

# Are Early Childhood Education and Family Background Really Important for Children's Future? Evidence from Indonesia

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## Abstract

The quality of education in Indonesia has not improved even though the poverty rate has fallen. As education accelerates economic growth and productivity, improvement in education, especially in early childhood education is a must. Not only determines macroeconomics indicators, but education also determines microeconomics indicators such as people's income. As education needs tuition fees, family socio-backgrounds such as parents' employment and residential also affect people's income. This study aims to examine the impact of education, and family social background on people's income using IFLS 5 data with ordinary least squared regression. The result shows that education and family socio-background have a great impact on children's future income. The return from the interaction between early education and tertiary education is significantly higher than the returns from primary and secondary levels. Individuals who live in an urban area, come from a mixed-ethnicity family, and has a parent who worked as an employee tends to have a higher income. Based on that result, parents should encourage and support their children to take complete education, from early childhood education to higher education and pay attention to their social-economics condition. People should enroll their kids in early childhood education and escalate their education level. The government should also intensify some programs such as PIP, Bidikmisi, employment policy, and transmigration to optimize the impact of education and social factor on their citizens' income.

**Keywords:** income; early childhood education; family background.

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### **I. Introduction**

For some people in developing countries, education becomes a luxury thing. They cannot afford appropriate education because many of them should struggle for other basic needs such as food and housing. As a result, shortcomings in education persist in many regions of the developing world, hampering economic growth and human development.

In one hand, many previous studies show that education accelerates economic growth, national productivity, political stability, social cohesion, poverty alleviation, and inequality reduction (Chabbott & Ramirez, 2000; Levine *et al.*, 2004; Milligan *et al.*, 2004). On the other hand, existing poverty and inequality worsened through poor education. Several previous studies also have shown that poverty significantly reduces the probability of school participation.

As developing countries, Indonesia also faces some problems in education and poverty. Although the poverty rate in Indonesia has decreasing until one digit, the level of education in Indonesia does not improve well since the last decade. Based on mean years of schooling data, the level of education in Indonesia was still low, only 8.17 years in 2018. It means that, on average, people in Indonesia only graduated from junior high school. This situation even worse in several provinces, such as in Papua and Nusa Tenggara Barat, in which their mean years of schooling are only about 6 and 7 years (Badan Pusat Statistik, 2018).

Regarding poverty and education, children experience higher levels of poverty compared with the general population. Even areas with relatively low poverty rates can still have large numbers of low-income households. Java, for example, was home to nearly 4.6 million children living below the national poverty line in 2018 (BAPPENAS & UNICEF, 2019). One of the causes of high child poverty is the coverage of social protection programs, especially among young children. There is no fixed, static group of households at the bottom of the distribution that can be a target. The simulation conducted by BAPPENAS & UNICEF (2019) suggested that continued investment in social protection will be critical to achieving more inclusive growth. One of them is Indonesia should invest heavily in improving children's access to education.

Children's education is not only limited to basic and formal schools such as elementary and high schools but also early childhood development, including early childhood education. Several studies show that early childhood interventions have important long-term economic benefits. Investment and experiences in childhood period create the foundations for lifetime success and are estimated to have substantially higher rates of return than most remedial later-life skill investments (Almond & Currie, 2011; Campbell *et al.*, 2002; Cunha *et al.*, 2006; Gertler *et al.*, 2014; Heckman, 2000).

However, reducing poverty through education is not cheap. Indonesia's government has indeed allocated at least 20 percent of the national budget on education, as stated in amended 1945 Constitution article 31 paragraph 4, but in practice, most of that budget is allocated to teachers' compensation, not for improvement in education quality. As a result, the quality of education in Indonesia is almost the same as ten years ago. To gain high-quality education, parents should pay more, whether to have additional private courses or enroll their children in high-quality private schools. Moreover, regarding early childhood education, as Indonesia's government only gives subsidies for elementary schools to high schools, parents should prepare their budget to enroll their children in early childhood

education. As a result, only children from middle income or high-income families can enjoy their early childhood education. Even though early childhood education is essential, based on Susenas 2017, only five from 10 children enrolled in their early education (Kementerian Pemberdayaan Perempuan dan Badan Pusat Statistik, 2018). This figure indicates that family background also affects future income by affecting early childhood education enrolment process. Here, the family background not only about economic status but also about social conditions such as parents' married status, ethnicity, and residence.

