

Policies for increasing school completion rates for the poor



Yui Nakamura

Faculty of Economics, Fukuoka University, Japan.

Email: nakamuray@fukuoka-u.ac.jp



ABSTRACT

Article History

Received: 14 June 2023

Revised: 24 July 2023

Accepted: 7 August 2023

Published: 1 September 2023

Keywords

Discount rate
Education policy
Learning environment
Learning hour
Poverty alleviation
School completion rate.

Human capital accumulated through education is a key factor in increasing individual income. Therefore, policies that aid in increasing school enrollment and completion rates among the poor are essential for poverty alleviation. Despite the fact that primary school enrollment rates in developing countries have increased, there remains a significant gap in school completion rates. This study focuses on the decisions individuals make regarding completing their education to obtain future job-related skills. We clarify factors that increase school enrollment and completion rates and indicate the effectiveness and priority of policies to increase the rates through a simple model. Our findings suggest that school policies have limited impact on increasing school enrollment and completion rates, particularly among the poor, who tend to have a high discount rate for the future and focus on the current situation. Therefore, policies that aim to reduce their discount rate should be prioritized. Moreover, we found that extending learning hours at school has a negative impact on the school completion rates of students from poor families. Therefore, policies aimed at improving individual learning environments are effective in increasing rates, especially for the poor. These findings have important implications for policymakers and education practitioners seeking to improve education outcomes and alleviate poverty, especially in developing countries.

Contribution/ Originality: Our originality lies in analyzing the impacts of education policies on school completion rates for both rich and poor backgrounds separately. We then suggest priority policies to increase the rates, as they play a crucial role in poverty alleviation, particularly in developing countries.

1. INTRODUCTION

Promoting universal primary education has been shown to be a successful technique for reducing poverty. Education aids individuals in accumulating human capital, which is directly reflected in their earning potential in the labor market. The 2015 Millennium Development Goals Report by the [United Nations \(2015\)](#) highlights that the primary school net enrollment rate in developing regions had risen to 91% in 2015, a notable increase from 83% in 2000, with a significant increase observed in Sub-Saharan Africa.

While governments' attempts to increase enrollment rates in primary schools have been effective, it is important to focus on school completion rates to increase individual human capital and alleviate poverty. Studies by [UNICEF \(2021a\)](#) show that the worldwide primary school completion rate was 82 percent in 2017, with low completion rates in least developed countries such as Chad (27%), Guinea-Bissau (27%), and South Sudan (25%). The total completion

rate in the least developed countries was 59 percent. The completion rates in Africa were also low, with rates of 61 percent, 62 percent, and 62 percent in West and Central Africa, Eastern and Southern Africa, and Sub-Saharan Africa, respectively, and all lower than the world average. Moreover, this tendency is significantly higher in poor countries.

The discrepancy between enrollment rates and completion rates suggests that some students are unable to continue their studies and drop out in the middle of primary school. The [Development Committee \(2002\)](#) mentions that there is a substantial difference between enrollment rates and completion rates, as does [UNESCO \(2001\)](#). The [World Bank \(2012\)](#) emphasize the importance of completion rates as an appropriate criterion for evaluating education goals.

The objective of this study is to enhance understanding of the determinants impacting school completion rates through an analysis of individuals' choices to enroll in and successfully complete their education with the intention of acquiring skills necessary for future endeavors. We also consider which policies are effective in influencing these factors and should be prioritized for poverty alleviation through education systems.

In the following section, we present a simple model that shows whether individuals choose to receive and complete education under varied circumstances. In Section 3, we analyze the effects of policies on school enrollment rates for the poor. In Section 4, we clarify the factors that increase school completion rates, and in Section 5, we discuss the implications of policies on school completion rates and suggest which policies should be prioritized for poverty alleviation. The concluding remarks are presented in the last section.

