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A STUDY OF THE SOCIAL INEQUALITY AND ITS EFFECTS ON INDIAN SOCIETY



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ABSTRACT

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Exclusion is a consequence of social inequality. Commonly referred to as "social inequality," this phenomenon describes patterns of uneven access to social resources. It's a varied path to money, power, and status for various people. Inequality may exist in society based on factors such as gender, race, age, ethnicity, religion, and even kinship. Hegemony is a means by which inequality may be maintained over prolonged periods of time. The dominance of culture by one particular cultural group over another results in the exaltation of some cultural ideas, values, and practises at the expense of those of other cultures. This phenomenon is known as hegemony. Marx and Engels claimed that the true foundation of social and political disparity was property, and that because primitive cultures did not have private property, there was no state and no class or inequality in such societies. In communities that are organised according to ranks and strata, inequality has developed into a pervasive and enduring characteristic. The practise of the caste system in India is an example of a social stratification system in which racial or cultural disparities serve as the primary criteria for assigning social position. Membership in a caste is predetermined at birth and is not subject to change; castes have names and are territorially demarcated. Caste is a rigorous system of occupationally specialised, interdependent groups that has remained a key social institution in India. Caste is also known as the social stratification system. The caste system has always been one of the most prominent aspects of Hindu civilizations; yet, Muslim and Sikh groups have also preserved some aspects of the caste system, despite diverging philosophically and practically from Hindu practises and beliefs. The purity

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and contamination traditions that were used to organise political, economic, and ceremonial life are what are employed to rank the various castes.

KEYWORDS: social, inequality, Indian, society.

INTRODUCTION

Alterations in levels of educational attainment have both a positive and a negative impact on the distribution of wealth in India. Alterations in fertility rates are another factor that might contribute to inequality (Pieters, 2009). It is not possible to change or modify the factors that naturally contribute to disparity in terms of age, sex, mental and physical conditions. On the other hand, inequality is not communicated using such phrases. As a result of the process of development, individuals are divided into a variety of classes, and as a result of the stratification that occurs as a result of inequalities in position, power, money, and wealth, inequality is formed at the fundamental level of society. Inequality has been considered a cause of social conflict, as well as tensions that may lead to a reduction in control, a collapse in order and values, which may further lead to a full or partial or temporary or permanent disintegration of society.

CAUSES OF INEQUALITY IN INDIAN SOCIETY

The Brazilian educator Paulo Freire has had a considerable effect on the way that people think about progressive practise. Freire battled vehemently against societal tyranny and injustices throughout his whole life, both in his profession as an organic thinker and philosopher and in his personal life. His book "Pedagogy of the Oppressed" is one of the educational works that is referenced the most frequently today (especially in Latin America, Africa and Asia). Freire was able to draw from and weave together a variety of different schools of thought about the liberatory potential of educational practise. He conceived up and experimented with an educational system as well as an educational philosophy in which the educational focus is on the human capacity for creativity and freedom despite the presence of politico-economic and culturally restrictive frameworks.

INEQUALITY IN INDIA:

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Officially, Indian officials have always been interested with reducing poverty and inequality. This goal has been consistent throughout the country's history. The formulation of economic policy in India, on the other hand, saw a sea of change from the time of the country's first five-year plan following independence in 1947 and the turn of the century. After it gained its independence, India pursued an approach to economic growth that was predicated on central planning over the subsequent roughly forty years. As Chakravarty (1987) pointed out, one of the reasons for adopting an interventionist economic policy was the apprehension that total reliance on the market mechanism would result in excessive consumption by upper-income groups, along

with relative under-investment in sectors essential to the development of the economy. This was one of the reasons why adopting an interventionist economic policy was one of the reasons why adopting an interventionist economic policy was one of the reasons why. According to Chakravarty (1987: 10), the policymakers in India adopted a middle path, in which "there was a tolerance towards income inequality, provided it was not excessive and could be seen to result in a higher rate of growth than would be possible otherwise." This means that "there was a tolerance towards income inequality, provided it was not excessive and could be seen to result in a higher rate of growth than would be possible otherwise." This means that "there was a tolerance towards income inequality, provided it was not excessive and could be seen to result in a higher rate of growth than would be possible otherwise." In this particular context, however, the macroeconomic sensitivity to inflation as a consequence from growth reflected government worries over the redistributive effects of inflation, which often harmed workers, peasants, and unorganised sectors more than other sectors.