As income determines social-economic status, it is interesting to examine the impact of education and family social background on people's income.

Based on those backgrounds, there is two research question on this study:

1. How does taking early childhood education affect people's future income?
2. How do personal's social backgrounds, such as the family's wealth and parents' race, affect people's future income?

## II. Literature Reviews

Education has a significant role for children, it provides chances to develop mentally, physically, and social awareness in them (Childfund, 2019). Not only affects children in their early age, but education also has important long-term benefit, and the return to education are typically higher in developing countries (Gertler et al., 2014; Psacharopoulos & Patrinos, 2004). Moreover, education has a significant impact both for men and women. However, education affects them at different levels of education. According to Psacharopoulos & Patrinos (2004), generally, women get more benefits from education investment, but men receive greater returns from primary education.

In general, almost at the whole age level, education has an essential role in which education can explain 30 percent of the variation in income in a human capital earnings function (Almond & Currie, 2011). The recent studies show that education, especially early childhood educations (ECE), have influenced later life outcomes. A multistage technology governs human skill. Every stage corresponds to a period in the life cycle of a child (Cunha et al., 2006). According to their study's results, several levels of technology may be more productive in producing some skills than another level, and some inputs may be more productive at some stages than at other stages. If one stage alone is effective in producing a skill, it is called a "critical period" for that skill. Early childhood ages are critical periods for some essential skills, such as cognitive and psychosocial skill development. Therefore, stimulation and intervention in this period are important. In the short term, early intervention lowers the cost of later investment. Young children at risk for school failure who participate in early childhood programs are less likely to repeat grades, resulting in lower costs to the education system over time (Knudsen *et al.*, 2006). Regarding this critical period, several studies report that return to ECE not only on later education but also on earnings. Using the National Longitudinal Survey of Youth-child Sample Data, Cunha & Heckman (2008) found that a 1 percent increase in parental investments at ages 6-7 increases incomes by 2.49 percent. Furthermore, as a policy, based on Campbell et al. (2002), a high-quality child care program can have a lasting impact on the academic performance of children from poverty backgrounds.

In Indonesia, since education has a great benefit, the government of Indonesia has implied some programs to improve the quality of education from kindergarten until higher education. For kindergarten, in 2019, the government of Indonesia allocated 4.47 billion rupiahs as Operational Assistance for the Implementation of Early Childhood Education. Purnomo (2019), in his studies in Kebumen municipality, found that contribution of funding allocation to the program improving quality of early childhood education is quite enough.

For primary and secondary education, the government of Indonesia has provided Program Indonesia Pintar (PIP) to help pupils to meet their basic education needs such as books, uniforms, etc. In general, the effectiveness of this program is quite good. Ahmad (2018), in his study held in 6 provinces in Indonesia, found that PIP has improved School Participation Rates and Human Development Index in those provinces. In a smaller region, another study conducted by Karmila *et al.* (2019) show that PIP has a significant effect on 12-year compulsory education stub in Blangkejeren district in Aceh province. However, other studies found that PIP is not effective in improving the quality of education due to some reasons, such as misuse, parental reasons, and financial mismanagement (Hasan, 2017; Septiana Zulvia dan Suyanto, 2017).

Not only allocate a budget for early, primary, and secondary education, but the government also allocated a budget for higher education called Bidikmisi. Bidikmisi is tuition assistance for prospective students who are economically disadvantaged and have good academic potential to study in tertiary institutions in excellent study programs until they graduate on time. However, the effectiveness of this program questioned due to several reasons, such as mistarget and low achievement results. Studies conducted by Andriadi, *et.al.* (2019) and Kurniawan (2017) found that many Bidikmisi awardees cannot reveal great achievements as they expected. Some of them also came not from a low-income family and only got a low GPA. But, in another study conducted by Nim (2016), Bidikmisi should be appreciated because it improves the chance of students from a low-income family to reach higher education. He also said that this program would be successful as long as it fulfills four criteria: right policy, right implementing, right on target, and the right environment.

