



## **A Commitment to the Universal Coverage of Early Childhood Development (ECD) Programs**

A society achieves the highest returns on its economic development and social wellbeing by investing in Early Childhood Development (ECD) programs which promote good nutrition, access to health care, intellectual stimulation, and a safe environment for the children up to the age of six. ECD investments last a lifetime. A young child who is benefited by ECD programs is more likely to perform better in school and the labor market, and enjoy better health than a child who is deprived of these basic needs.

We, therefore, urge all of the leaders of the Americas to look after their countries' future economic and social wellbeing by ensuring universal coverage of ECD programs, drawing on the best science and experience in the design of these programs. We stand committed to working with all governments and civil society in the region to achieve the universal coverage of high-quality ECD programs no later than 2020.

Specifically, we propose that each national government undertake the following actions:

1. The creation of a National Council on Early Childhood Development under the direction of the Head of State to coordinate the national effort towards universal ECD coverage. This council will draw on ministries responsible for health, nutrition, social development, finance, family welfare, and pre-school education. A senior government official will be appointed to coordinate the ECD effort.
2. A step-by-step increase in the national budget to ensure universal access to a comprehensive ECD program no later than 2020.
3. Participation of the each country in the Secretariat of Early Childhood Development for Latin America and the Caribbean hosted by the Earth Institute at Columbia University and ALAS in partnership with many international agencies. The Secretariat will promote the adoption of “high-quality ECD programs based on global experiences and up-to-date science.”
4. An educational campaign for families, caregivers, and communities to inform the public about the best practices for home-based and community-based ECD efforts. This campaign will be supported by public figures from the arts, academia, the sciences, business, and politics.
5. Special support given to mothers, teachers, and other caregivers, to support their crucial role in Early Childhood Development.

The benefits of this scaled-up ECD effort will be rewarded in countless ways of profound benefit to the society. These benefits include:

1. The promotion of economic growth, by achieving the highest possible returns through investing in human capital. The rise in overall quality of life, by promoting not only higher adult incomes, but also improved school performance and improved adult health conditions.
2. The promotion of peace within the community and the nation. ECD fosters a long-term reduction of marginality, violence and insecurity.
3. The promotion of social equality. ECD fosters intergenerational mobility, helping to ensure that children born into relative poverty have the chance to achieve their full economic, social, and physical potential.
4. Reduction of political instability. ECD programs motivate the social inclusion of individuals and provide them adequate education to participate actively in civic life, contributing to reduce political imbalances and strengthen democratic stability.

## **Introduction**

Early childhood development policies (ECD) are the best form of public investment for developing countries. These policies encourage equal opportunities from birth, while making social mobility viable in the long term. ECD programs are part of a set of comprehensive economic and social policies formulated with the aim of ensuring economic development. By themselves, ECD policies are not effective in achieving sustained economic growth.

ECD policies place an emphasis where it matters most: children. Interventions, which improve health and educational outcomes, are more effective when they are invested in the early years in comparison to the later years of life. Investing in early childhood has an extremely high rate of return as these investments are long lasting and the effects workforce and economic stability are permanent. First, as ECD programs contribute to economic growth, the highest possible returns through investment in human capital are achieved. In addition, an investment in early childhood development enhances the quality of life in general, fostering not only increased incomes for adults but also school performance and improves health conditions for all. Secondly, the existence of effective ECD programs also promotes long-term reduction of marginality, violence and insecurity. Thirdly, child development programs promote social equality, ensuring that children born in relative poverty have the opportunity to reach their potential physical, economic and social development. Finally, child development programs help to reduce political instability, fostering the social inclusion of individuals and provide adequate

There is no social policy capable of repairing the damage a poor macroeconomic policy does. Therefore, governments should not neglect their efforts to foster sustainable growth based on sound economic policies, especially fiscal and monetary policies. There is a need to observe the budget constraint and, therefore, set spending priorities. Falling into fiscal deficits financed with inflation or unsustainable debt must be avoided because those who suffer most from poor macro policies are indeed, those who have the least.

Latin America is the region with the greatest inequality when it comes to income distribution. While there are currently no ethnic or religious conflict widespread in the region, its territory has historically been characterized by marked social and political instability, products of that inequality. If Latin American presidents get at the forefront of this effort to address the problems engendered by poverty at an early stage of development of their citizens with policies that have shown significant social return, they will be showing political and institutional maturity unprecedented in the region.