INEQUALITY OF OPPORTUNITY IN INDIAN SOCIETY

After this speech is delivered at the stroke of midnight on the very first day of India's independence, it has been seventy years since that moment. During this time period, India went from being a country with widespread poverty to having one of the fastest growing economies on the planet. India has now become the sixth biggest economy in the world, especially since the late nineties, when it began experiencing a high GDP growth rate of more than 7% on a constant basis. Although a substantial amount of work has been completed, and there has been a noticeable increase in the well-being of the country as a whole, there is still a large amount of work, if not even more, that needs to be done or even addressed. The fast economic expansion of India has been followed, according to the findings of a number of studies, by rising levels of social inequality. However, very few studies have been done to investigate how much of the growing inequality is due to inequality of opportunity; that is, how much of this high inequality is generated by factors that are purely fatalistic and, as a result, beyond any human control. These findings have not yet been published.

DEMOCRATIC PRACTICE AND SOCIAL INEQUALITY IN INDIA

Ideals, Institutions, and Practice

It is helpful to make a distinction between democratic principles, democratic institutions, and democratic practise while attempting to evaluate the past accomplishments of the Indian democracy as well as its potential for the future. The overarching concept of "government of the people, by the people, and for the people" is broken down into its component parts, which are referred to as democratic principles. They include political characteristics that can be seen to be intrinsically important in terms of the objective of democratic social living, such as freedom of expression, participation of the people in deciding on the factors that govern their lives, public accountability of leaders, and an equitable distribution of power. These characteristics include freedom of expression, participation of the people in deciding on the factors that govern their

lives, public accountability of leaders, and an equitable distribution of power. Democratic institutions go beyond these fundamental purposes and include instrumental arrangements such as constitutional rights, effective courts, responsive electoral systems, functioning parliaments and assemblies, open and free media, and participatory institutions of local governance. These institutions are all essential to a democratic society.

Inequality and Empowerment

It is helpful to differentiate between the many factors that contribute to the constraints placed on democratic practise. In a setting with democratic institutions, the actual exercise of democratic principles may be constrained for at least three different reasons. To begin, democratic institutions run the risk of becoming dysfunctional owing to factors such as inefficiency or corruption. Fraud during elections is one example, as is the paralysis of the judicial system caused by an overwhelming number of cases. Second, there is a possibility that concerned individuals or groups may not make sufficient use of working democratic institutions. This is frequently the result of a lack of understanding or ability, and it can even be caused by a lack of motivation. A few examples, among many more, are low voter turnout and the impotence of the general population in the face of complicated judicial processes.

REVIEW OF LITERATURE

Dr. S. R. Pandya (2013). It is unfortunate that the social reality of India continues to be one of widespread hardship and inequality; this is a reality that is hard for a youngster or someone who has not yet been accustomed to it to comprehend. In order to question and destroy these inequities, as well as what causes these cruel conditions to endure, there is a demand for a revolutionary push for social reform. This article presents a discussion on the potential factors that contribute to inequality in Indian society, as well as some recommendations for how Paulo Freire's theory and methodology might be used in practise.

Guthrie (2003) did study to determine the apparent weaknesses in critical pedagogy that might really enhance critical awareness. This is the purpose of the enterprise, which signifies Paulo Freire's notion of critical consciousness. Guthrie's research was published in the year 2003.

Van Winkle (2004). I have chosen to study Paulo Freire as a tool in explaining why education is a human right because throughout his work he has established the requirement for people to be literate in order for them to be regarded "really human." This is why I have chosen to study Paulo Freire.

Daniels (2005) did study to understand how and why adult women construct meaning out of credible, still photos without the accompaniment of language. During this research, the participants schematized and proved Paulo Freire's idea of critical awareness.

Lee (2005) performed study to investigate Paulo Freire's Dialogical Pedagogy and the potential for it to be implemented in Taiwan's current educational system.

Wee (2006) carried out study in order to investigate in finer detail the causes for the low levels of achievements of the ABET (Adult Basic Education and Training) and how the centre may be evaluated from a Freirean point of view. Because it is predicated on the straightforward but essential Freirean method of "problem posing," it is the antithesis of "Banking" Education, which seeks solutions or provides answers.

Andrade (2007) research was done to investigate the possibilities of reinventing Freirean critical pedagogy in the context of Indian formal education, as well as to investigate the tensions and limitations that arise from such an attempt and that would need to be addressed in order for such an endeavour to be successful.