Despite all the work done by the government, the return to education on income does not stand alone. Several previous studies have recognized that the cross-sectional correlation between education and earnings may differ from the true causal effect of education. Then, the instrumental variables (IV) on education and earning formula introduced. IV estimates of the returns to education based on the family background are higher than classic Ordinary Least Squares, which is usually used by early studies such as Mincer (1974) and Becker & Chiswick (1966).

Family background explained many portions of the variance in children's educational attainment, more than school quality did, and this effect strikes during the later preschool years and continues through childhood (Jencks, 1972; Rutter, 1985b). Those results indicate that family backgrounds have an important role in educational opportunities and preferences. According to Björklund & Salvanes (2011), to reach the equality of opportunity, family background is relevant because people have not chosen their family background and thus cannot be held accountable for any impact of family background on their status during adulthood. This reasoning has motivated several education reform policies that aim to diminish the correlation between educational attainment and family background. The study conducted by Aakvik *et al.* (2005) suggests public interventions alleviate the effects of family background should thus also be targeted at a child's early years, the shaping period for the cognitive and non-cognitive skills important later in life.

Several studies of children's early cognitive and physical development agree that family earning in the first five years of life is a strong correlate of developmental outcomes in early and middle childhood period (Duncan *et al.*, 1994; Miller & Korenman, 1994; Smith *et al.*, 1997). Family's income is important because it ensures families to provide richer learning environments for their children, then policies that enrich learning environments might be more efficient in meeting child development goals than would a more general redistribution of income.

Not only the family's income condition, but the family situation also has a great impact on children's education. Based on the report by Coleman (1968) in Heckman (2000), failed families produce low-capacity, ineffectively persuaded pupils who don't prevail in school. The results also said that long-run family and environmental factors play a resolute role in developing the capability and expectations of children.

Another family background indicator used in this study is parental marriage culture, whether the children born from interethnic parents or same-ethnic parents. There is some concern that children from the interethnic family face greater difficulties and experience lower levels of well-being than children living with the same race/ethnic parents (Cooney & Radina, 2000). However, this opinion is still debatable. Some previous studies, such as McDermott & Fukunaga (1977) and Porterfield (1978) argued that offspring in interethnic families were at greater risk for more serious hazard for lower levels of confidence, trust, and feelings of acceptance exhibited more prominent degrees of anxiety, restlessness, aggressiveness, and withdrawal. But, other studies, like Johnson & Nagoshi (1986), Stephan & Stephan (1991), and Pearce-Morris & King (2012) argued that children in inter-ethnic families did not face significantly greater risk of developing internal or social adjustment problems such as levels of self-esteem, feelings of alienation, or stress, than children in same-ethnic families.

As a multicultural country, Indonesia faces many challenges due to this situation. One of the government policies effective in overcoming this problem is transmigration. Transmigration program is useful to increase the tolerance between groups. The study conducted by Novaisi (2019) indicated that social interaction between residents and transmigrants develops tolerance in early childhood occurs within the scope of religion, social, culture, and tolerance between ethnic groups and races. This phenomenon supported by several factors, such as imitation, sympathy, cultural confusion, mixed marriages, the openness of society in differences, and areas of residence.

Not only parents' cultures, but parents' marital status also affects children's education and their future. Several studies indicate support that marital dissolution leads economic-deprivation explanation, decreasing social resources, and demotivating achievement, thus leading to interruption of schooling and early entry into adult roles (Keith & Finlay, 1988; McLanahan, 1985).