## Explaining the Benefits

1. *The promotion of economic growth, which achieves the highest possible returns through investing in human capital. The rise in overall quality of life, by promoting not only higher adult incomes, but also improved school performance and improved adult health conditions.*

The contribution of Early Childhood Development (ECD) programs to economic growth and, therefore, a higher achievement in levels of income per capita is especially related to the role of education on the accumulation of human capital. In particular, the link between ECD and the level of income operates through two stylized relationships:

- The pre-primary education increases the probability of entering first grade, enhances learning, reduces repetition and dropout and thus increases the proportion of young people completing their studies.
- Human capital attained through education is an important determinant of economic progress.

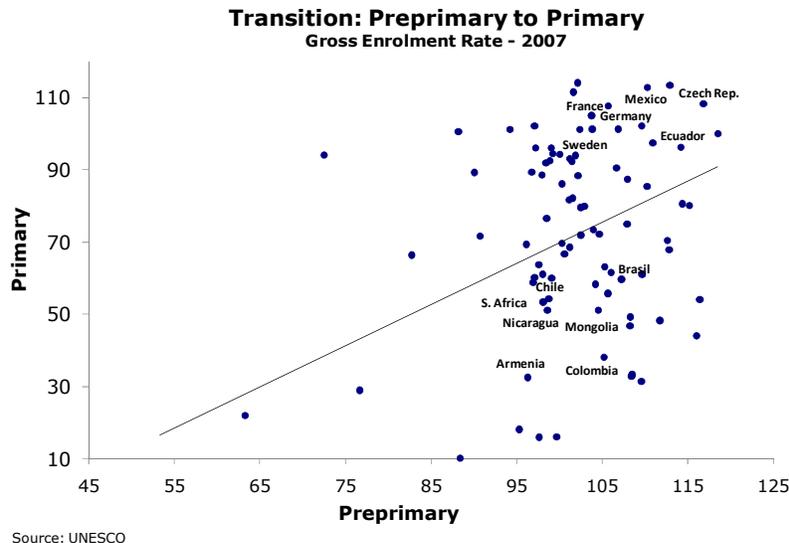
Regarding the first point, Berlinsky, Galiani and Gertler<sup>1</sup> present evidence that shows that investing in pre-primary education could play an important role in improving the quality of education. They find a strong positive effect of pre-primary education on primary school performance in Argentina. They estimate that one year of preprimary school increases average third grade test scores by 8% of a mean or by 23% of the standard deviation of the distribution of test scores. They also find that preprimary school attendance positively affects student's self-control in the third grade as measured by behaviors such as attention, effort, class participation, and discipline.

Preliminary evidence shows that the relation between pre-primary and primary is important. Taking a pool of 93 countries from all over the world, there is a direct causality from preprimary to primary enrolment<sup>2</sup>, as it is shown in the graph below. However, it should be noted that this empirical relationship is weak ( $R^2=0.17$ ).

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<sup>1</sup> Berlinski, Galiani and Paul Gertler (2006). The Effect of Pre-Primary Education on Primary School Performance. William Davidson Institute Working Paper No. 838.

<sup>2</sup> Gross enrollment rate to pre-primary (primary) is the number of pupils enrolled in pre-primary (primary) regardless of age, expressed as a percentage of the population in the theoretical age group for pre-primary (primary) education.



In relation to the second point, more years of education translates into higher income levels for the individuals and for the economy as a whole. A greater amount of educational attainment indicates more skilled and more productive workers, who in turn increase an economy's output of goods and services. An abundance of well-educated human resources also helps to facilitate the absorption of educational attainment and has a strong impact on social outcomes, such as child mortality, fertility, education of children, and income distribution.

From a microeconomic perspective, and according to Ashenfelter and Krueger<sup>3</sup> and Card<sup>4</sup>, an extra year of schooling increases wages by between 10% and 15%. In the same direction, Heckman and Masterov<sup>5</sup> argue that completing high school raises student's wages by about USD10,372 per year (in 2004 dollars), whereas the direct cost of completing one year of secondary school is approximately USD8,000 per student (in 2004 dollars).

In country level studies, the returns are even higher. According to Heckman and Masterov, high school graduation confers an extra benefit of 14%-26% beyond private returns captured by the high school graduate wages that are pocketed by graduates. This is an important benefit of education beyond its private return that suggests overall under-investment in the population of disadvantaged children.

