positive relationship when the income rate is an expectation of the booty going to find. It explains why crimes occur in big cities with high income level, while income has negative effect when the crime actor is the comparison of the expectation of illegal and legal sector profits, as explained in crime rational model. Wages in Indonesia have effect on the crime rate. But, provinces with high wages level should have low criminality level, but on the contrary, provinces with high wages level such Papua with the high minimum wages in Indonesia even have the crime rate more than the national average of 186, in which Papua have crime rate of 212 per 100,000 people.

Based on the analysis data, it can be explained that the variable of case completion rate has insignificant effect with the negative coefficient of $-1,252252$ against the crime rate in Indonesia in 2012-2016. The result is not in accordance with the research hypothesis stating that there are the negative and significant effects of the variable of case solution level on the crime rate. This is based on a research conducted by Doyle, et.al. (1999) who found that there is the significant negative effect of the variable of case completion rate on the crime rates.

Based on the theory presented by Becker (1968), the offering of crimes one of which is affected by a probability of the arrest of the criminal actor, in which the higher the

probability of the arrest will decrease the amount of the crime committed. In this research, probability of the arrest is found from an indicator of case completion rate. This research finds out that the increase in the case completion rate of the police has not been able to press the crime rate. When the case completion rate increases, it indicates the level of success of the police in solving the reported cases. This should be someone's risk outlook when he will commit a crime because the risk of being arrested will be higher. However, this has no effects on the crimes in Indonesia.

Such phenomena can be explained by some reasons. Becker (1968) explained that there are two kinds of people in committing crimes. The first one is those who are afraid of the risk so that they will prevent themselves from committing crimes when the risk level is high. The second one is those who do not care about the risk so that they keep committing crimes despite the risk of being arrested in the area is high. Based on such theory, it seems that the crime actors in Indonesia are more dominated by those who are not afraid of the risk when committing crimes.

CONCLUSION

The dominant type of crimes in Indonesia is crimes against the right of ownership on average of 191,511 cases. Based on the result of research above, a conclusion can be seen that unemployment, education, and case completion rates have insignificant affect to the crime rates in Indonesia. That's findings indicates that unemployed people prefer to wait for a permanent job or do part-time work. Our government is always trying to increase the amount of investment both domestically and abroad. People with low

education and high education could committed crimes in the different levels. There is the serious problems in Indonesian education is lack of character dan ethics development in every level of education. And there is an imbalance in the case completion rates in various regions, there are areas that have a high level of case completion rates, but there are also areas that have low case completion rates. While the minimum wages have negative and significant effect on the crime rates in Indonesia. When the minimum wages increase, the crime rates in Indonesia will decrease. Minimum wages in each region always increase every year based on agreements between local governments, employers and labor unions. Even though the entrepreneurs in the beginning usually refused because they felt that increasing the salary did not increase worker productivity. On average each year salaries increase by around 5-10%, which is also due to the pressure from inflation and increasing living costs. International labor day moments were used as opportunities to demand their welfare and prosperity.

REFERENCES

- Ajimotokin, Sandra *et al.* (2015). "The Effect of unemployment on Crime Rates in the U.S.". April 14th. Web. 2 Jan 2017. <https://smartech.gatech.edu/bitstream/handle/1853/53294/theeffectsofunemploymentoncrimerates.pdf>
- Ashby, Nathan J and Miguel A Ramos. (2013). Foreign Direct Investment and Industry Response to Organized Crime: The Mexican Case. *European Journal of Political Economy*, vol 30, pp 80-91.
- Barone, Guglielmo and Gaia Narciso.(2015). Organized crime and business subsidies: Where does the money go?. *Journal of Urban Economics*, Vol 86, pp 98-110.
- Beauchamp, Andrew and Stacey Chan. (2014). "The Minimum Wage and Crime". *The B.E. Journal of Economic Analysis & Policy*, vol. 14(3), pp 1-23.
- Becker, Gary S. (1968). "Crime and Punishment: An Economic Approach". *The Journal of Political Economy*, Vol 76, No.2.