Within the Educational and Cultural Association Didá in the city of Salvador da Bahia, Brazil, Flood (2007) performed research to uncover the ideas and educational theory of Paulo Freire in order to investigate the concepts of identity and musical agency.

Chem (2008) carried out a research using Paulo Freire's dialogic pedagogy in order to investigate the verbal exchanges that took place in the classrooms of junior high schools with pupils who had low academic achievement.

Research was undertaken by Linda (2008) to determine whether or not the work of Brazilian educator Paulo Freire provides a foundation for a better understanding of bullying in American schools.

THE IMPACT OF INEQUALITY ON GROWTH

The new research on how economic development is affected by inequality in OECD nations, which will be released below, takes into consideration the concerns that were highlighted previously and that constrained previous analyses in the following ways: Techniques of estimation: This model is analogous to the one that is used in the great majority of empirical studies of growth determinants, and as shown in Annex 3, it may be derived from an improved version of the Solow growth model. Overall, this model is rather useful. According to the empirical equation, growth may be estimated as a linear function of beginning inequality as well as income, human capital, and physical capital. In the process of estimate, panel data are utilised, which leads to the following form for the baseline regression specification:

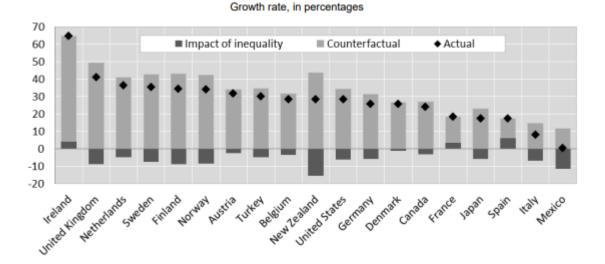
$$lny_{i,t} - lny_{i,t-1} = \alpha lny_{i,t-1} + X_{i,t-1}\beta + \gamma lneq_{i,t-1} + \mu_i + \mu_t + \epsilon_{i,t}$$

GMM estimators in growth regressions

Because the vast majority of empirical growth models are founded on the principle of conditional convergence, growth equations such as (1) contain some dynamism in lagged output (the independent variable lnyi,t-1), and they can be reformulated as dynamic panel data models. This is due to the fact that the majority of empirical growth models are based on this principle.

$$lny_{i,t} = (1+\alpha)lny_{i,t-1} + X_{i,t-1}\beta + \gamma lneq_{i,t-1} + \mu_i + \epsilon_{i,t}$$

It is extremely unlikely that the standard panel data procedures that are used to estimate model (1a), such as the Least Square Dummy Variable estimator, can produce unbiased estimates of the factors that are relevant to consideration. This is because it is highly improbable that these procedures can produce unbiased estimates of the factors (and).

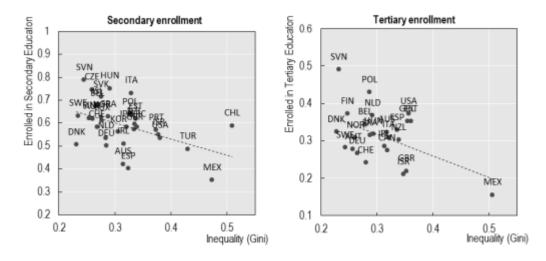


Estimated consequences of changes in inequality on cumulative per capita GDP growth (1990-2010)

The first four columns of Table 1 are devoted to illustrate the gap in total income that is disposable. This metric is applicable to those theoretical models discussed in Section 2 that predict that inequality causes the poor to lose out on opportunities (theory b), as well as those models in which inequality rather reflects the payoff for expensive investments in human or physical capital. It is anticipated that those with lower incomes would forego a number of chances due to inequality (theory d). The "endogenous fiscal policy" argument, on the other hand, is not the ideal one to put to the test using discretionary income as the yardstick (theory a). According to this point of view, an increase in market income disparity (as opposed to inequality in disposable income), would encourage voters to pick a high level of (distortive) taxes.

INEQUALITY, SOCIAL MOBILITY AND HUMAN CAPITAL ACCUMULATION

There is an inverse link between the amount of income disparity in OECD nations and the average level of educational achievement in those countries. OECD countries have higher levels of educational attainment on average than less developed countries. Figure 4 illustrates a direct correlation between the percentage of a country's population enrolled in higher education (the panel on the right) and upper secondary education (the panel on the left) and the Gini coefficients, which measure the degree of inequality in a country's overall disposable income. The higher the percentage of a country's population enrolled in higher education, the lower the Gini coefficient will be.