Filipe Campante and Edward L. Glaeser<sup>6</sup> find that current schooling differences can explain 98% of the current GDP gap between the U.S. and Argentina. They state that the

<sup>3</sup> Ashenfelter, Orley and Alan Krueger (1994). Estimates of the Economic Return to Schooling from a New Sample of Twins. *American Economic Review* 84(5): 1157-1173.

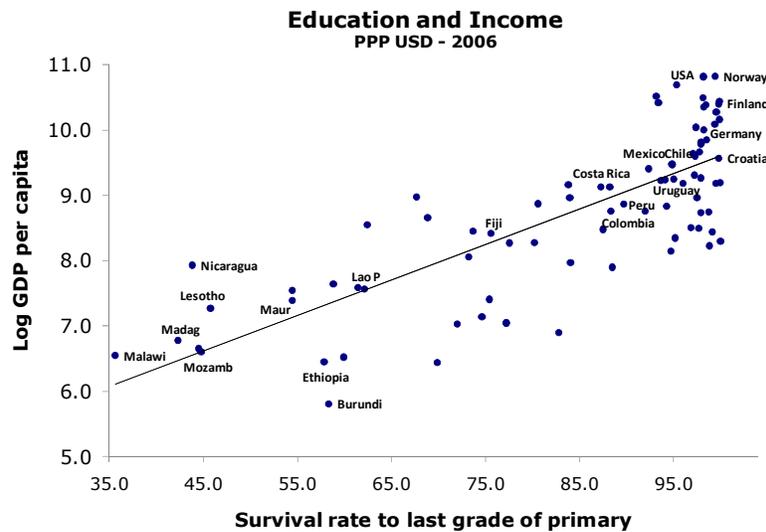
<sup>4</sup> Card, David E. (1999). The Causal Effect of Education on Earnings. *Handbook of Labor Economics III*: 1801-1863.

<sup>5</sup> Heckman, James and Dimitriy V. Masterov (2007). The Productivity Argument for Investing in Young Children.

<sup>6</sup> Campante, Filipe and Edward L. Glaeser (2009). Yet Another Tale of Two Cities: Buenos Aires and Chicago.

gap between individual-level estimates of human capital effects and country-level estimates of human capital effects are explained by different reasons. One view is that the larger coefficients at the national level represent human capital spillovers. Living in a country with more skilled individuals may make everyone more productive, perhaps because skilled workers are responsible for determining the level of technology in a given country. Other explanation (Glaeser, Ponzetto and Shleifer<sup>7</sup>, building on the Lipset<sup>8</sup> hypothesis) suggests that schooling is responsible for political outcomes. In particular, stable democratic institutions tend to be predicated on the level of schooling of the citizenry (for a more extended explanation of this point see benefit 4 below).

This direct causality from education to level of income is shown in the following graph. Considering the survival rate to last grade and the log of GDP per capita for 84 countries, it is found that education explains more than a half of the performance of income ( $R^2=0.59$ )



Source: UNESCO

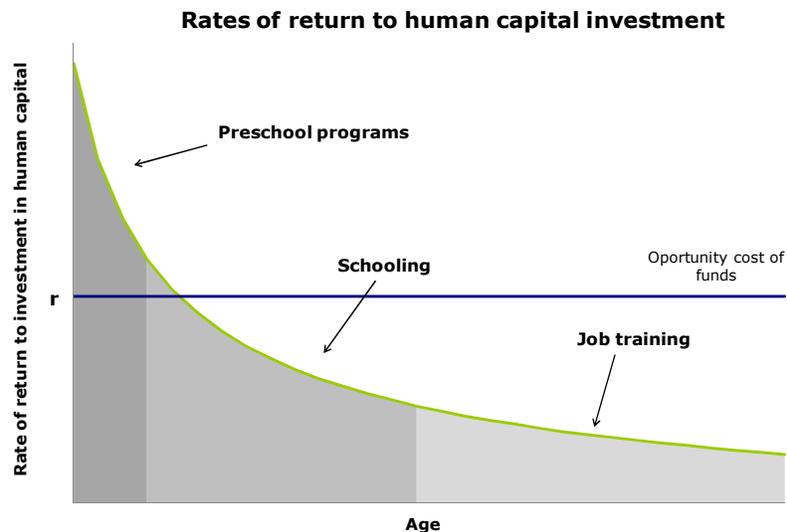
James Heckman and Pedro Carneiro<sup>9</sup> state that *ceteris paribus* the rate of return to a dollar of investment made in human capital while a person is young is higher than the rate of return to the same dollar made at a later age, for two reasons. First of all, early investments are harvested over a longer horizon. Secondly, because early investments raise the productivity (lower the costs) of later investments, human capital is synergic. Learning begets learning, skills (both cognitive and non-cognitive) acquired early on facilitate later learning. For an externally specified opportunity cost fund  $r$  (represented