### III. Data and Methodology

This research uses data from the Indonesia Family Life Survey (IFLS) wave 5. The models in this study based on models in Bowles, Gintis, & Osborne (2001) with several modifications due to the availability of data. They developed models to analyze the effect of schooling and parental socioeconomic background. The model specification used in this study is:

$$\ln \text{income} = \beta_0 + \beta_1 \text{early\_edu}_i + \beta_2 \text{int}1_i + \beta_3 \text{int}2_i + \beta_4 \text{int}3_i + \beta_5 \text{rural}_i + \beta_6 \text{parent\_ethn}_i + \beta_7 \text{parent\_married}_i + \beta_8 \text{parent\_employment}_i + u_{1i} \quad (1)$$

Where  $\ln \text{income}$  is personal annual income;  $\text{early\_edu}$  is the dummy variable that represents enrolment status in early childhood education;  $\text{int}1$ ,  $\text{int}2$ , and  $\text{int}3$  is the dummy variable that represents the interaction between someone who graduated from primary education, secondary education, tertiary education and enrolled in early childhood education, respectively;  $\text{rural}$  is the dummy variable that represents the individual in rural areas;  $\text{parent\_ethn}$  is the dummy variable that represents whether the parents have the same or different ethnicity;  $\text{parent\_married}$  is the dummy variable that represents whether the parents still living together when respondent was 12 years old;  $\text{parent\_employment}$  is the dummy variable that represents whether the parents worked as self-employed, employee, or others; and  $u_{1i}$  is error term.

#### IV. Results, Analysis, and Discussions

Ordinary least square used to estimate the model. The result is:

**Table 2.** Regression's Result

VARIABLES	(1) log_income
early_edu	0.357*** (0.0248)
int1	0.107*** (0.0103)
int2	0.221*** (0.00941)
int3	0.380*** (0.0127)
Rural	-0.276*** (0.0212)
parent_ethn	-0.0727** (0.0365)
parent_married	-0.00107 (0.00893)
parent_employment (employee)	0.117*** (0.0242)
parent_employment (others)	-0.0939*** (0.0294)
Constant	16.13*** (0.0528)
R-squared	0.118

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The result shows that education significantly affects earning. Someone who enrolled in early childhood education tends to have income 35.7 percent higher than someone who does not. This result similar to Cunha & Heckman (2008) that show there is an incremental education investment income ratio, especially for education investment in early age. Furthermore, the interaction between enrolled in early education and level of graduated education shows that the estimated model results show an increase in income by 10.7 percent for primary education, 22.1 percent for secondary education, and 38.0 percent for tertiary education. Thus, the return from the interaction between early education and tertiary education is significantly higher than the returns from primary and secondary levels, a finding also consistent with the view reported by Majumder & Chowdhury Biswas (2017) that increasing investment in education may lead an individual from being poor to non-poor.

Regarding social background, the result shows that individual that located in the urban areas likely has a higher income than those in rural areas. This result is similar to the study by Gounder & Xing (2012). The coefficient of parent\_ethn indicates that a person who has parents with different ethnicity tend to have income 7.27 percent higher than who has parents with the same ethnicity. This result is quite different from previous studies which argue that children from interethnic family usually face some difficulties in their childhood period as well as in their early adult period, such as in studies by McDermott & Fukunaga (1977) and Porterfield, (1978). The situation in Indonesia may produce this different result. As Indonesia consists of many ethnic and cultures, children

from an interethnic family tend to have a higher tolerant level, more democratic, and easier to adapt to various situations. As a result, they tend to have more capability, especially in language ability, compared to those from the same-ethnic family (Barus *et al.*, 2011). Then, not as predicted, *parent\_married* does not significantly affect personal income. It is different from the argument of Heckman (2000) that said broken-home families produce low-ability and poorly motivated students who do not succeed in school and lead them to failed adults. It means that whether a person living in a complete family or broken-home family when they were children, it does not affect their future economic status. Then, as the results of many previous studies, parents' former employment status significantly affects an individual's income. Someone who has parents that worked as an employee in government or private sectors tend to have 11.7 percent higher income than they who have a parent that worked as an entrepreneur or self-employed.

On the other hand, someone who has parents that worked as casual workers or only received transfer or pension tend to have 9.39 percent less income than they who have a parent that worked as entrepreneur or self-employed. As employees and entrepreneurs are more stable jobs than casual workers (in which both employees and entrepreneurs have a higher income than casual workers), their children have a greater chance of having a brighter future compared to those with parents who worked as casual workers. This result is similar with many previous studies such as Björklund & Salvanes (2011); Duncan, Brooks-Gunn, Jean Yeung, & Smith (1998); Jencks, (1972); Miller & Korenman (1994); Rutter, (1985a); Smith et al., (1997).