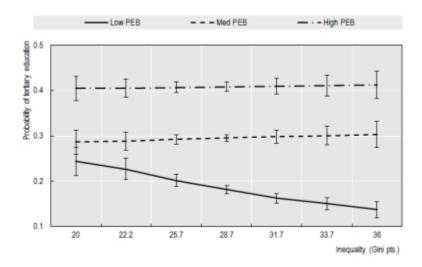
Inequality and enrolment rates across OECD countries, 2010

Combining data on the population segmented by age group with data on the number of students enrolled resulted in the creation of this graph (by age class and degree of education). The data provided by the OECD on the number of students enrolled was segmented according to age group as well as level of education. In order to establish the percentage of the population that is 15 to 19 years old that is enrolled in upper-level secondary school, calculations must be made in proportion to the entire population that falls within that age range (20-24 for the ratio of tertiary enrolled). For all computations using either ratio, the year 2010 was used as the base year. When individuals were 10 to 14 years old in 2005 (left panel) and 2000 (right panel), the Gini coefficient was utilised to establish a comparison between the degrees of inequality that existed during those years (right panel). When examined at a confidence level of 1%, both regression coefficients suggest statistically significant levels of significance in relation to the variable in question.

$$HC_{i,t,c} = \boldsymbol{\beta}_{1} \text{PEB}_{i,t,c} * Ineq_{t,c} + \boldsymbol{\beta}_{2} \text{PEB}_{i,t,c} + \theta X_{i,t,c} + \mu_{t} + \mu_{c} + \epsilon_{i,t,c}$$

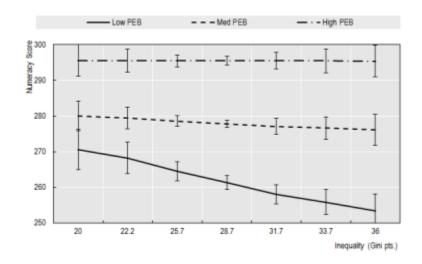
7/14 Lokmani *, Department of Sociology, B.R.A. Bihar University, Muzaffarpur, India. E-mail: lokmani2lng@gmail.com We put these various hypotheses to the test in this section by comparing the results of three different sets of data (additional evidence may be found in Annex3):

- The first is a measure of the amount of human capital gathered by the individual called the likelihood of obtaining higher education.
- The second is an indicator of skill competence that captures cognitive capacity and therefore also accounts for the level of education attained.
- The third measurement is an indicator of the probability of employment, which expands the focus beyond educational attainment to investigate the influence of inequality on prospects in the labour market..



Average probability of tertiary education by parental educational background and inequality

The graph depicts the average expected likelihood, as a function of the degree of inequality, that persons from low-, middle-, and high-income families (in terms of their educational background) will acquire higher education (Gini points). A low PEB means that neither of the parent's completed their higher secondary schooling; High PEB: at least one parent has completed all levels of secondary and post-secondary education up to but not including tertiary education. Medium PEB: at least one parent has completed all levels of secondary and post-secondary education up to but not including tertiary education. Medium PEB: at least one parent has completed all levels of secondary and post-secondary education up to but not including tertiary education. The baseline probability for each group are represented by the dashed lines. The bars represent confidence intervals at the 95% level. On the X-axis of the graph, the values of the Gini coefficient indicate the percentiles of the underlying distribution of inequality indices. Particularly noteworthy are the 25th (25.7), the median (28.67), and the 75th positions (31.7).



Average numeracy score by parent educational background and inequality

Individuals who came from poor, medium, and high family (educational) backgrounds are shown on a graph that shows their average projected numeracy score as a function of the degree of inequality (Gini points) in the country when they were around 14 years old. A low PEB means that neither of the parent's completed their higher secondary schooling; At least one parent has completed secondary school and some postsecondary education (but not necessarily tertiary education); High PEB: at least one parent has completed tertiary education. The baseline probability for each group are represented by the dashed lines. The bars represent confidence intervals at the 95% level. On the X-axis of the graph, the values of the Gini coefficient indicate the percentiles of the underlying distribution of inequality indices. Particularly noteworthy are

Descriptive Statistics

The dependent and independent variables each have their own set of descriptive statistics presented in Table 2. The average value of the Gini Index is 0.46, as can be seen in the table below. This is a large deviation from the standard of zero, which represents complete equality. GDP per capita's mean value averages at roughly 50,000 US dollars. There appears to be a significant amount of fluctuation in GDP Growth, with 65% being the highest figure and -28% being the lowest value. On the other hand, the mean number for GDP comes out to roughly 3% on average. The remaining independent factors are examined in an effort to provide an explanation for any further variances found in the dependent variables.