<sup>7</sup> Glaeser, Ponzetto and Andrei Shleifer (2007). Why Does Democracy Need Education? Journal of Economic Growth 12(2), 77-99.

<sup>8</sup> Lipset, Seymour Martin (1959). Some Social Requisites of Democracy: Economic Development and Political Legitimacy. American Political Science Review 53 (1): 69-105.

<sup>9</sup> Heckman, James and Pedro Carneiro (2003). Human Capital Policy. NBER Working Paper No. 9495.

by the horizontal line with intercept  $r$  in the next figure), an optimal investment strategy is to invest less in the old and more in the young.



From this point of view, efficiency in public spending would be enhanced if human capital investment were directed more towards the young than the old.

The authors also analyze different programs of early childhood investments on children from disadvantaged environments in U.S.A. According to their conclusions, these programs have shown remarkable success which indicates that intervention in the early years can effectively promote learning and can be enriched through external channels. They demonstrate the value of good families by showing that interventions can remedy the failings of bad families. Early childhood interventions of high quality have lasting effects on learning and motivation. They raise achievement and non-cognitive skills.

One of the most complete programs was the Perry Preschool program, which included both children and their parents. Parents improved their education and labor force activity and reduced their participation welfare. Treatment was then discontinued and the participants were followed over their life cycle. According to Heckman and Carneiro, evidence indicates that those enrolled in the program had higher earnings and lower levels of criminal behavior in their late 20<sup>s</sup> in comparison with children randomized out of the program.

Besides the direct benefits perceived by individuals, reported cost-benefits ratios for the program were substantial. Measured through age 27, the program returned USD5.70 for every dollar spent. When returns were projected for the remainder of the lives of program participants, the return on the dollar raised to USD8.70.

Preschool programs have also been successfully applied in Latin America. The Integrated Child Development Project in Bolivia has successfully provided comprehensive child care full time with additional food components and health and education services to malnourished children between 6-72 months in low-income areas. The evaluation of this

program has shown a positive impact on motor skills, psychosocial, and language acquisition. The effects on growth were higher for children under 36 months, but all groups classified by age received benefits in cognitive and psychosocial development. Program effects were greatest for those who participated for more than a year. This program was highly cost-effective, the estimated cost of the program was USD43 per month per child, 40% of which was for food.

Chile has also made advances on this direction. The program *Chile Crece Contigo* is a social protection system designed to serve children and their families from conception to age entering the basic education system. The program provides universal access to services and educational and health benefits through a coordinated network of public services with the ultimate aim of improving the psychological, emotional and physical. However, as it was implemented recently (in 2007), there is still no evidence available of the positive impact of the program.

In summary, the empirical evidence presented earlier shows the importance of investing in ECD. Investment in early childhood has a greater return on human capital than those made at later stages of human life. This occurs not only because early investments are harvested over a longer horizon, but also because they contribute to continue investing in future education, increasing the productivity of later investments. At the end, more years of education become more income levels for the individuals and through this for the economy as a whole.

*2. The promotion of peace within the community and the nation. ECD fosters a long-term reduction of marginality, violence and insecurity.*

An important portion of literature agrees that there is a relationship between social and economic background, marginality and crime. Children raised in an environment of poor economic conditions and surrounded by violence seem to have a greater probability of committing crimes than those who were not exposed to these extreme conditions in their early childhood.

According to James J. Heckman and Dimitriy V. Masterov, substantial evidence shows that children from disadvantaged environments are more likely to commit crime, have out-of-wedlock births and dropout of school. Early interventions that partially remediate the effects of adverse environments can reverse some of the harm of disadvantage and have a high economic return, not only for the children themselves, but also their children, as well as society at large.

