

Overview

Imagine Maria, a six-year-old girl living in rural Guatemala. She has four brothers and sisters, and her mother is an illiterate widow who earns about \$180 per month as a subsistence farmer. What are Maria's chances of becoming a prominent lawyer or a university professor? Not very high, and certainly a lot lower than those of a six-year-old boy growing up in Guatemala City with two parents in his home, both with a secondary education and a good income, and only one sibling. Many people in Latin America, like Maria, face difficult odds of achieving economic and social success because of circumstances beyond their control: gender, race, location of birth, or their family background. Equality of opportunity is about giving Maria and all other children in the world the same chance to be successful in life.

Reducing inequality is one of the main development challenges in Latin America. Inequality is pervasive, resilient, and judged to be fundamentally unfair by many. Despite this reality, the political and policy debates about if, how, and by how much inequality should be reduced are often polarizing. Left and right do not easily agree on what redistributive policies should be implemented, if any. Attitudes toward inequality and toward redistribution vary sharply. One reason is that people usually tolerate (and maybe agree with) income inequality arising from differences in choices made, effort extended, and talents put to use by individuals, while they view as fundamentally unfair inequality arising from differences in opportunities.

Equality of opportunity seeks to level the playing field so that circumstances such as gender, ethnicity, birthplace, or family background, which are beyond the control of an individual, do not influence a person's life chances. Success in life should depend on people's choices, effort, and talents, not on their circumstances at birth. Reaching consensus on an agenda of reducing inequality of opportunity is politically more viable than trying to agree on redistributive policies to reduce inequality of income or wealth.

Until now, no systematic measures—comparable to the Gini or other measures of economic inequality—have existed to summarize the level of inequality of opportunity observed in Latin America. This book aims to

fill this gap, using two different techniques. The first technique, discussed in chapters 2 and 3, develops a Human Opportunity Index to measure differences in opportunity among children. The basis for the first technique is the recognition that as long as some children in a country do not have access to specific basic services that are critical for future advancement in life, such as primary education or running water, and as long as that access is influenced by circumstances, inequality of opportunity will prevail. The Human Opportunity Index can be used to track a country's progress toward the goal of providing all children equal access to these basic opportunities, simultaneously tracking both the overall coverage and the equity of their distribution. The index, described in detail in chapters 2 and 3, can serve as a tool to help guide public policies aimed at equalizing opportunity. If the inequality of outcomes today reflects past inequality in basic opportunities, it is all the more important now for policy makers to be able to track the allocation of basic opportunities among children so they can design policies to break intergenerational cycles of inequality and improve future outcomes.

The second technique, discussed in chapters 4 and 5, builds on measures of income inequality, consumption inequality, and inequality in educational achievement, and estimates the share of current outcome inequality that can be explained by circumstances that are beyond the control of the individual. This is interpreted as the share of inequality that can be related to inequality in opportunity. In a sample of countries of the region, conservative estimates show that between one-half and one-quarter of current inequality of consumption reflects inequality of opportunity, a very sizable share. Using this same measuring technique, it is also possible to generate opportunity profiles describing the characteristics of the most-disadvantaged groups.

This overview chapter briefly outlines the main findings of the study, which are discussed in more detail in the individual chapters. The overview begins with an explanation of the Human Opportunity Index described in chapters 2 and 3, including the estimates for 19 Latin American countries and possible policy applications of the index. Next, the overview briefly outlines the analysis in chapters 4 and 5, which estimates the share of existing unequal outcomes in income, consumption, and education associated with unequal opportunity. The overview concludes with final remarks.

The Human Opportunity Index

The Human Opportunity Index is a synthetic measure of inequality of opportunity in basic services for children. The index is inspired by the social welfare function proposed by Sen (1976), and holds that a development process in which society attempts to equitably supply basic opportunities requires ensuring that as many children as possible have access

to those basic opportunities, with a target of universalism; it requires distributing available basic opportunities increasingly toward the more disadvantaged groups. The Human Opportunity Index summarizes in a composite indicator both elements: (i) how many opportunities are available, that is, the coverage rate of a basic service; and (ii) how equitably those opportunities are distributed, that is, whether the distribution of that coverage is related to exogenous circumstances. Hence, an increase in coverage of a basic service at the national level will always improve the index. However, if that increase in coverage is biased toward a disadvantaged group (for example, a poor region), it will further reduce inequality of opportunity, increasing the index more than proportionally.

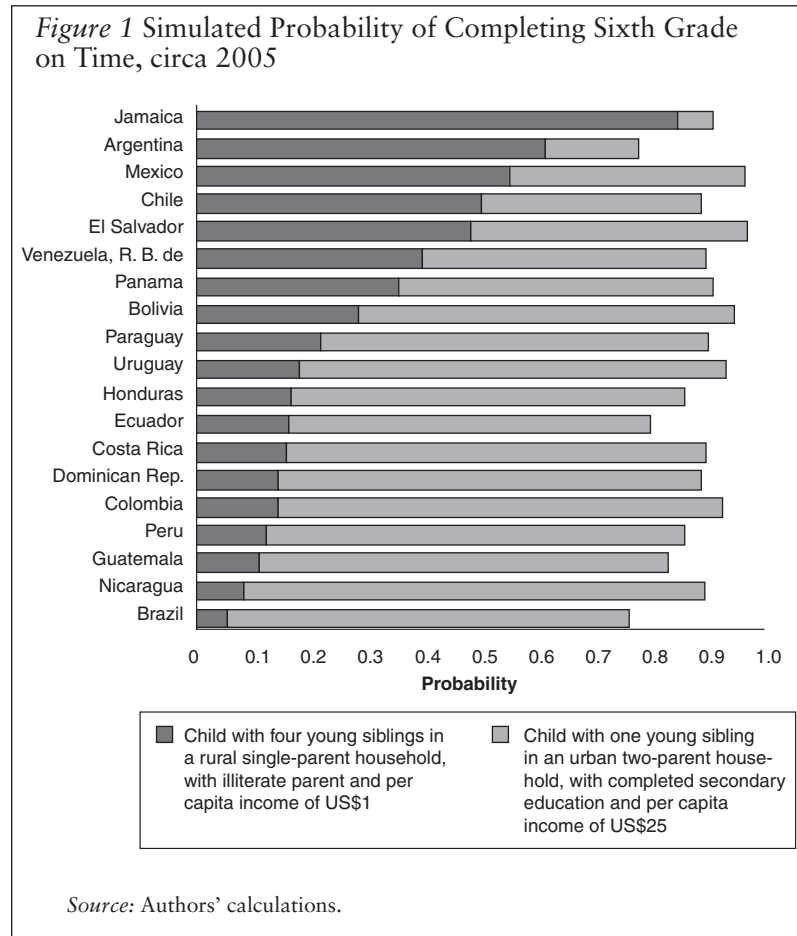
This study defines *basic opportunities* as a subset of goods and services for children, such as access to education, to safe water, or to vaccinations, that are critical in determining opportunity for economic advancement in life. These are either affordable by society at large already, or could be in the near future, given the available technology. Universal provision of basic opportunities is a valid and realistic social goal. In the case of children, most societies agree on the importance of a set of basic opportunities, at least at the level of intentions; even if different societies might have different standards about the right set of basic opportunities, there is some global consensus on a few of them, just as there is consensus regarding the Millennium Development Goals. Here we include as basic opportunities variables related to education (completion of sixth grade on time, and school attendance at ages 10–14) and housing conditions (access to clean water, sanitation, and electricity). Other basic opportunities can be added, but these were available from reasonably comparable available household surveys.