## **V. Recommendation and Conclusion**

### **5.1. Recommendation**

The economic analysis models for Indonesian's IFLS data supports the view that income, education, and family socio-background are connected. The return of early childhood education on income is positive and significant, and its effect almost the same with tertiary education. It means that the government should encourage parents to enroll their children in kindergarten or another equivalent education level. As early childhood developments have a great impact on children's future, the government should also pay attention to the facilities of early childhood developments such as curriculum, tutors, and standardization. Those supports are essential because education provided to children aged 3-6 years is not only aimed at introducing children to the fields of learning to interact with their peers. Furthermore, PAUD has the main function of developing all aspects of child development, including cognitive, language, physical (motor and fine), social and emotional development (Kementerian Pemberdayaan Perempuan dan Badan Pusat Statistik, 2018). Therefore, the best PAUD curriculum should be prepared to get the best result. In order to accommodate industry revolution 4.0, the PAUD curriculum should be adjusted. Start-up in early education could be an alternative to elevate the quality of early childhood education. One of the start-ups that should be improved is the "Ruang Guru PAUD website" at <http://anggunpaud.kemendikbud.go.id/>.

Adaptation of the new literacy movement integrated by making adjustments to the curriculum and learning system in response to the industrial era 4.0 (Yahya, 2018). Not only the curriculum, but the quality of tutors should elevate by giving them intensive training and enough remuneration. This rewards effectively to motivate them to teach better (Massalim, 2019). To fulfill this requirement, the government, both national and local government, should allocate enough budget on early childhood education.

Not only early childhood education, but the government should also pay attention to other formal educations, from elementary school to higher education. Interact with early education, the higher the education level, the more its return on people's income. Education negatively linked with poverty and higher levels of education would aid in the alleviation of poverty (Awan et al., 2011) as higher educational level enhances the

possibility of an individual to obtain higher earnings. Ongoing government programs that increase access to education such as Program Indonesia Pintar (PIP) and Bidikmisi must be continued, especially to those in the urban and rural poor households, and if it is possible, the government should increase the number of beneficiaries. Based on the odds ratios of the result, these education variables account for more impact on people's income than family socio-background variables.

Regarding PIP, although it has a great impact on increasing school participation, depth evaluation is needed to improve the quality of the program. The administration process of PIP become the biggest obstacle (Septiandika, 2017; Zahimu, 2019). Therefore, its administration process should be simpler. Unlike PIP, Bidikmisi reaps higher controversy on their awardee selections. The transparency on awardee selections questioned due to their outcome in universities. Not only its transparency, but its complicated administration, mistarget, and low achievement of its awardee also become challenges for Bidikmisi improvement (Andriadi et al., 2019; Kurniawan, 2017; Pardede, 2015). Regardless of its weakness, Bidikmisi is successful in improving higher school participation, especially among low-income families.

Regarding family socio-background, because the result shows that there is a significant difference in average income between those who live in rural areas and urban areas, the government should ensure that their programs as inclusive as possible. So, all people living both in rural and urban areas enjoy the result of development equally. Then, the result also shows that children from mixed-ethnicity parents tend to have higher income; social interaction should be encouraged. Because social interaction needs tolerance, appeal for social harmony should be socialized. Another way to escalate inter-ethnicity interaction is migration, in this case: transmigration. Not only have benefit for children's future, but transmigration also has a great impact on regional economic development.

Regarding socio-background, another significant variable is the parents' former employment. The result shows that children with parents worked as a casual worker or only received transfer and pension tend to have less income compared to those who their parents worked as an entrepreneur or employee. Because casual workers are vulnerable to lose their work, the government should pay attention to the policy of the employment contract system and their payment mechanism.

## **5.2. Conclusion**

Education and family socio-background have a great impact on children's future income. Not only formal education such as elementary school to higher school, but early childhood education also has an essential effect on people's income. It means that to achieve higher income. People should enroll their kids in early childhood education and escalate their education level. Residential, parents' culture, and parents' former employment also determine their children's income in the future. Based on that result, to ensure their children's future, parents should pay attention to their children's education, encourage and support their children to take complete education, from early childhood education to higher education. Concerning socio-background factors, parents should care about their capability so that they can get a good job and good earnings for their family. The government should support their people's efforts by conducting several programs such as Program Indonesia Pintar (PIP), Bidikmisi, inclusive work environment, good wage scheme for casual workers, and transmigration.