The authors argue that family is a major determinant of child participation in crime and social deviance. Early interventions reduce crimes, promote high school graduation and college attendance, reduce grade repetition and special education costs, and help prevent teenage births. Also, cost-benefit analyses of these programs reported in the literature show that they are cost effective. They estimate that rates of return are 16%: 4% for participants and 12% for society at large.

In the same direction, Lochner and Moretti<sup>10</sup> show an inverse relationship between years of schooling and probability of imprisonment. Increasing high school graduation rates is a major crime prevention strategy. Risk factors promoting crime include poor family backgrounds, which also promote high school dropout. Poorly educated teenage mothers in low-income families are much more likely to produce children who participate in crime.

They present convincing non-experimental evidence that increasing educational attainment reduces crime and that the inverse relationship between crime and education is not a correlational artifact arising from unobserved variables that are common to both crime and education. Using Census data from U.S., they show that one more year of schooling reduces the probability of incarceration by 0.37% points for blacks, and 0.1% for whites. This means that 23% of the black-white difference in average incarceration rates can be explained by the differences in education between these groups. Using the FBI's Uniform Crime Reports, they find that the greatest impacts of education are associated with reducing arrests for murder, assault, and motor vehicle theft.

Lochner and Moretti also calculate the social savings from crime reduction associated with completing secondary education. They show that a 1% increase in the high school graduation rate yields USD1.8 billion in social benefits (in 2004 dollars). This increase reduces the number of crimes by more than 94,000 each year. The social benefits include reduced losses in productivity and wages, lower medical costs, and smaller quality-of-life reductions stemming from crime. They also include reductions in costs of incarceration.

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<sup>10</sup> Lochner, Lance J. and Enrico Moretti. The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-reports. *Amer. Econ. Rev.* 94(1)(2004): 155–189.

Looking only at the savings from reduced crime, the return is USD1,638-USD2,967 per year, which shows that expenditure is cost effective.

Likewise, comparing the effect of educational expenditure with the effect of hiring an additional police officer suggests that promoting education may be a better strategy. Levitt<sup>11</sup> claims that an additional sworn police officer in a large U.S. city reduces annual costs from crime by about USD200,000 dollars at a public cost of USD80,000 per year.

In the paper of Heckman and Carneiro about the Perry Program, the authors argue that, according to Schweinhart, Barnes and Weikart<sup>12</sup> a substantial fraction (65%) of the return to the program is attributed to reductions in crime. The successful enriched programs like Perry Preschool foster long-term improvements in the home environment that carry over to the child along after the program has terminated. Yet the evidence from the Perry Preschool Program reveal that these programs are highly effective in reducing criminal activity, promoting social skills and integrating disadvantaged people into the mainstream society.

Another important program developed in U.S. was the Syracuse Preschool program, which provided family development support for disadvantaged children from prenatal care through age five. Reduction in problems with probation and criminal offenses ten years later were as large as 70% among children randomly assigned to the program. Studies of early intervention programs find short-term increases in test scores, less grade retention, and higher high school graduate rates among enrolled children. Of those studies that examine pre-delinquent and criminal behavior, most discover lower rates of deviant behavior among program participants.

Thus, investment in ECD helps to reduce marginality by promoting health and intellectual development of those individuals who were born in an environment of poor economic conditions. In this sense, early interventions contribute to reduce crime and promote social peace, enabling the development of less insecure environments.

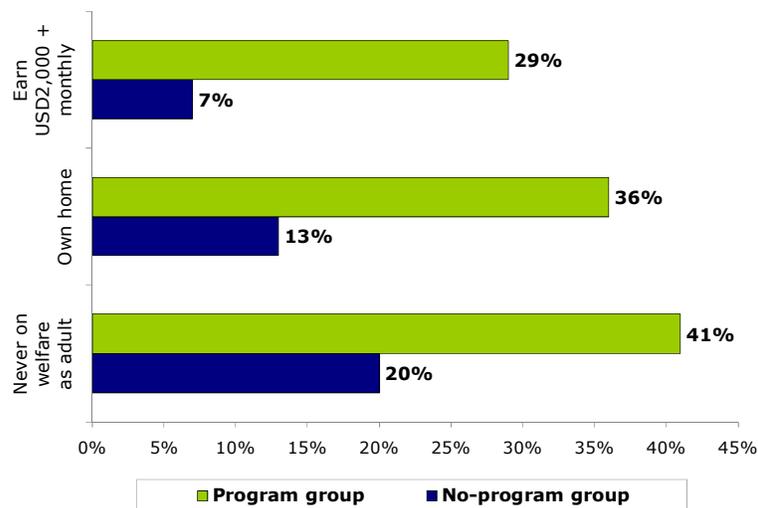
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<sup>11</sup> Levitt, S. Using Electoral Cycles in Police Hiring to Estimate the Effect of Police on Crime. *Amer. Econ. Rev.* 87(3)(1997): 270–290.