The Human Opportunity Index focuses on coverage and inequality of opportunities among children for three main reasons:

- First, from an empirical standpoint, the principle of equality of opportunity as “leveling the playing field” can be readily operationalized by measuring children’s access to basic goods and services that are critical for the full development of a child. For children, access defines “opportunity,” because children (unlike adults) cannot be expected to make the efforts needed to access these basic goods by themselves.
- Second, from a policy standpoint, evidence indicates that interventions to equalize opportunity early in the lifecycle of an individual are significantly more cost effective and successful than interventions later in life.
- Third, focusing on children helps put inequality of opportunity at the center of the policy debate. As pointed out by the *World Development Report 2006* (World Bank 2006), on the day of their birth, children cannot be held responsible for their family circumstances,

despite the fact that these circumstances—such as race, gender, parents' income and education, and urban or rural location—will make major differences in the lives they lead.

To get a sense of the importance of the inequitable distribution of opportunity, consider the case of having access to electricity. Despite the high average access to electricity in most countries in the region, there is not much equity across groups, as can be seen when comparing average probability for access to electricity for two different children (figure 1). One child has four siblings in a rural single-parent household, with an illiterate parent and a household per capita income of US\$1 a day. The other has one sibling in an urban two-parent household, and both parents have completed secondary education and earn a household per capita income of



US\$25 a day. The differences in access to electricity are considerable, and vary tremendously across Latin America. In Chile, a relatively rich child's opportunity is almost double that of a child from a poorer background, while in Peru and Nicaragua the difference is more than sixfold. Similar pronounced differences are documented in services such as access to water, sanitation, and electricity as well as education.

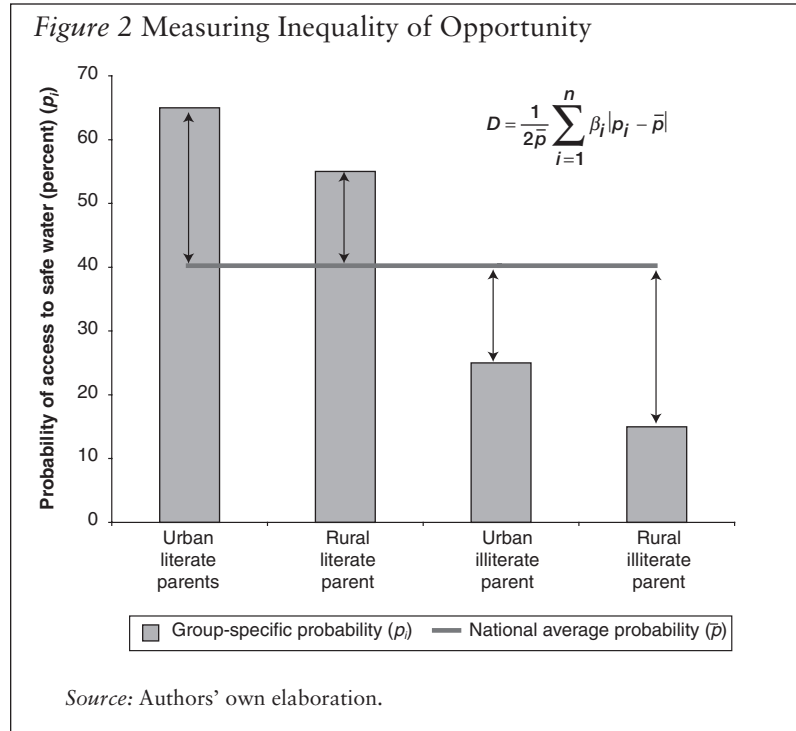
Methodology for Building the Human Opportunity Index

As noted, the Human Opportunity Index synthesizes into a single indicator measurements of both the absolute level of basic opportunities in a society and how equitably those opportunities are distributed. The first component of the index—average coverage rate for a given basic opportunity—can be readily determined using household survey data. The second component—the equity of opportunity distribution—requires a more involved calculation.

Our measure of inequality of opportunity is a version of the dissimilarity index (D), widely used in sociology and applied to dichotomous outcomes. The D -index measures the dissimilarity of access rates for a given service for groups defined by circumstance characteristics (for example, gender, location, parental education, and so forth) compared with the average access rate for the same service for the population as a whole. If the equal opportunity principle is consistently applied, an exact correspondence between population and opportunity distributions should be observed. That is, if half the population is in circumstance group A, 35 percent in group B, and 15 percent in group C, opportunities should be distributed in the same proportions. The D -index ranges from 0 to 1 (0 to 100 in percentage terms), and in a situation of perfect equality of opportunity, D will be zero.