Descriptive Statistics

Variables	Ν	Mean	Standard	Minimum	Maximum
			Deviation		

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GDP Growth	357	0.03	0.08	-0.28	0.65
GDP Initial	357	40869	11625	17906	93235
Gini Index	357	0.46	0.02	0.39	0.54
Average Income	357	64214	11005	45141	130074
Population	357	704180	1575080	55375	1.87e+07
Innovation	357	28.27	48.82	0.41	561.57
High School	357	0.17	0.06	0.02	0.37
Human Capital	357	0.25	0.08	0.12	0.57
Crime Rates	318	372.14	164.39	53.40	1057

Correlation Analysis

Table 4.2 presents separate sets of descriptive statistics for the factors that are dependent and independent on the experiment. According to the data presented in the following table, the typical value of the Gini Index is 0.46. This is a significant departure from the norm of zero, which denotes total equality in the situation.

GDP Correlations

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Variable	GDP Growth	GDP Level			
Gini Index	0.073	0.159**			
Average Income	0.122***	0.614***			
Population	0.082**	0.422***			
Innovation	0.034	0.488***			
High School	0.164***a	-0.164***			
Human Capital	-0.100a	0.583***			

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Crime Rates	0.091a	-0.018
*** Significant at 1% level		
** Significant at 5% level		
a, variable show conflicting		
sign		

There is a correlation between some of the elements that are independent, as shown in, which can be observed in (Table 8, Appendix). This hints at the potential occurrence of a problem with multicollinearity in the future. There is a significant connection between Human Capital and a number of the other regressors, particularly Innovation (0.678) and Average Income (0.678), both of which have the same value (0.605). As a result, it is reasonable to assume that individuals with higher levels of education will have higher salaries and thus submit a bigger number of patent applications. In addition to this, there is an inverse association, although a somewhat strong one, between the High School variable and human capital (-0.546). There is a link between Average Income and Innovation (0.534), in addition to Population, which shows that Human Capital is not the only factor that influences innovation (0.474). suggesting that those who live in metropolitan areas with a lower population.

Regression Analysis

An OLS regression is carried out in 357 metropolitan areas in order to investigate the extent to which income inequality as well as the controllable variables are related to GDP Growth and GDP Level. According to the Fstatistics, every single regression equation has a significance level of one percent or above. The outcomes of the regressions are summed up in Table 4 and Table 5, respectively.

Varia	Eq.	VIF	Eq. (2)	VIF	Eq. (3)	VIF	Eq. (4)	VIF	Eq. (5)	VIF
bles	(1)									
Const	-		-		-		-0.913**		-0.978*	
ant	0.08		1.643**		0.868**					
	1		*							
	(-		(-3.80)		(-2.24)		(-2.42)		(-2.77)	
	0.97)									
Gini	0.24	1.00	0.508**	1.2	0.240	1.10	0.507**	1.1	0.242	1.10
	6			6			*	1		
	(1.32		(2.46)		(1.22)		(-0.42)		(1.23)	

GDP Growth Regression

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)									
Avera ge	-	-	0.136** *	2.0 3	0.069*	1.60	0.149** *	1.7 1	0.079	1.35
Incom e			(3.44)		(1.92)		(4.23)		(2.40)	
Popul ation	-	-	-0.001a	1.5 4	-0.003a	1.52	-	-	-0.002	1.43
			(-0.14)		(-0.57)				(-0.41)	
Innov ation	-	-	0.011**	2.0 6	0.004	1.74	0.013**	2.0 6	-	-
			(2.12)		(0.70)		(2.53)			
High Schoo l	-	-	0.073a (0.73)	1.7 5	0.268** *a (0.84)	1.26	-	-	0.247* (3.07)	1.11
Huma n Capita 1	-	-	- 0.396** *a (- 3.71)	3.5 2	-	-	- 0.422** *a	2.5 2	-	-
Crime	-	-	0.000a	1.2 1	0.000a	1.19	-	-	0.0000 2	1.15
Rates			(0.45)		(0.84)				(0.73)	
R2	0.00 5		0.096		0.056		0.088		0.055	
Adj. R2	0.00 2	0.076		0.03	8	0.078		0.04	0	

The GDP Growth and Gini are analysed in Equation 1. The model's R2 after adjustments is equal to 0.002 percent. Because the Gini index has a beta value of 0.246, an increase of one unit in GDP Growth results in an increase of 0.246 units in the Gini index. In contrast, Gini has no significant relationship with GDP Growth when a straightforward bivariate analysis is performed. In light of this, it is impossible for us to assert that there is a connection between the two variables when we take into account none of the other independent variables.