2. MODEL

Let us compare the utility of three cases in which individuals make choices regarding their primary education and its completion through a simple model. We assume that individuals have worked for two periods.¹ In the first period, individuals are given the option to receive and complete education while concurrently working. In the second period, some of those who received and completed education in the first period can acquire job-related skills.²

On the contrary, the remaining individuals who received and completed education in the first period, as well as those who chose not to receive education, or did not complete it in the first period, do not acquire any skills.³

After completing education in the first period, an individual may acquire the skills with a possibility p , where $0 \leq p \leq 1$ is satisfied. The notation p is positively correlated with individual capability, longer individual learning hours, l_i^e , and improved individual learning environments E_i , such as the availability of sufficient school supplies or parental involvement in their children's education. We assume that the first and the second derivatives of p with respect to l_i^e and E_i are $p'(l_i^e) > 0$, $p''(l_i^e) < 0$, $p'(E_i) > 0$, and $p''(E_i) < 0$, respectively. When an individual fails to complete the minimum required learning hours, \bar{l}^e , $p=0$ is satisfied.

Based on this assumption, individuals face three choices. First, they may choose not to receive education in the first period and engage in work. Second, they may opt to receive education while working in the first period, even if their learning hours do not meet the minimum required for skill acquisition. Third, they may decide to receive and complete education in the first period to increase their chance of acquiring the skills.

¹ [UNICEF \(2021b\)](#) reports that the number of child laborers increased to 160 million, with 9 million children beginning work due to COVID-19 pandemic risks. We also note that some children assist their parents with work such as harvesting or tending stores, while others may care for their siblings or perform household chores so that their parents can work and earn additional income for the family. Therefore, increased family incomes provide each family member with monetary compensation or in-kind items, such as food, clothing, and school supplies. For simplicity, we assume that children engage in work when they are not attending school for two periods.

² We assume that schools require a minimum number of learning hours for comprehension of subject matter and skill acquisition. Individuals who fulfill the required minimum learning hours at school can complete their education.

³ We assume that not all individuals who receive education can obtain job-related skills. The acquisition of the skills depends on various factors, such as individual capability, learning environments, and the number of learning hours dedicated to education.

All individuals are unskilled in the first period, whereas they are categorized into two groups in the second period: U and S. U represents unskilled people, while S corresponds to skilled individuals. The individual utility function comprises the person's income and the disutility associated with labor and learning hours, as follows:

$$U_i = w_i l_i^w - h(l_i^w + l_i^e) + \delta(w_i l_i^w - h(l_i^w + l_i^e)), \quad (1)$$

Where w_i , l_i^w , and δ represent the wage of individual i , the labor hour of individual i , and the discount present value, respectively. Unskilled and skilled individuals receive wages denoted as w_u and w_s , respectively, with $w_u < w_s$. The function h represents the increasing and convex disutility of labor and learning hours. The derivative of the utility function, denoted as Equation 1, is given as:

$$\frac{\partial U}{\partial l_i} = (1 + \delta)(w_i - h'(l_i^w + l_i^e)) = 0. \quad (2)$$

Equation 2 introduces the sum of individual optimal labor and learning hours, denoted as l_i^* . We assume that $U_u < U_s$ is always satisfied when individuals work their optimal labor hours. In the case where individuals choose not to receive education, their utility function can be written as:

$$U_1 = (1 + \delta)(w_u l_u^* - h(l_u^*)). \quad (3)$$

Next, we examine a case where individuals choose to receive education despite engaging in work in the first period. Their learning hour becomes \tilde{l}_u^e , which is less than the minimum required learning hours to acquire skill, \bar{l}^e . Consequently, their utility function can be represented as:

$$U_2 = w_u(l_u^* - \tilde{l}_u^e) - h(l_u^*) + \delta(w_u l_u^* - h(l_u^*)), \quad (4)$$

Where $\tilde{l}_u^e < \bar{l}^e$ is satisfied.