## References

- Aakvik, A., Vaage, K., & Salvanes, K. G. (2005). Educational attainment and family background. *German Economic Review*, 6(3), 377–394. <https://doi.org/10.1111/j.1468-0475.2005.00138.x>
- Ahmad. (2018). Kinerja Program Indonesia Pintar Melalui Kartu Indonesia Pintar (Survei Pada 6 Provinsi di Indonesia). *Jurnal Ekonomi Dan Manajemen*, 19(1), 523–542.
- Almond, D., & Currie, J. (2011). Human capital development before age five. In *Handbook of Labor Economics* (Vol. 4). [https://doi.org/10.1016/S0169-7218\(11\)02413-0](https://doi.org/10.1016/S0169-7218(11)02413-0)
- Andriadi, K. D., Asih, E. T. W., Dewi, A. A. W., Nugraha, K., & Samadhinata, M. D. (2019). Efektifitas Penyelenggaraan Program Beasiswa Bidikmisi Di Universitas Pendidikan Ganesha. *Jurnal Ilmiah Akuntansi Dan Humanika*, 8(3), 206–212. <https://doi.org/10.23887/jinah.v8i3.20015>
- Awan, M., Sarwar, M., Muhammad, W., Awan, M. S., Malik, N., Sarwar, H., & Waqas, M. (2011). Munich Personal RePEc Archive Impact of education on poverty reduction IMPACT OF EDUCATION ON POVERTY REDUCTION. *International Journal of Academic Research*, 3.
- Badan Pusat Statistik. (2018). Indeks Pembangunan Manusia 2018. In *Badan Pusat Statistik* (Vol. 1).
- BAPPENAS & UNICEF. (2019). Achieving the SDGs for children in Indonesia: Emerging findings for reaching the targets.
- Barus, R. K. ., Simatupang, I., dan Noviyanti, F. R. (2011). Pengaruh Komunikasi Antar Budaya Dalam Keluarga Di Komplek Setia Budi Indah. *Jurnal Ilmu Sosial-Fakultas Isipol Uma*, 4(2), 154–161.
- Becker, G. S., & Chiswick, B. R. (1966). Education and the Distribution of Earnings. *The American Economic Review*, 56(1), 358–369.
- Björklund, A., & Salvanes, K. G. (2011). Education and Family Background. Mechanisms and Policies. In *Handbook of the Economics of Education* (Vol. 3, pp. 201–247). <https://doi.org/10.1016/B978-0-444-53429-3.00003-X>
- Bowles, S., Gintis, H., & Osborne, M. (2001). The determinants of earnings: A behavioral approach. *Journal of Economic Literature*, 39(4), 1137–1176. <https://doi.org/10.1257/jel.39.4.1137>
- Campbell, F. A., Ramey, C. T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). Caregiver Training and Classroom Quality in Child Care Centers Caregiver Training and Classroom Quality in Child Care Centers. *Applied Developmental Science*, 6(1), 42–57. <https://doi.org/10.1207/S1532480XADS0601>
- Chabbott, C; Ramirez, F. O. (2000). Development and Education. In *Handbooks of Sociology and Social Research* (pp. 11–20). [https://doi.org/10.1007/978-3-531-90607-2\\_2](https://doi.org/10.1007/978-3-531-90607-2_2)
- Childfund. (2019). Poverty and Education. Retrieved from <https://www.childfund.org/poverty-and-education/>
- Coleman, J. S. (1968). Equality of Educational Opportunity. *Integrated education*, 6(5), 19–28. <https://doi.org/10.1080/0020486680060504>
- Cooney, T. M., & Radina, M. E. (2000). Adjustment problems in adolescence: Are multiracial children at risk? *American Journal of Orthopsychiatry*, 70(4), 433–444. <https://doi.org/10.1037/h0087744>
- Cunha, F., & Heckman, J. (2008). Formulating, Identifying and Estimating the Technology of Cognitive and Noncognitive Skill Formation. *Journal of Human Resources*.
- Cunha, F., Heckman, J. J., Lochner, L., & Masterov, D. V. (2006). Chapter 12 Interpreting the Evidence on Life Cycle Skill Formation. *Handbook of the Economics of Education*, 1(06), 697–812. [https://doi.org/10.1016/S1574-0692\(06\)01012-9](https://doi.org/10.1016/S1574-0692(06)01012-9)