- Beesi, Zsolt. (1999). *Economics and Crime in The States*. Atlanta: Federal Reserve Bank of Atlanta.
- Britt, Chester. (1994). "Crime and Unemployment Among Youths in the United States, 1958-1990." *American Journal of Economics and Sociology*, pp 99-109.
- Bustomi, Muhammad Ja'far. (2012). "Education inequality between districts / cities and their implications in Central Java Province". *Economics Development Analysis Journal*, 1(2). doi:10.15294/edaj.v1i2.477
- Carboni, Oliviero A, and Claudio Detotto. (2016). "The economic consequences of crime in Italy", *Journal of Economic Studies*, Vol. 43 Issue: 1, pp.122-140.
- Central Bureau of Statistics. (2016). *2016 Criminal Statistics*. Jakarta: Central Bureau of Statistics
- Central Bureau of Statistics. (2016). *2016 People's Welfare Indicator*. Jakarta: Central Bureau of Statistics
- Daniele, Vittorio and Ugo Marani, (2011), Organized Crime, The Quality of Local Institutions and FDI in Italy: A Panel Data Analysis. *European Journal of Political Economy* vol 27 issue 1 pp 132-142.
- Doyle, Joanne M, Ehsan Ahmed and Robert N. Horn. (1999). "The Effect of Labor Market and Income Inequality on Crime: Evidence from Panel Data". *Southern Economic Journal* Vol. 65, No. 4 pp. 717-738.
- Halicioglu, Ferda. (2012). "Temporal causality and the dynamics of crime in Turkey", *International Journal of Social Economics*, Vol. 39 Issue: 9, pp.704-720.
- Hardianto, Florentinus Nugro. (2009). "Analysis of Factors Affecting the Level of Crime in Indonesia from the Economic Approach". *Develop Economic Scientific Magazine* Vol. 3, No. 2: 28-41. Bandung: Faculty of Economics, Parahyangan Catholic University.
- Hendri, Davy. (2014). "Crime: A Dark Side of Income Distribution Inequality". *Journal of Public Policy Economics*, Vol.5, No.2.
- Kollias, Christos and Suzanna Maria Paleologou. (2012). "Labours Market Conditions and Crime in Greece". *International Journal of Social Economics*, Vol. 39 Iss 12 pp. 983 – 1000
- Levitt, Steven D. (2001). "Alternative Strategies for Identifying the Link Between Unemployment and Crime". *Journal of Quantitative Criminology*. Vol. 17, No. 4 pp. 377-390.
- Lochner. Lance. (2007). "Education and Crime". *International Encyclopedia of Education*. Canada.
- Machin, Stephen and Costas Meghir. (2004). "Crime and Economic Incentives". *The Journal of Human Resources*.
- Melick, Matthew D. 2003. "The Relationship between Crime and Unemployment". *The Park Place Economist*: volume 11.
- Reksohadiprodjo, Soekanto dan AR. Karseno. 2009. *Ekonomi Perkotaan*. Yogyakarta: BPFE Universitas Gajah Mada.
- Rodriguez, Firouz Fallahi Hamed Pourtaghi Gabriel. (2012). "The Unemployment Rate, Unemployment Volatility, and Crime". *International Journal of Social Economics*, Vol. 39 Iss 6 pp. 440 – 448
- Soares, Rodrigo R. (2015). "Welfare costs of crime and common violence", *Journal of Economic Studies*, Vol. 42 Issue: 1, pp.117-137.
- Testa, Patrick A, (2018). Education and Propaganda: Tradeoffs to Public Education Provision in Nondemocracies. *Journal of Public Economics*. Vol 160 pp 66-81.
- Todaro, Michael P, and Stephen C Smith (2015). *Economics Development, 12th edition*. Addison Wesley.
- Umaru, Aminu *et al.* (2013). "Relationship Between Crime Level, Unemployment, Poverty, Corruption And Inflation In Nigeria (An Empirical Ananlysis)". *Global Advanced Research Journal of Management and Business Studies* (ISSN: 2315-5086) Vol. 2(8) pp. 411-422.