Third, we consider a case where individuals choose to receive education despite engaging in working in the first period and their learning hour, \hat{l}_u^e , is the same as \bar{l}^e or becomes more than the minimum required learning hours to acquire skill. In this case, $\bar{l}^e \leq \hat{l}_u^e \leq l_u^*$ is satisfied, and individual utility function is formed as:

$$U_3 = w_u(l_u^* - \hat{l}_u^e) - h(l_u^*) + \delta(p(w_s l_s^* - h(l_s^*)) + (1 - p)(w_u l_u^* - h(l_u^*))). \quad (5)$$

Equation 3 and 4 show that $U_2 < U_1$ is always satisfied. Furthermore, given the strong time preference among the poor, their δ tends to be smaller than that of the rich. As a result, $U_3 < U_1$ is often satisfied.⁴ Therefore, the poor tend not to receive education.

3. THE POLICY AIMED AT INCREASING SCHOOL ENROLLMENT RATES

In recent decades, various policies have been implemented to increase school enrollment rates. Bursztyn and Coffman (2012) show that conditional cash transfer programs, which require recipients' regular attendance at school, are rapidly introduced in developing countries, and over 30 countries have implemented the programs. One such program is Progresa, which was introduced in Mexico in 1997 and has been called Oportunidades since 2002. Studies have shown that Progresa/Oportunidades has had a positive impact on students' attendance at school (Behrman, Sengupta, & Todd, 2005; Bobonis & Finan, 2009; Dubois, De Janvry, & Sadoulet, 2012; Lalive & Cattaneo, 2009; Schultz, 2004).⁵

Moreover, Garg and Mandal (2013) indicate that the provision of mid-day meals in classes has had positive impacts on the enrollment of children in primary education. Cheung and Berlin (2015) also show that the food-for-education programs have increased school enrollment in Cambodia. Therefore, both conditional cash and in-kind

⁴ Lawrance (1991) clarifies a negative correlation between an individual's time preference and their income or level of educational achievement. Similarly, Hausman (1979) and Harrison, Lau, and Williams (2002) show that the poor tend to have higher discount rates for the future. Therefore, poverty often serves as a deterrent for individuals to receive education.

⁵ It should also be noted that Progresa which was implemented in Mexico, had a positive impact on the health of children (Behrman & Hoddinott, 2005; Fernald & Gunnar, 2009; Gertler, 2004; Rivera, Sotres-Alvarez, Habicht, Shamah, & Villalpando, 2004).

transfers, such as school lunches and health checkups, provided at school can be effective in increasing school enrollment.

We assume that individuals can receive either cash or in-kind transfers, denoted as A , in exchange for school attendance. In this case, Equations 4 and 5 can be rewritten as follows.

$$U_2 = w_u(l_u^* - \tilde{l}_u^e) - h(l_u^*) + A + \delta(w_u l_u^* - h(l_u^*)), \quad (6)$$

$$U_3 = w_u(l_u^* - \hat{l}_u^e) - h(l_u^*) + A + \delta(p(w_s l_s^* - h(l_s^*)) + (1-p)(w_u l_u^* - h(l_u^*))). \quad (7)$$

Equation 3 and 6 introduce the following equation.

$$U_1 - U_2 = w_u \tilde{l}_u^e - A. \quad (8)$$

As a result, the minimum level of cash and in-kind transfers required to induce individuals to choose education and raise school enrollment rates is $w_u \tilde{l}_u^e$.