- Duncan, G. J., Brooks-Gunn, J., Jean Yeung, W., & Smith, J. R. (1998). How much does childhood poverty affect the life chances of children? *American Sociological Review*, 63(3), 406–423. <https://doi.org/10.2307/2657556>
- Duncan, G. J., Brooks - Gunn, J., & Klebanov, P. K. (1994). Economic Deprivation and Early Childhood Development. *Child Development*, 65(2), 296 – 318. <https://doi.org/10.1111/j.1467-8624.1994.tb00752.x>
- Gertler, P., Heckman, J., Pinto, R., Zanolini, A., Vermeersch, C., Walker, S., ... Grantham-mcgregor, S. (2014). Labor market returns to an early childhood stimulation intervention in Jamaica. *Science*, 344(6187), 998–1002.
- Hasan, N. F. (2017). Efektivitas Penggunaan Dana Bantuan Pendidikan (Studi Kasus pada Siswa Peserta PIP dari Keluarga Peserta PKH di SDN Jogosatru Sidoarjo). *MODELING: Jurnal Program Studi PGMI*, 4(1), 1–18. <https://doi.org/DOI:https://doi.org/10.36835/modeling.v4i1.102>
- Heckman, J. J. (2000). Policies to foster human capital. *Research in Economics*, 54(1), 3–56. <https://doi.org/10.1006/reec.1999.0225>
- Jencks, C. (1972). Inequality: A reassessment of the effect of family and schooling in America.
- Johnson, R., & Nagoshi, C. (1986). The adjustment of offspring of within-group and interracial/intercultural marriages: A comparison of personality factor scores. *Journal of Marriage and the Family*, 279–284. Retrieved from <https://www.jstor.org/stable/352395>
- Karmila, Zulfan, & Nusuary, F. M. (2019). Efektivitas Program Indonesia Pintar (Pip) Terhadap Rintisan Wajib Belajar 12 Tahun di Kecamatan Blangkejeren Kabupaten Gayo Lues. *Jurnal Ilmiah Mahasiswa FISIP Unsyiah*, 4(4), 1–15. Retrieved from <http://www.jim.unsyiah.ac.id/FISIP/article/view/12952/5588>
- Keith, V. M., & Finlay, B. (1988). The Impact of Parental Divorce on Children's Educational Attainment, Marital Timing, and Likelihood of Divorce. *Journal of Marriage and the Family*, 50(3), 797. <https://doi.org/10.2307/352648>
- Kementerian Pemberdayaan Perempuan dan Badan Pusat Statistik. (2018). Profil Anak Indonesia 2018. In Kementerian Pemberdayaan Perempuan dan Badan Pusat Statistik (Vol. 5).
- Knudsen, E. I., Heckman, J. J., Cameron, J. L., & Shonkoff, J. P. (2006). Economic, neurobiological, and behavioral perspectives on building America's future workforce. In *Pnas* (Vol. 103). <https://doi.org/10.1073/pnas.0600888103>
- Kurniawan, A. (2017). Efektivitas Penyelenggaraan Program Bantuan Biaya Pendidikan Bidikmisi Di Universitas Riau. *Jurnal Online Mahasiswa Fakultas Ilmu Sosial Dan Ilmu Politik Universitas Riau*, 4(1), 1–14. Retrieved from <https://www.neliti.com/publications/119566/efektivitas-penyelenggaraan-program-bantuan-biaya-pendidikan-bidikmisi-di-univer>
- Levine, R. A., Levine, S. E., Rowe, M. L., & Schnell-Anzola, B. (2004). Maternal literacy and health behavior: a Nepalese case study. *Social Science & Medicine*, 58, 863–877. [https://doi.org/10.1016/S0277-9536\(03\)00261-2](https://doi.org/10.1016/S0277-9536(03)00261-2)
- Majumder, S., & Chowdhury Biswas, S. (2017). The Role of Education in Poverty Alleviation: Evidence from Bangladesh. Retrieved from <https://www.researchgate.net/publication/325057266>
- McDermott, J. F., & Fukunaga, C. (1977). Intercultural family interaction patterns. *Adjustment in Intercultural Marriage*, 81–92.
- McLanahan, S. (1985). Family Structure and the Reproduction of Poverty. *American Journal of Sociology*, 90(4), 873–901. <https://doi.org/10.1086/228148>
- Miller, J. E., & Korenman, S. (1994). Poverty and children's nutritional status in the united states. *American Journal of Epidemiology*, 140(3), 233–243. <https://doi.org/10.1093/oxfordjournals.aje.a117242>