Access probability gaps are at the heart of the D -index (figure 2 illustrates this with an example). The horizontal line represents the average probability in the entire population that a child will have access to clean water. The bars represent the access of probability of specific groups. The D -index is a weighted average of the absolute differences of group-specific access rates (p_i) from the overall average access rate, \bar{p} .

The D -index will be lighter than zero, and will capture the fact that children of illiterate parents living in rural areas have a much lower probability of having access to safe water than their counterparts in urban areas with literate parents. There can be as many probability gaps as there are possible combinations of group-defining circumstances. For example, 20 income groups, 7 family-size groups, and whether one is in a rural or urban setting already generates 280 probability gaps. If augmented with parental education and the gender of the child, the total number of probability gaps would be very large. The exact procedure to calculate the p_i 's involves an econometric specification.



The D -index can be interpreted as showing the fraction of all available opportunities that need to be reassigned from better-off groups to worse-off groups to achieve equal opportunity for all. In one of the education indicators, finishing sixth grade on time, for example, Guatemala's D -index score is 27 percent, indicating that 27 percent of total opportunities for finishing sixth grade on time have to be reallocated to ensure equal chances for all. By contrast, in Chile less than 3 percent of these opportunities need to be reallocated to ensure equal chances for all children. The average for this indicator in Latin America and the Caribbean as a whole is 11 percent. The regional average for school attendance at ages 10 to 14 is 3 percent, for water is 12 percent, for sanitation 26 percent, and for electricity 10 percent.

The Human Opportunity Index (O) incorporates into a single composite indicator both overall access rates and the D -index measure of opportunity distribution. Analogous to Sen's welfare function that combines income per capita with income distribution indicators, this index combines average access to opportunities (\bar{p}) with how equitably those opportunities are distributed (D). The proposed index is given by

$$O = \bar{p}(1-D).$$

On an intuitive level, the Human Opportunity Index takes access to a basic opportunity, the coverage rate, and “discounts” it if those opportunities are allocated inequitably. Two forces drive the index: for a given level of D , an increase in the prevalence of opportunities (that is, a higher \bar{p}) increases the index, while an improvement in the way existing opportunities are allocated (a reduction in D) will also improve the index. Hence, the index is Pareto-consistent, in that it will improve if the overall average access to a given opportunity increases, no matter how access is distributed—at least someone is better off, and no one is worse off. However, the D -index gives much greater weight to those opportunities allocated to a disadvantaged sector of the population than to those allocated to an advantaged group, and is therefore a distribution-sensitive measure.

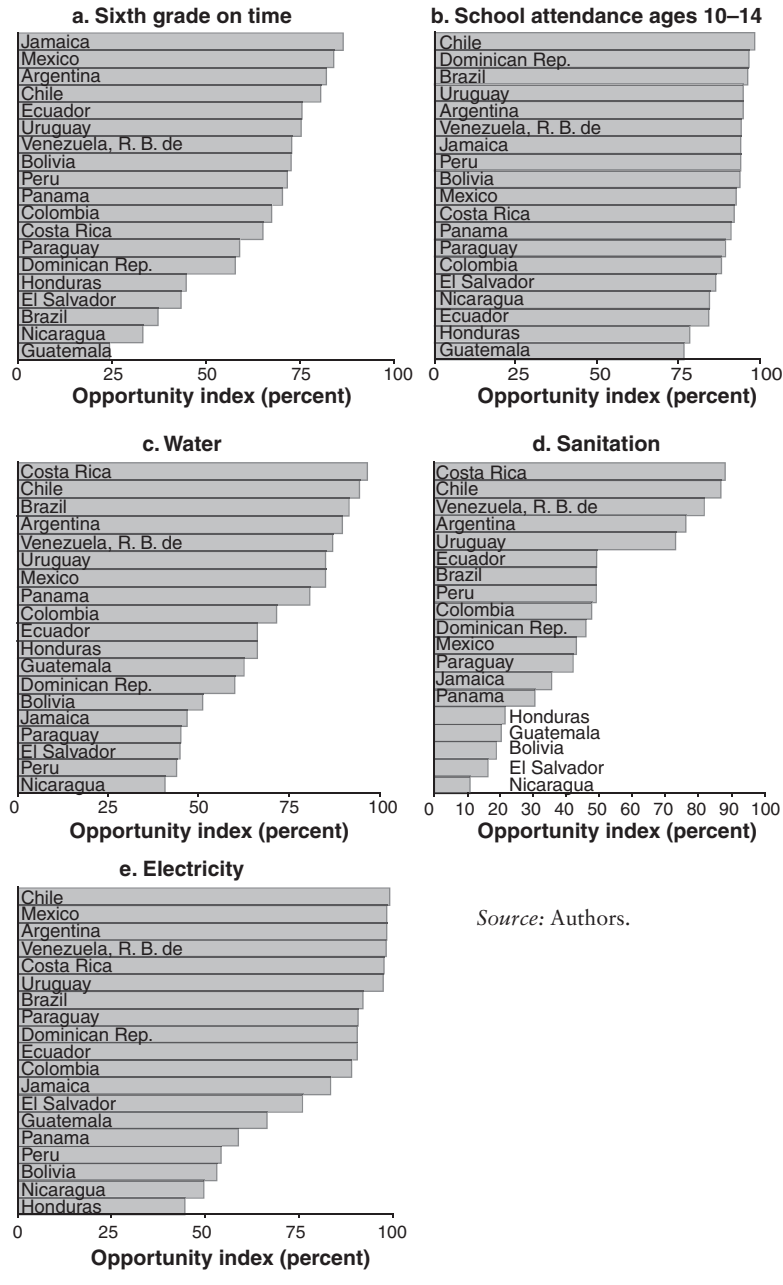
Human Opportunity Index Results for 19 Countries in Latin America and the Caribbean

The study calculated Human Opportunity Indexes using data from nationally representative household surveys for 19 Latin American and Caribbean countries over a period of approximately a decade (1995–2005). The criterion was to choose two comparable surveys as close as possible to 1995 and to 2005. Together, the surveys are representative of nearly 200 million children ages 0–16 from 19 Latin America and Caribbean countries. The five basic opportunity variables considered were completing sixth grade on time, school attendance at ages 10–14, and access to water, sanitation, and electricity (figure 3).