4. FACTORS AFFECTING SCHOOL COMPLETION RATES

In this section, we examine several parameters that increase school completion rates. The difference between U_2 and U_3 can be derived from Equations 6 and 7 as follows:

$$U_2 - U_3 = w_u(\hat{l}_u^e - \tilde{l}_u^e) - \delta p((w_s l_s^* - h(l_s^*)) - (w_u l_u^* - h(l_u^*))). \quad (9)$$

Therefore, $U_3 < U_2$ is satisfied, and school completion rates do not improve when the individual discount rate in the second period is high and the discount present value, δ , becomes small as follows:

$$\delta < \frac{w_u(\hat{l}_u^e - \tilde{l}_u^e)}{p((w_s l_s^* - h(l_s^*)) - (w_u l_u^* - h(l_u^*)))}. \quad (10)$$

Equation 9 clarifies that school completion rates increase when the values of p and δ increase and the wage gap between w_u and w_s widens. Regarding learning hours, the small difference between \hat{l}_u^e and \tilde{l}_u^e lets individuals complete their education. Since $\bar{l}^e \leq \hat{l}_u^e$ is satisfied, short learning hours in school to obtain high skills result in the small difference between \hat{l}_u^e and \tilde{l}_u^e . However, whether or not the length of \bar{l}^e increases, the value of U_3 depends on the value of δ because p is the increasing function of individual learning hours.⁶

Based on this analysis, we obtain the following two propositions.

Proposition 1

Extended learning hours at school can be effective in increasing completion rates for children from rich families, whereas they become an obstacle for children from poor families to complete their education.

Proof. While increased learning hours in U_3 decrease individual income in the first period, they increase the value of p in the second period. However, due to the high discount rate of individuals from poor families, their discount present value in the second period is low. Therefore, they prioritize their utility in the first period and potentially minimize their learning hours. In contrast, individuals from rich families have a high discount present value in the second period. They prioritize the benefits of education and increase their learning hours to improve the value of p .

⁶ Changes in school learning hours have been observed in various countries. For instance, in Japan, the government attempted to reduce classroom teaching hours between 1980 and 2010. The policy aimed to foster children's curiosity and enable them to identify and solve problems independently instead of merely learning what the government had prescribed. However, during this period, students' academic performance declined, and they did not develop adequate problem-solving skills. Consequently, the government abandoned the policy and increased learning hours after 2011.

In a similar vein, the Sharjah government in the UAE has provided the option of changing learning hours in schools by reducing the number of school days from five to four since 2022. In a similar vein, the Sharjah government has provided the option of changing learning hours in schools by reducing the number of school days from five to four since 2022.

Proposition 2

Many education policies aimed at increasing school enrollment and completion rates or improving academic performance may not be effective for individuals from poor families.

Proof. Individuals with a high discount rate tend to focus on the present and are not patient enough to wait for the future benefits of education. Therefore, governments should prioritize policies aimed at reducing the discount rate for the second period to improve school completion rates.

5. THE POLICY AIMED AT INCREASING SCHOOL COMPLETION RATES

5.1. The Policy Aimed at Reducing Discount Rates

As shown in Proposition 2, education policies alone do not effectively increase school enrollment and completion rates, especially for the poor. Thus, it is necessary to prioritize policies that decrease an individual discount rate and increase a discount present value for the future.

Ifcher and Zarghamee (2011) indicate that happiness reduces individuals' time preference for money. Therefore, providing cash and in-kind transfers such as school lunches or health checkups at school can not only increase school enrollment rates but also reduce individuals' discount rates. Satisfaction with current circumstances allows individuals to consider future matters. Ganguly and Tasoff (2017) suggest that individuals tend to seek information about the future when they expect positive outcomes. This means that children's and their parents' discount rates for the future decrease when they have ample opportunities to imagine the difference in wages between unskilled and skilled labor and the potential increase in earnings resulting from acquiring skills through education. Easy access to this information encourages individuals to consider future benefits and reduces their discount rates for the future.

5.2. The Policy Aimed at Increasing the Possibility of Acquiring Skills

Increasing the value of the possibility to obtain skills, denoted as p , can enhance school completion rates under a high discount present value in the second period. The value of p is an increasing function of learning hours, l_i^e , and the individual learning environment, E_i . Proposition 1 indicates that increased learning hours at school are effective for children from rich families, whereas they are not effective for children from poor families. Therefore, it is crucial to improve learning environments to enhance the value of p . Various approaches can increase the efficiency of learners.