<sup>12</sup> Schweinhart, Barnes and D. Weikart (1993). *Significant Benefits: The High/Scope Perry Pre-School Study Through Age 27*. Ypsilanti, MI: High Scope Press.

3. *The promotion of social equality. ECD fosters intergenerational mobility, helping to ensure that children born into relative poverty have the chance to achieve their full economic, social, and physical potential.*

As it was mentioned before, ECD has shown a positive impact on beneficiaries' income. This was shown by Heckman and Masterov (2007), in reference to the Perry Program. Participants were more likely to be employed, to earn more, and they were less dependent on welfare. As it is shown in the graph below, 29% of participants earned as adults USD2,000 or more, compared to a 7% in the no-program group (in other words, for each individual in the no-program group earning 2,000USD or more, there were four individuals in the program group earning that amount).



Source: Heckman and Masterov (2007)

*Ceteris paribus*, the increase in personal income translates into a higher national income. Also, as the rise in income goes to people living in poverty, this generates an improvement in income distribution, and therefore a more fair society. So, while the ECD improves income level for the whole economy, it also contributes to a less unequal society.

From a dynamic perspective, these programs also contribute to social mobility. According to Andersen, Brooks and Mercado<sup>13</sup>, this dynamic determines the incentives for poor people to invest in education. If social mobility is low, poor people are unlikely to make sacrifices as they do not expect the effort to be paid in the future, which creates a vicious circle and reinforces the differences in income distribution. This is reflected in the model presented by Hassler, Mora and Zeira<sup>14</sup> which establishes a two side relationship

<sup>13</sup> Andersen, Brooks and Alejandro F. Mercado (2004). Macroeconomic Policies to Increase Social Mobility and Growth in Bolivia. Institute for Advanced Development Studies Working paper No. 02/2004.

<sup>14</sup>Hassler, Rodríguez Mora and Joseph Zeira (2007). Inequality and Mobility. Institute for International Economic Studies, Stockholm University.

between social mobility and growth: low social mobility reduces incentives for growth and low growth derives in low social mobility.

In this sense, focalized programs which enhance the access to education for disadvantaged children help breaking this vicious circle. The integration of educational policies with nutritional and health aspects enhances the performance of children at school and therefore reinforces the possibility of achieving higher income in the future.

According to Barnett and Belfield<sup>15</sup>, preschool education enhances social mobility by enabling disadvantaged children to achieve as adults greater socioeconomic success than did their parents. Based on the observed effects of preschool, one might expect increased social mobility across various domains. One domain is earnings: if preschool raises incomes most for those in the lowest earning deciles, then it may increase social mobility. The second domain is education, the focus of most research. Preschool does indeed raise achievement.

The authors mention a work of Restuccia and Urrutia<sup>16</sup> who generate a four-period model of parent-child investments to determine social mobility across generations, contingent on increased public spending on elementary and secondary education, and separately, on higher education. This work finds that increased spending on elementary and secondary education raises social mobility. The logic is relatively straightforward. Increased public spending on the early years of schooling (in their specification, the increased spending is used for a universal program of pre-schooling for all children, regardless of family background) eases the burden of borrowing for educational investments for poorer families (although it also motivates some wealthier parents to switch from private to public schools). The children of poorer families will then go on to college, and although they will dropout at relatively high rates, the children who finish will increase the number of college graduates from low-income backgrounds. In the model, intergenerational earnings and education correlations both fall as a result. Assuming an increase in public spending on early education of USD90 billion—sufficient to fund preschool for all children for approximately two years—earnings correlations across generations should fall from 0.40 to 0.36 and education correlations across generations should fall from 0.35 to 0.28.

In summary, early investment promotes greater social mobility, by helping individuals to leave the disadvantaged conditions in which they were born. Also, by increasing the income of the poorest through the accumulation of human capital, the ECD contributes to reduce social inequality.