The Human Opportunity Index for completion of sixth grade on time shows that in Jamaica, Mexico, Argentina, Chile, Ecuador, and Uruguay more than 75 percent of all opportunities needed to ensure universal access are available *and* have been allocated according to an equality of opportunity principle. In contrast, in Honduras, El Salvador, Brazil, Nicaragua, and Guatemala this indicator is below 50 percent. Scores across the 19 countries range from 24 percent in Guatemala to 86 percent in Jamaica. The Human Opportunity Index for school attendance for children ages 10 to 14 illustrates that all countries score very high levels: above 75 percent. Scores across the 19 countries range from 77 percent in Guatemala to 98 percent in Chile. This is a much narrower gap (22 percentage points) than in the case of completion of sixth grade on time. For these two educational variables, the regional average is 62 percent and 90 percent, respectively. In these educational opportunities, as well as in those related to housing conditions, described below, the value of the Human Opportunity Index is in all cases below the coverage rate. This is because in all cases the D -index, which exclusively measures how available opportunities are allocated, has a positive value.

For access to water, variance within the region is larger, with Jamaica, Nicaragua, Peru, El Salvador, and Paraguay lagging below the 50 percent mark, while Costa Rica, Chile, Brazil, and Argentina are above 90 percent.

Figure 3 Human Opportunity Indexes for Selected Educational and Housing Indicators



The Latin American situation as a whole is much worse for sanitation than for water services, with a regional average of 67 percent in the case of water and 43 percent in the case of sanitation; four Central American countries plus Bolivia show scores below 30 percent. Regarding electricity, several countries have practically reached universal access, while others, such as Peru, Bolivia, Honduras, and Nicaragua, show Human Opportunity Index scores of around 50 percent.

Some countries—El Salvador, Guatemala, and Nicaragua—have low levels for all the different opportunities considered, while Chile is close to universal access in most cases. The performance of a few countries diverges widely when measuring different opportunities. For instance, Jamaica is close to providing access to all in education, but is very far from universality for water and sanitation. Brazil is close to universal access in electricity, at midway in sanitation, and has much room for improvement in education.

To construct a single summary indicator that can facilitate the measurement of opportunity in each country, all five different indicators of children's opportunities—completing sixth grade on time, school enrollment at ages 10–14, and access to water, sanitation, and electricity—were incorporated into an overall Human Opportunity Index (table 1). We first average the indexes for water, sanitation, and electricity into a single index of housing conditions. This is then averaged with the education index, encompassing completion of sixth grade on time and school enrollment for children ages 10–14. The results show that across the different opportunities considered, Argentina, Chile, Costa Rica, Uruguay, and República Bolivariana de Venezuela are closest to universality. Guatemala, Honduras, and Nicaragua are farther from that target, both because of low coverage and because the existing coverage is not equitably distributed.

Analyzing Changes in the Human Opportunity Index

Progress in the Human Opportunity Index varies substantially across countries and across the specific opportunities. In educational opportunities, Brazil and four Andean countries have made above-average improvements over the 1995–2005 period. Countries with below average growth are mainly those with relatively high levels of opportunities already reached (for example, Chile and República Bolivariana de Venezuela). In contrast, Guatemala is a country with initial low levels and below average change in educational opportunities (figure 4). The case of housing conditions is different. Countries still needing substantial progress in housing conditions, for example, Panama and Nicaragua, have only small improvements. Conversely, Chile and Costa Rica, with relatively high initial positions, have improved enough in this area over the 10-year period to reach almost

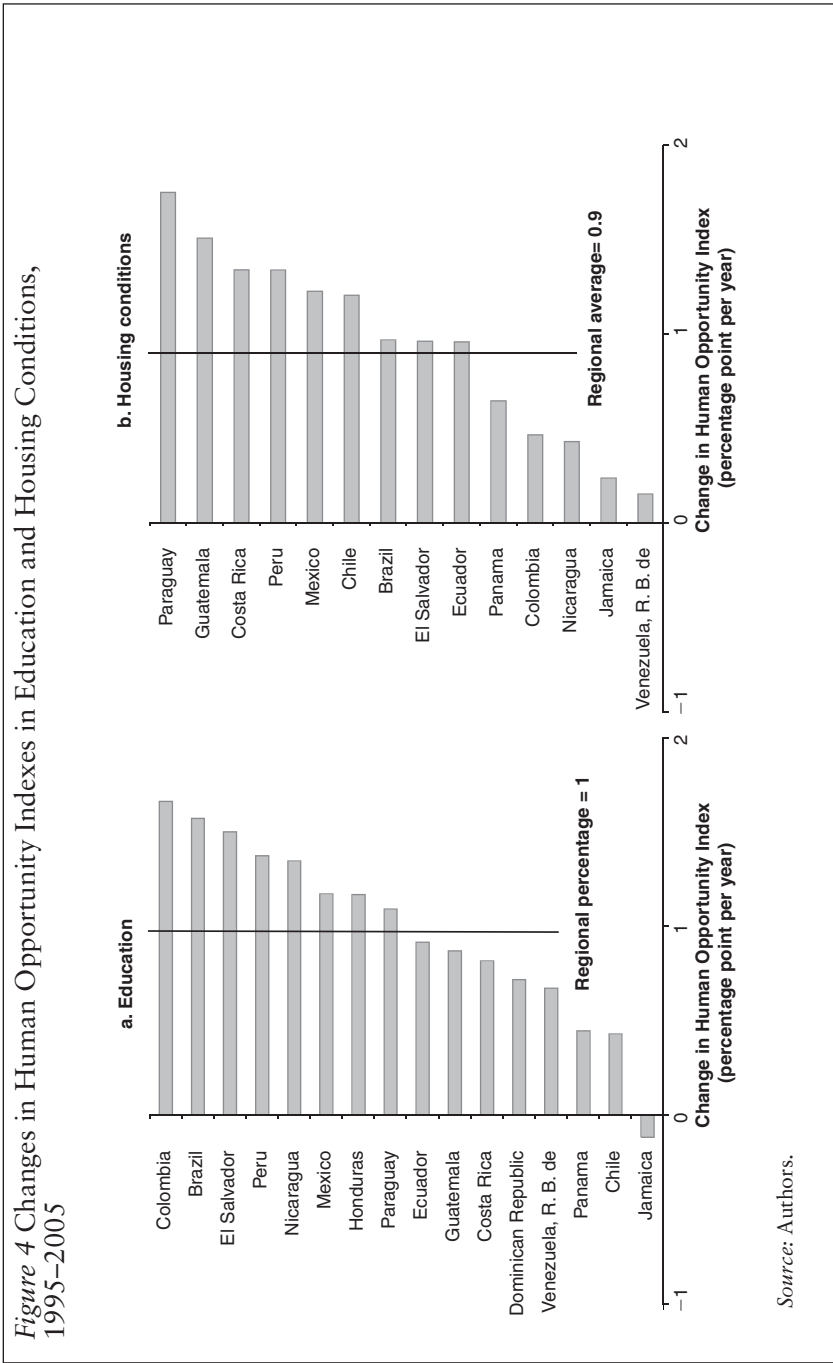
Table 1 Summary Human Opportunity Index (HOI), circa 2005