Numerous studies have emphasized the positive impact of smaller class sizes on students' academic performance (Biddle & Berliner, 2002; Bohrnstedt & Stecher, 1999; Dynarski, Hyman, & Schanzenbach, 2013; Finn & Achilles, 1990; Glass & Smith, 1980; Grissmer, 1999; Hruz, 2000; Krueger, 2003; Nakamura & Dev, 2022; Shin, 2012; Zyngier, 2014). Increasing opportunities for parental involvement can also be effective in improving individual learning environments and students' academic performance (Blair, 2014; Gunderson et al., 2013; Henderson & Mapp, 2002; Hill & Craft, 2003; Hill & Tyson, 2009; Sankaran, Sorrentino, & Hernandez, 2020; Steinberg, Lamborn, Dornbusch, & Darling, 1992).⁷

Assignments should be personalized based on individual learning speeds. Moreover, not only school libraries but also public libraries should be available to provide quiet spaces for children to complete assignments or read books after school.⁸

6. CONCLUSION

This study investigates the determinants of individual decisions to pursue educational attainment by comparing the utility derived from various scenarios. It acknowledges the significance of school completion rates in acquiring

⁷ For instance, the Lincoln School in Brookline, MA, provides child care services at school for children in Pre-K through 4th grade when the parents' meeting is held at school.

⁸ Teachers for the first graders assign different-level books to each child based on their reading skills at the Lincoln School in Brookline, MA.

employable skills and mitigating poverty, in addition to considering school enrollment rates. This study aims to examine the various factors that influence students' decision-making processes and propose potential policy interventions that could enhance both school enrollment and completion rates. The ultimate goal of these interventions is to mitigate the prevalence of poverty within the affected communities.

The results of our study suggest that the influence of school policies on enhancing school enrollment and completion rates is constrained, particularly among economically disadvantaged individuals who exhibit a pronounced tendency to prioritize immediate circumstances and exhibit a high discount rate for future benefits. Hence, it is imperative to prioritize policies that aim to decrease their discount rate.

Furthermore, our study shows that changing learning hours at school has both positive and negative impacts on school completion rates. Therefore, policies aimed at improving the efficiency of student learning are more important than extending the length of learning hours. These findings have important implications for policymakers and education practitioners seeking to improve education outcomes and alleviate poverty, especially in developing countries.

Funding: This study received no specific financial support.

Institutional Review Board Statement: Not applicable.

Transparency: The author states that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

Competing Interests: The author declares that there are no conflicts of interests regarding the publication of this paper.

REFERENCES

- Behrman, J. R., & Hoddinott, J. (2005). Programme evaluation with unobserved heterogeneity and selective implementation: The Mexican PROGRESA impact on child nutrition. *Oxford Bulletin of Economics and Statistics*, 67(4), 547-569. <https://doi.org/10.1111/j.1468-0084.2005.00131.x>
- Behrman, J. R., Sengupta, P., & Todd, P. (2005). Progressing through PROGRESA: An impact assessment of a school subsidy experiment in rural Mexico. *Economic Development and Cultural Change*, 54(1), 237-275. <https://doi.org/10.1086/431263>
- Biddle, B. J., & Berliner, D. C. (2002). Small class size and it's effects. *Educational Leadership*, 59(5), 12-23.
- Blair, S. L. (2014). Parental involvement and children's educational performance: A comparison of Filipino and US parents. *Journal of Comparative Family Studies*, 45(3), 351-366. <https://doi.org/10.3138/jcfs.45.3.351>
- Bobonis, G. J., & Finan, F. (2009). Neighborhood peer effects in secondary school enrollment decisions. *The Review of Economics and Statistics*, 91(4), 695-716. <https://doi.org/10.1162/rest.91.4.695>
- Bohrnstedt, G. W., & Stecher, B. M. (1999). *Class size reduction in California: Early evaluation findings, 1996-98*. Palo Alto, CA: American Institutes for Research.
- Bursztyjn, L., & Coffman, L. C. (2012). The schooling decision: Family preferences, intergenerational conflict, and moral hazard in the Brazilian favelas. *Journal of Political Economy*, 120(3), 359-397. <https://doi.org/10.1086/666746>
- Cheung, M., & Berlin, M. P. (2015). The impact of a food for education program on schooling in Cambodia. *Asia & the Pacific Policy Studies*, 2(1), 44-57. <https://doi.org/10.1002/app5.21>
- Development Committee. (2002). *Education for dynamic economies: Action plan to accelerate progress towards education for all*. Washington, DC: World Bank.
- Dubois, P., De Janvry, A., & Sadoulet, E. (2012). Effects on school enrollment and performance of a conditional cash transfer program in Mexico. *Journal of Labor Economics*, 30(3), 555-589. <https://doi.org/10.1086/664928>
- Dynarski, S., Hyman, J., & Schanzenbach, D. W. (2013). Experimental evidence on the effect of childhood investments on postsecondary attainment and degree completion. *Journal of Policy Analysis and Management*, 32(4), 692-717. <https://doi.org/10.1002/pam.21715>