- Milligan, K., Moretti, E., & Oreopoulos, P. (2004). Does education improve citizenship? Evidence from the US and the UK *Journal of Public Economics*, 88 (9-10), 1667-1695.
- Mincer, J. (1974). Schooling, Experience, and Earnings. *Human Behavior & Social Institutions* No. 2. Retrieved from <https://eric.ed.gov/?id=ED103621>
- Nim, D. (2016). Efektivitas Implementasi Kebijakan Program Beasiswa Bidikmisi di Universitas Tanjungpura Pontianak Kalimantan Barat. *PUBLIKA-Jurnal Ilmu Administrasi Negara*, 4(4).
- Novaisi, R. (2019). Interaksi Sosial Transmigran Jawa Dengan Masyarakat Lokal Dalam Membangun Sikap Toleransi Pada Anak Usia Dini Di Kecamatan Seram Utara Timur Seti Kabupaten Maluku Tengah. Unnes.
- Pearce-Morris, J., & King, V. (2012). The Well-Being of Children Living with Interethnic Parents: Are They at a Disadvantage? *Journal of Family Issues*, 33(7), 898-919. <https://doi.org/10.1177/0192513X11420938>
- Porterfield, E. (1978). Black and White mixed marriages. Burnham Inc Pub.
- Psacharopoulos, G., & Patrinos, H. A. (2004). Returns to investment in education: A further update. *Education Economics*, 12(2), 111-134. <https://doi.org/10.1080/0964529042000239140>
- Purnomo, K. I. (2019). Program Peningkatan Mutu Pendidikan Anak Usia Dini (PAUD) Pada Dinas Pendidikan Kabupaten Kebumen. *Jurnal Ekonomi Bisnis*, 3(1), 53-64. Retrieved from <https://jurnal.politeknik-kebumen.ac.id/index.php/E-Bis/article/view/119>
- Rutter, M. (1985a). Family and school influences on cognitive development. *Journal of Child Psychology and Psychiatry*, 26(5), 683-704.
- Rutter, M. (1985b). Family and School Influences on Cognitive Development. *Journal of Child Psychology and Psychiatry*, 26(5), 683-704. <https://doi.org/10.1111/j.1469-7610.1985.tb00584.x>
- Septiana Zulvia, A., dan Suyanto, T. (2017). Efektivitas Pemanfaatan Dana Program Indonesia Pintar Siswa Di Desa Ngrayun Untuk Pemenuhan Wajib Belajar 9 Tahun. *Kajian Moral Dan Kewarganegaraan*, 5(03), 716-734. Retrieved from <https://jurnalmahasiswa.unesa.ac.id/index.php/jurnal-pendidikan-kewarganegaraan/article/view/21943/19960>
- Smith, J. R., Brooks-Gunn, J., & Klebanov, P. K. (1997). Consequences of living in poverty for young children's cognitive and verbal ability and early school achievement. In *Consequences of growing up poor* (Vol. 132, p. 189).
- Stephan, W. G., & Stephan, C. W. (1991). Inter marriage: Effects on personality, adjustment, and intergroup relations in two samples of students. *Journal of Marriage and the Family*, 241-250.