<i>Country</i>	<i>HOI for education</i>	<i>HOI for housing conditions</i>	<i>Human Opportunity Index</i>
Argentina	89	88	88
Bolivia	83	41	62
Brazil	67	77	72
Chile	90	93	91
Colombia	78	69	74
Costa Rica	79	94	86
Dominican Republic	77	65	71
Ecuador	80	69	74
El Salvador	65	46	55
Guatemala	51	50	50
Honduras	62	44	53
Jamaica	90	55	73
Mexico	88	75	82
Nicaragua	59	34	46
Panama	81	57	69
Paraguay	74	59	67
Peru	83	49	66
Uruguay	85	85	85
Venezuela, R. B. de	84	89	86
Average	76	64	70

Source: Authors.

universal access. Countries such as Peru, Mexico, Brazil, and Paraguay have also recorded large improvements in their opportunities for housing conditions, although substantial additional efforts are needed to equalize opportunities among all children.

By definition, progress in the Human Opportunity Index can occur by (i) increases in average access (\bar{p}), and (ii) increases in equality of opportunity ($1-D$) of the existing opportunities. The empirical analysis shows that two-thirds of the improvements in the Human Opportunity Index are driven by an increase in the total supply of available opportunities, and a third by a reduction of inequities in the distribution of the available opportunities. This tendency varies across countries and basic opportunities, however. For instance, with regard to water, some countries, like El Salvador, have increased average total access and the equality of opportunity in a relatively balanced fashion. Others, like Nicaragua and Guatemala, have expanded opportunity only by increasing average access. If those new opportunities had been allocated in a more equitable fashion, favoring proportionally more children in rural areas or those whose parents are less educated, the overall Human Opportunity Index score for those countries



Source: Authors.

would have risen further. This happened, for instance, in countries like Paraguay and Mexico, in the case of water, Peru and Chile in the case of sanitation, and El Salvador and Brazil in the case of electricity. That is, in several instances, increases in opportunities have been implemented paying particular attention to disadvantaged groups, improving equality of opportunities more than proportionally. But progress is not homogeneous, either across countries or across basic opportunities.

To implement policies that reduce inequality of opportunities, a clear understanding of which key exogenous circumstances are unfairly influencing access of children to basic services is needed. The results indicate that parental education is an important divide in educational opportunity in Latin America and the Caribbean. In 17 out of 19 countries, it is the most important explanation of inequality of sixth grade completion on time. Inequality in enrollment between girls and boys is significant, together with parental education, as a determinant behind inequities in access to school for children between 10 and 14. In contrast, location is the most important circumstance in explaining inequality of opportunity in housing conditions for children. Inequality indexes specific to area of residence are among the top two largest for 17 countries with respect to access to water, for 15 countries with respect to sanitation, and for 14 countries in access to electricity. Without a doubt the urban-rural divide is the most important circumstance in explaining inequality of opportunity in basic housing infrastructure. Parental education and income have a smaller but still important role in explaining why many children do not have access to basic infrastructure services

Expanding Policy Uses of the Human Opportunity Index

The basic opportunities considered in the Human Opportunity Index here—completing sixth grade on time, school enrollment at ages 10–14, electricity access, and water and sanitation services—are generally agreed-on aspirations for universal coverage in Latin America and the Caribbean, and indeed the world. However, the Human Opportunity Index can be readily used to examine other opportunities that might be of interest to a particular government. For example, an exercise for Chile considered access to computers and the Internet as basic opportunities for children. The results indicate that while Chile has had considerable success in expanding coverage and equity for many basic opportunities, it still has considerable challenges ahead regarding computer and Internet access (figure 5).

Another use of the Human Opportunity Index is to analyze inequality of opportunity within a country. An analysis made at the subnational level for Brazil showed that the Human Opportunity Index varied significantly across states, and that progress over time across regions has been uneven. Looking at completion of sixth grade on time, richer Brazilian states have

values that are well below the average for Chile, the best performer in the region (figure 6). At the other end of the scale, the poor states of the northeast are doing worse than Guatemala and Nicaragua, the worst-performing countries in the region. In Brazil, the wealthy states of Santa Catarina and São Paulo perform four times better on the Human Opportunity Index than the poor states of Alagoas and Piauí.

The Relationship between Inequality of Opportunity and Inequality in Outcomes

The exact nature of the dynamic relationship between current inequality of outcomes and past inequality of basic opportunities for children is complex and not easily disentangled. One specific purpose of the Human Opportunity Index is helping countries focus not simply on unequal outcomes, which are not easy to redress, but also on inequality of basic opportunities, which most people agree is unfair and should be reduced as much as possible.