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<sup>15</sup> Barnett W. Steven and Clive R. Belfield (2007). Early Childhood Development and Social Mobility. MPRA Paper No. 858, posted 07.

<sup>16</sup> Restuccia Diego and Carlos Urrutia. Intergenerational Persistence of Earnings: The Role of Early and College Education. *American Economic Review* 94 (2004): 1354–78.

*4. Reduction of political instability. ECD programs motivate the social inclusion of individuals and provide them adequate education to participate actively in civic life, contributing to reduce political imbalances and strengthen democratic stability.*

In particular, there is a high correlation between education and a stable democracy. This is because schooling teaches people to interact with others and raises the benefits of civic participation, including voting and organizing.

According to Gleaser and Ponzetto, since education raises the benefits of civic engagement, it raises participation in support of a broad-based regime (democracy) relative to that in support of a narrow-based regime (dictatorship). This increases the likelihood of successful democratic revolutions against dictatorships, and reduces that of successful anti-democratic coups.

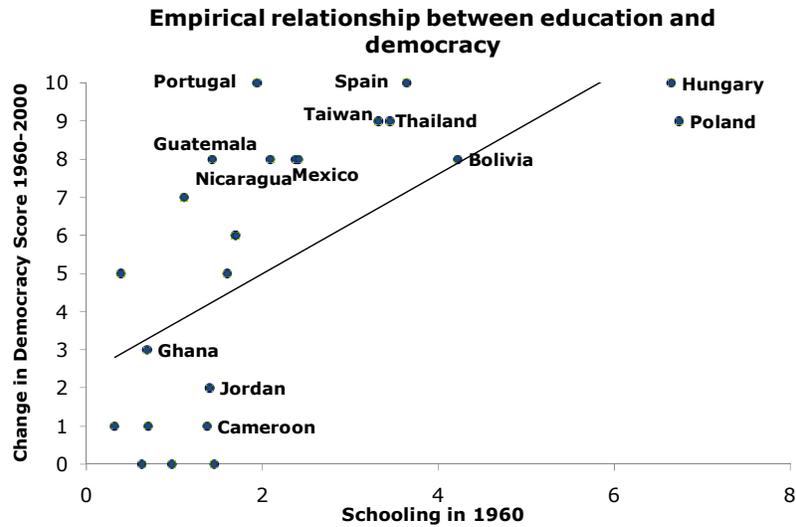
Education raises the benefits of social participation because it facilitates seamless information exchange. Educated people are better able to express what they know, to inform, and to persuade. They are also better able to acquire new information, to understand, and to learn. These procedural benefits capture the fundamental value of education as socialization. At every level from primary school to university, education is the acquisition of skills helpful for operating with both knowledge and people, to be able to learn and to teach.

The authors show evidence across the world of extremely high correlation between education and democracy with the relationship between the change in the Jagers and Marshall<sup>17</sup> democracy score and years of schooling in 1960 (from Barro and Lee<sup>18</sup>) for countries that had low democracy ratings (zero or one) in 1960. This correlation is 66%. They also found causality from education to democracy. Initial schooling, even in highly dictatorial regimes, strongly predicts becoming more democratic over time. In contrast, democracy does not predict growth in schooling.

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<sup>17</sup> Jagers, K., and M. Marshall (2003). Polity IV project. Center for International Development and Conflict Management, University of Maryland.

<sup>18</sup> Barro, Robert J. and Jong Wa-Lee (2000). International Data on Educational Attainment Updates and Implications. NBER Working paper No.7911.



There is also a direct effect caused by the emergence of large middle classes. The education reduces social inequality and by this means promotes the emergence of larger middle classes. The higher the percentage of middle class, the more stable democracy will be. This is not an accident but the consequence of a balance of fairness in social relationships. To the extent that the perception of every citizen evaluates the correspondence of what contributes and get as balanced, their identification with the system becomes more systematic. Uniformity diffuses class sense of fairness, and for this reason middle classes are the most advocate of democratic stability and absence of conflict.

In conclusion, ECD programs reduce political instability in two ways. On the one hand, schooling teaches people to interact with others and raises the benefits of civic participation, including voting and organizing (political commitment). On the other hand, early interventions contribute to the emergence of larger social classes, which promote democratic stability and the absence of conflict.