- Fernald, L. C., & Gunnar, M. R. (2009). Poverty-alleviation program participation and salivary cortisol in very low-income children. *Social Science & Medicine*, 68(12), 2180-2189. <https://doi.org/10.1016/j.socscimed.2009.03.032>
- Finn, J. D., & Achilles, C. M. (1990). Answers and questions about class size: A statewide experiment. *American Educational Research Journal*, 27(3), 557-577. <https://doi.org/10.3102/00028312027003557>
- Ganguly, A., & Tasoff, J. (2017). Fantasy and dread: The demand for information and the consumption utility of the future. *Management Science*, 63(12), 4037-4060. <https://doi.org/10.1287/mnsc.2016.2550>
- Garg, M., & Mandal, K. S. (2013). Mid-day meal for the poor, privatised education for the non-poor. *Economic and Political Weekly*, 48(30), 155-163.
- Gertler, P. (2004). Do conditional cash transfers improve child health? Evidence from PROGRESA' s control randomized experiment. *American Economic Review*, 94(2), 336-341. <https://doi.org/10.1257/0002828041302109>
- Glass, G. V., & Smith, M. L. (1980). Meta-analysis of research on class size and its relationship to attitudes and instruction. *American Educational Research Journal*, 17(4), 419-433. <https://doi.org/10.3102/00028312017004419>
- Grissmer, D. (1999). Conclusion: Class size effects: Assessing the evidence, its policy implications, and future research agenda. *Educational Evaluation and Policy Analysis*, 21(2), 231-248. <https://doi.org/10.3102/01623737021002231>
- Gunderson, E. A., Gripshover, S. J., Romero, C., Dweck, C. S., Goldin-Meadow, S., & Levine, S. C. (2013). Parent praise to 1-to 3-year-olds predicts children's motivational frameworks 5 years later. *Child Development*, 84(5), 1526-1541. <https://doi.org/10.1111/cdev.12064>
- Harrison, G. W., Lau, M. I., & Williams, M. B. (2002). Estimating individual discount rates in Denmark: A field experiment. *American Economic Review*, 92(5), 1606-1617. <https://doi.org/10.1257/000282802762024674>
- Hausman, J. A. (1979). Individual discount rates and the purchase and utilization of energy-using durables. *The Bell Journal of Economics*, 10(1), 33-54. <https://doi.org/10.2307/3003318>
- Henderson, A. T., & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Astin, TX: Southwest Educational Development Laboratory.
- Hill, N. E., & Craft, S. A. (2003). Parent-school involvement and school performance: Mediated pathways among socioeconomically comparable African American and Euro-American families. *Journal of Educational Psychology*, 95(1), 74. <https://doi.org/10.1037/0022-0663.95.1.74>
- Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: A meta-analytic assessment of the strategies that promote achievement. *Developmental Psychology*, 45(3), 740. <https://doi.org/10.1037/a0015362>
- Hruz, T. (2000). *The costs and benefits of smaller classes in Wisconsin: A further evaluation of the SAGE program*. Milwaukee: WI: Policy Research Institute.
- Ifcher, J., & Zarghamee, H. (2011). Happiness and time preference: The effect of positive affect in a random-assignment experiment. *American Economic Review*, 101(7), 3109-3129. <https://doi.org/10.1257/aer.101.7.3109>
- Krueger, A. B. (2003). Economic considerations and class size. *The Economic Journal*, 113(485), F34-F63. <https://doi.org/10.1111/1468-0297.00098>
- Lalive, R., & Cattaneo, M. A. (2009). Social interactions and schooling decisions. *The Review of Economics and Statistics*, 91(3), 457-477. <https://doi.org/10.1162/rest.91.3.457>
- Lawrance, E. C. (1991). Poverty and the rate of time preference: Evidence from panel data. *Journal of Political Economy*, 99(1), 54-77. <https://doi.org/10.1086/261740>
- Nakamura, Y., & Dev, S. (2022). Effects of class-size reduction on students' performance. *Pertanika Journal of Social Sciences & Humanities*, 30(2), 797-812. <https://doi.org/10.47836/pjssh.30.2.20>
- Rivera, J. A., Sotres-Alvarez, D., Habicht, J.-P., Shamah, T., & Villalpando, S. (2004). Impact of the Mexican program for education, health, and nutrition (Progresa) on rates of growth and anemia in infants and young children: A randomized effectiveness study. *Jama*, 291(21), 2563-2570. <https://doi.org/10.1001/jama.291.21.2563>
- Sankaran, C., Sorrentino, O., & Hernandez, E. (2020). *I'll See You in school"; A multiple proxy analysis of the role of parental involvement in k-12 education and improves students outcomes*. Retrieved from Boston College Working Paper BC EC WP No. 1016:

- Schultz, T. P. (2004). School subsidies for the poor: Evaluating the Mexican Progresa poverty program. *Journal of development Economics*, 74(1), 199-250. <https://doi.org/10.1016/j.jdeveco.2003.12.009>
- Shin, Y. (2012). Do black children benefit more from small classes? Multivariate instrumental variable estimators with ignorable missing data. *Journal of Educational and Behavioral Statistics*, 37(4), 543-574. <https://doi.org/10.3102/1076998611431083>
- Steinberg, L., Lamborn, S. D., Dornbusch, S. M., & Darling, N. (1992). Impact of parenting practices on adolescent achievement: Authoritative parenting, school involvement, and encouragement to succeed. *Child Development*, 63(5), 1266-1281. <https://doi.org/10.2307/1131532>
- UNESCO. (2001). *Monitoring report on education for all*. Paris: UNESCO.
- UNICEF. (2021a). *UNICEF data: Monitoring the situation of children and women*. Retrieved from <https://data.unicef.org/topic/education/primary-education/>
- UNICEF. (2021b). *UNICEF data: Child labour rises to 160 million - first increase in two decades*. Retrieved from <https://www.unicef.org/press-releases/child-labour-rises-160-million-first-increase-two-decades>
- United Nations. (2015). *The millennium development goals report 2015*. Working Papers id: 7222, eSocialSciences.
- World Bank. (2012). *Global monitoring report 2012: Food prices, nutrition, and the millennium development goals*. Washington DC: World Bank.
- Zyngier, D. (2014). Class size and academic results, with a focus on children from culturally, linguistically and economically disenfranchised communities. *Evidence Base: A Journal of Evidence Reviews in Key Policy Areas*, 1, 1-24. <https://doi.org/10.21307/eb-2014-001>

Views and opinions expressed in this article are the views and opinions of the author(s), International Journal of Asian Social Science shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.