When looking at Latin American countries today, income inequality and inequality of opportunity reveal interrelated but distinct stories. Some countries, such as Costa Rica and Uruguay, show relative income equality and low inequality of opportunity for children (table 2). Other countries with high income inequality today, for example, Brazil and Chile, might have less inequality in the future because equitable access to basic opportunities is improving as a result of long-standing pro-active government policies (although the current levels in these countries are very different). Other countries, for example, Guatemala and Honduras, might still be trapped in a situation of high income inequality and very unequal opportunities for children, suggesting that stronger equity-oriented policies are needed. These are just examples—all countries face unique challenges.

As long as large differences like those found in Latin America exist in basic opportunities, children will have systematically different chances of success in life. As a whole, societies with greater inequality of basic opportunities among children are more likely to show inequalities later in the lifecycle, despite individuals who beat the odds through their effort, talent, and luck.

But inequality in basic opportunities determined by circumstances outside the control of the person will interact with other differences in opportunities that arise throughout life, such as opportunities to access tertiary education or obtain a high quality job, among others. Hence, the book also uses another approach, complementary to the Human Opportunity Index, that measures the share of current outcomes that can be attributed to inequality of opportunity. That measure is applied to income, earnings, and consumption for adults and to educational achievement for young people. The approach is described in the next section.

Figure 5 Opportunity Index and Coverage Rate: Chile, 2006

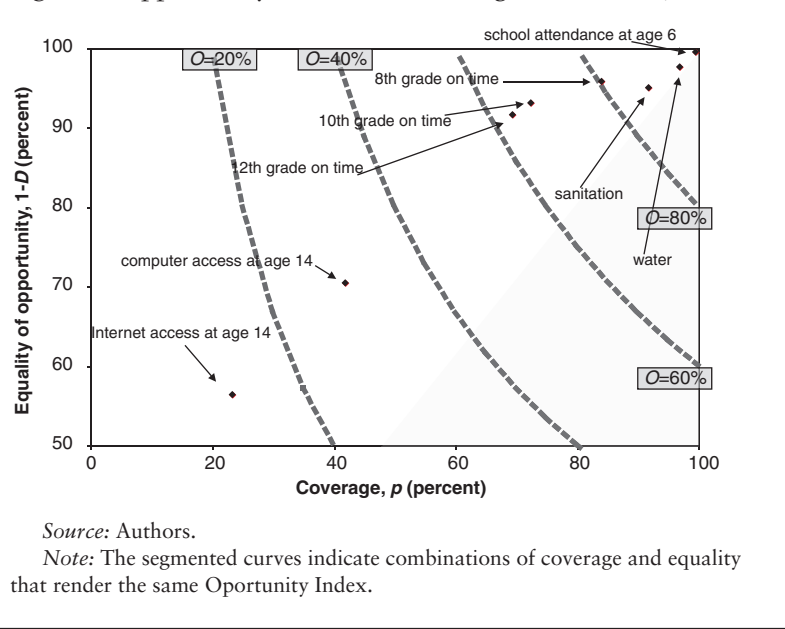


Figure 6 Human Opportunity Index: Completion of Sixth Grade on Time in Brazil by State, 2005

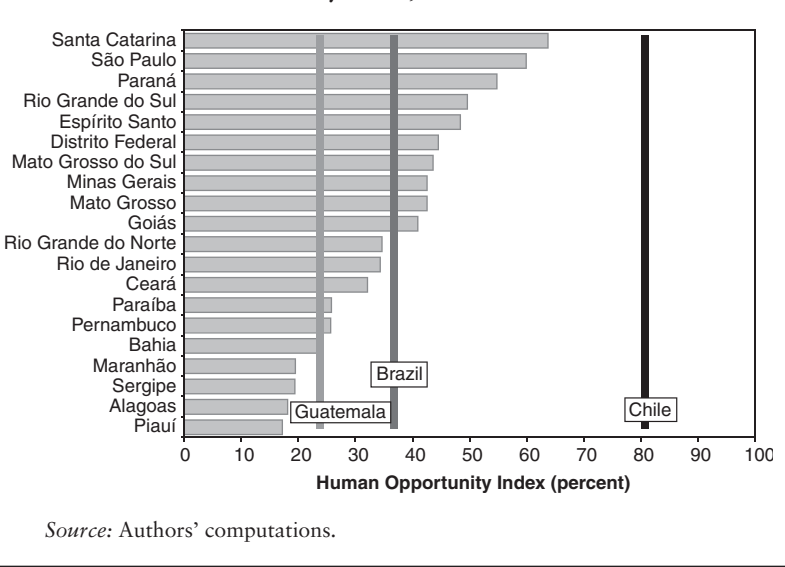


Table 2 Income and Opportunities

<i>Level of opportunity</i>	<i>Level of income inequality</i>	
	<i>Relatively low income inequality</i>	<i>Relatively high income inequality</i>
Lower basic opportunities for children	<i>Puzzling:</i> El Salvador	<i>Inequality trap:</i> Bolivia Honduras
Higher basic opportunities for children	<i>Relative equality:</i> Argentina Costa Rica Uruguay Venezuela, R. B. de	<i>In transition:</i> Brazil Chile Colombia

Source: Authors' compilation based on World Bank and Universidad Nacional de la Plata: Socio-Economic Database for Latin America and the Caribbean (SEDLAC).

Estimating the Share of Unequal Opportunity in Unequal Outcomes

Outcomes such as earnings, income, occupational advancement, health status, or educational achievement in Latin America show marked inequalities that stem, at least partially, from inequality of opportunity. When some of the inequality observed in the outcome of interest can be attributed to exogenous circumstances, such as a person's gender or family background, it reflects inequality of opportunity in a society. In an ideal world, inequality in outcomes should reflect only differences in effort and choices individuals make, as well as luck.