The GDP Growth is analysed using Equation 2, which takes into account all of the independent factors. The model's R2 after adjustments is equal to 0.076. The Gini coefficient has a positive sign and becomes significant at a level of 5 percent; this indicates that as GDP per capita growth increases, so does inequality. If we assume that all of the other variables will remain the same, we can calculate that the Gini coefficient will go up by 0.508 units for every unit that the GDP per capita grows. This is consistent with the outcomes that were anticipated. There is a substantial relationship between the variables Average Income, Innovation, and Human Capital. Although it is not significant, the High School variable has a positive sign, which goes against the predictions of the theory. In this particular instance, the model forecasts the opposite result: as the number of residents with an education level lower than that of a high school graduate

increases, growth will follow and increase as well. The first equation has a potential problem with multicollinearity, namely with the Human Capital variable, which has a quite high value for the variance inflation factor (VIF), which is 3.52.

CONCLUSION

The aim of this research was to determine, with regard to the various parts of the United States, whether or not there is a connection between expanding economies and increasing levels of socioeconomic disparity. In order to have a better understanding of the nature of this link, the inquiry compiled data from 357 metropolitan statistical regions. There is a significant amount of controversy around the hypotheses that attempt to explain the impact that unequal distribution of wealth has on the expansion of the economy. The results of these hypotheses are, for the most part, inconclusive. Those who believe that there is a negative connection between the two emphasise the ways in which educational attainment among lower socioeconomic classes can suffer when there is inequality, how this can lead to pressure for policies that redistribute wealth, how this can result in sociopolitical instability, and how this can result in excessive rent-seeking. Those who advocate for a negative connection also highlight the ways in which there is a connection between the two.

REFERENCES

- 1. Aghion, P., Caroli, E. and Garcia-Penalosa, C. (1999) Inequality and economic growth: the perspective of the new growth theories. Journal of Economic Literature 37(4): 1615-1660.
- Arellano, M. and S. Bond (1991); "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations," Review of Economic Studies, 58(2), 277-297.
- 3. Arellano, M. and O. Bover (1995); "Another Look at the Instrumental Variable Estimation of Error- Components Models," Journal of Econometrics, 68(1), 29-51.
- 4. Barro R. and J. Lee (2013) "A new data set of educational attainment in the world, 1950–2010", Journal of Development Economics, Volume 104, Pages 184-198
- 5. Coulombe S and J Tremblay (2006) "Literacy and Growth," The B.E. Journal of Macroeconomics, vol.
- 6. D'Addio, 2007 "Intergenerational Transmission of Disadvantage: Mobility or Immobility Across Generations?," OECD Social, Employment and Migration Working.
- 7. OECD (2010) "Going for growth. Responding to the Crisis while Protecting Long-term Growth" OECD, Paris.
- 8. OECD (2012), Education at a Glance 2012: OECD Indicators, OECD Publishing
- 9. Ostry J., A. Berg and C. Tsangarides (2014) "Redistribution, Inequality, and Growth" IMF Staff discussion note, February

- 10. Barro R. and J. Lee (2013) "A new data set of educational attainment in the world, 1950–2010", Journal of Development Economics, Volume 104, Pages 184-198
- 11. Clarke, G.R.G. (1995) More evidence on income distribution and growth. Journal of Development Economics 47(2): 403-427.
- 12. Forbes, K.J. (2000) A reassessment of the relationship between inequality and growth. American Economic Review 90(4): 869-887.
- 13. Hassler, John, José Rodríguez Mora and Joseph Zeira, 2007, "Inequality and Mobility," Journal of Economic Growth, 12(3), 235-259.
- Hanushek, E. and L. Woessmann (2012) "Do Better Schools Lead to More Growth? Cognitive Skills, Economic Outcomes, and Causation" Journal of Economic Growth, 17(4), December 2012, 267-321.