Based upon this idea, inequality of opportunity can be estimated by decomposing outcome inequality into a portion resulting from circumstances that lie beyond the individual's control, and a residual component that rewards choices made, effort put forth, luck, and talent. Individuals cannot be held accountable for the component resulting from circumstances such as birthplace, gender, ethnicity, or parental background because they are exogenous and beyond their control. Moreover, there is a social consensus that these exogenous circumstances should not have an effect on individual outcomes. That component is a measure of inequality of opportunity—a reflection of the influence of those circumstances on overall inequality. It is a "consequential" approach in which inequality of opportunity is reflected by the importance of circumstances in explaining inequality of outcomes. It complements the Human Opportunity Index by

measuring the “results” caused, in part, by the inequality of basic opportunities among children, but adding other mechanisms through which these exogenous circumstances may have an effect on outcome inequality.

In conceptual terms, the approach for estimating inequality of opportunity as a share of total outcome inequality is simple. First, six variables related to circumstances exogenous to the individual were identified from the most comprehensive data sets available: gender, race or ethnicity, birthplace, the educational attainment of the mother, the educational attainment of the father, and the main occupation of the father. In each country, the sample data were partitioned into groups or “cells,” such that all individuals in any given cell have exactly the same combination of the six circumstances. The difference in outcomes *between* cells can be attributed to inequality of opportunity, while the differences *within* cells can be considered the result of effort or luck.

A comparative assessment of inequality of economic and educational opportunities was undertaken using this methodology for seven Latin American countries (Brazil, Colombia, Ecuador, Guatemala, Mexico, Panama, and Peru), based on data from nationally representative household surveys and international education assessments. The choice of circumstance variables and outcome variables can be changed, depending on data availability and the specific goals of the research project in question.

Inequality of Economic Opportunity

Inequality of economic opportunity was assessed first for labor earnings, household income, and household consumption. It was conservatively estimated to account for between one-fifth and one-third of overall earnings inequality in the seven Latin American countries reviewed (table 3). Brazil had the highest (most unequal) estimate at 34 percent, and Colombia the lowest at 20 percent. When analyzing household income instead of individual earnings, inequality of opportunity accounted for a larger portion of overall inequality, with conservative estimates ranging from 20 percent in Mexico to 37 percent in Guatemala. When household consumption per capita was used, the share of total inequality was even higher, ranging from one-quarter in Colombia and Mexico to one-half of overall inequality in Guatemala.

It is interesting to note that high outcome inequality does not always imply high shares of inequality of opportunity. The most unequal countries are not necessarily those in which the importance of opportunity in explaining inequality is high. Inequality of opportunity, measured in this way, picks up something quite different from outcome inequality. There may be a positive correlation between inequality of outcomes and of opportunity shares, and, indeed, the mechanisms of intertemporal reproduction of inequality would lead one to expect this. But they are different concepts.

Table 3 Share of Inequality of Economic Opportunity
(percent)

<i>Indicator</i>	<i>Brazil</i>	<i>Colom- bia</i>	<i>Ecuador</i>	<i>Guate- mala</i>	<i>Mexico</i>	<i>Pana- ma</i>	<i>Peru</i>
<i>Earnings</i>							
Overall inequality	61	60	63	78	75	57	67
Share of inequality of opportunity	34	20	25	29	23	25	21
<i>Per capita income</i>							
Overall inequality	69	55	41	61	71	63	55
Share of inequality of opportunity	32	25	29	37	20	35	29
<i>Per capita consumption</i>							
Overall inequality	—	44	35	40	63	38	35
Share of inequality of opportunity	—	26	34	52	26	42	34

Source: Authors' calculations based on household surveys.

Note: — = Not available. Inequality measured by the mean log deviation. Inequality of opportunity shares are nonparametric estimates.

Specific circumstances may have different roles in generating inequality of opportunity. Across all indicators of economic welfare analyzed here, the circumstances with the greatest impact on generating inequality of economic opportunity were family background variables: education levels of both parents (with the mother's having a stronger effect) and occupation of the father. Ethnicity and birthplace had smaller effects, but they were still sizable, particularly in Guatemala and Panama. Indeed, the importance of an indigenous background in Guatemala and Panama helps account for the overall higher levels of inequality of opportunity in those countries.

Another way to consider the inequality of economic opportunity is to determine the characteristics of the most-disadvantaged groups. Using the same circumstance variables as above, *opportunity profiles* identify the most-disadvantaged "types"—groups of the population characterized by exogenous circumstances—in each country for whom inequality of opportunity relegated them to the bottom of the socioeconomic ladder. For example, it is found that the poorest 10 percent of the population in Brazil comprises groups that are black or mixed race, born in the north or northeast, with parents who worked in agriculture and had low education. In all countries except Colombia, ethnic minorities constitute more than two-thirds of the portion of the poorest 10 percent (table 4). This would show that ethnicity is one key circumstance, exogenous to the

Table 4 What Circumstances Characterize the most Economically Disadvantaged Groups?
(Percentage of individuals in circumstance groups that are in the bottom 10 percent of the distribution of consumption)

	Brazil	Colom- bia	Ecuador	Guate- mala	Mexico	Pana- ma	Peru
Member of ethnic minority	100	33	61	100	65	75	100
Father without education	89	77	87	99	72	58	100
Mother without education	91	96	98	99	94	93	99
Father's occupation in agriculture	88	—	93	100	94	84	—

Source: Authors' calculations based on samples of individuals ages 30 to 49 from the following household surveys: Brazilian PNAD 1996, Colombian ECV 2003, Ecuadorian ECV 2006, Guatemalan ENCOVI 2000, Mexican MxFLS 2002, Panamanian ENV 2003, and Peruvian ENAHO 2001.

Note: — = Not available. In the case of Brazil, consumption was replaced by income, because data on consumption were not available.

individual, that defines his belonging to the group with the poorest start. Family background was a second key variable to characterize individuals in the poorest decile. Specifically, in all countries, all people in the poorest decile had an uneducated mother. In countries with relevant data, more than 80 percent of the most disadvantaged individuals have their father in agriculture activities. And finally, birthplace: all individuals of the poorest decile in Brazil were born in the North or Northeast; in Panama, 76 percent were born in rural areas; in Guatemala, 100 percent were born in the north and northeast; in Mexico, 65 percent were born in the south center and the south. Interestingly, when analyzing the richest 10 percent, there was no clear identification with birthplace. The circumstances most important in ranking groups at the very bottom of the opportunity scale are not necessarily the same as those accounting for the largest shares of inequality in the overall decomposition. In particular, race and ethnicity are more important determinants of severe opportunity deprivation than of opportunity shares of overall inequality. Family background variables, like parental education and occupation, are salient for both.

Inequality of Opportunity in Educational Achievement

Inequality of opportunity can also be reflected in educational outcomes. The book presents the results of a comparative assessment of inequality of opportunity in educational achievement in five Latin American countries,

as well as in nine North American and European countries. Education outcome data come from the internationally comparable exams administered by the Program for International Student Assessment (PISA). Total inequality in educational achievement was decomposed into a component resulting from a set of circumstances and a second component encompassing individual efforts, talent, and luck, using the same technique as for economic inequality. The predetermined circumstances used in all countries were gender, mother's and father's education, father's occupation, and school location. Information on race or ethnicity was not available for all countries in the education sample, and hence could not be included.

Inequality of opportunity was estimated to account for between 14 percent and 28 percent of overall inequality in reading achievement in Latin America, and for between 15 percent and 29 percent in mathematics achievement, as a conservative estimate. As with economic outcomes, the circumstances that had the largest impact on opportunity shares were family background variables, notably mother's education and father's occupation. School location was particularly important in Mexico, revealing large geographic inequalities in educational achievement in that country. The impact of gender on opportunity shares of educational achievement inequality was found to be limited.

Compared with Organisation for Economic Co-operation and Development countries, the median Latin American country seems to be more opportunity unequal with regard to educational achievement, with about 20 percent of total inequality accounted for by circumstances. Meanwhile, in the typical industrial country, 15 percent of inequality is associated with the same circumstances. Because total outcome inequalities were also higher in Latin America, this pattern is even more pronounced in levels, with Argentina and Peru recording the highest estimates of inequality of educational opportunity.

Opportunity profiles of the circumstance types with the least and most advantages in educational opportunity reveal that for all countries, the most-disadvantaged groups tended to include a disproportionate share of children of agricultural workers and parents with little or no schooling (table 4). In Chile and Mexico, most disadvantaged individuals are studying in rural areas, whereas in Argentina and Brazil, a significant proportion are found in urban areas. Boys are a majority of those in the most-disadvantaged groups for reading. It is interesting to note that girls dominate among the most advantaged in both reading and mathematics achievement, as well as among the most disadvantaged for mathematics.

The influence of parental background variables in educational achievement as well as in economic outcomes reveals marked problems of intergenerational transmission of poverty—less parental education not only shapes opportunities and explains an important fraction of income inequality, but also characterizes groups at the bottom of the educational and economic ladders.

*Table 5 What Characterizes Students in the Bottom 10 Percent of Reading Performance Distribution?
(Percentage of individuals in circumstance groups that are in the bottom 10 percent of the distribution of reading scores)*

<i>Circumstance</i>	<i>Argentina</i>	<i>Brazil</i>	<i>Chile</i>	<i>Mexico</i>	<i>Peru</i>
Male	85	90	68	96	67
Father without education	62	66	61	86	93
Mother without education	75	80	76	87	96
Father agricultural or fishery worker	77	74	60	71	95
School located in a village or small town	42	28	61	94	-

Source: Authors' compilation using data from the PISA 2000 and 2001 surveys.

Note: Groups according to exogenous circumstances (gender, family background, school location) are defined and ordered according to mean scores; groups that account for the bottom decile of performance are kept; percentages indicate characteristics of those individuals.

Final Remarks

Equality of opportunity is about leveling the playing field for everyone from the beginning of their lives. In a region characterized by pervasive and untamed inequality of income, and where groups of the population remain excluded from socioeconomic progress, a shift in the debate toward equality of opportunities promises to be a better guide for public policy. It is a shift in the debate and in the attention of policy makers, who recognize that much more progress can be made if countries confer a sense of urgency to the need to give the same chances to all. To do that, measuring inequality of opportunity—better, deeper, and more systematically—is critical. This book proposes tools to advance this agenda. With the Human Opportunity Index, the level and distribution of basic opportunities among children can be better measured and tracked over time. Similarly, progress in opportunity profiles of the most-disadvantaged groups can be assessed and followed in each country, as well as the importance of inequality of opportunities' share in total inequality. Inequality of opportunity appears at different moments in life, but here, the intent has been to provide a measure for estimating basic opportunities for children, and for gauging the importance of inequality of opportunities to educational outcomes among youth and economic outcomes among adults. For equality of opportunity to prevail, we posit that a social consensus confirms that exogenous circumstances should not have a role. However, birthplace matters in Latin America; it determines a child's access to clean

water, sanitation, and electricity. Parental education matters; it explains access to early secondary schooling and access to water and sanitation, and is strongly related to economic and educational achievement. Parental socioeconomic status is much more strongly linked to that of children than what many would perceive as just. Ethnicity matters, and seems to be a key factor in economic and educational outcomes, particularly as it characterizes the most-disadvantaged groups. These strong, undesired associations result in a complex, challenging, and urgent agenda.

This book reports progress, although heterogeneous across countries and across opportunities. The Human Opportunity Index for children has increased since 1995 for all basic opportunities (education, water, electricity, sanitation), mostly because of increases in average access, but also because, in several instances, increases in opportunities were implemented paying particular attention to disadvantaged groups, further reducing inequality of opportunity. But universality of these basic opportunities should be a target for the near future, so the policy challenge is big. And for inequality of opportunity in general, as long as birthplace, ethnicity, and family background strongly influence opportunities and individual outcomes, the Latin American population will still strongly believe that the playing field is, in fact, not level.

References

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