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Exiting
BELINDIA?

LESSON FROM THE RECENT DECLINE
IN INCOME INEQUALITY IN BRAZIL

Luis F. Lopez-Calva and Sonia Rocha

Poverty, Gender, and Equity Unit
Latin America and the Caribbean
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Foreword

I n 1974, the Brazilian economist, Edmar Lisboa Bacha, wrote "O Rei Da *Belindia*: Uma Fabula para Tecnocratas".[1] Brazil was then, as has been the case historically, one of the countries with the highest income inequality in the world. Belindia was the name of the mythical kingdom where one could find standards of living comparable to those of affluent Belgium, alongside levels of deprivation similar to those observed in the poorest regions of India. The fable tells us that that measuring progress solely by looking at average income growth –without taking into account the initial distribution– paints an incomplete picture. A better way to assess changes in income should consider higher weights for those who were initially lagging behind. The implicit criticism in Bacha's widely cited story is clear: growth is not always enough for social advancement. From a normative perspective, it should be accompanied by reductions in poverty and inequality.

Brazilian society seems to have internalized this message. Under a democratic mandate, the government has responded by facilitating growth while taking important steps to reduce inequalities in many dimensions. The recent improvement in the distribution of income in Brazil is fundamentally a result of good policy. Macroeconomic stability and well-tuned, growth-targeted economic policies have created an enabling environment for inequality reduction. At the microeconomic level, policies have matched, if not surpassed, the successes of macro policy in setting the ground for a sustained decrease in inequality. The government's policies to improve educational coverage have played a key role in reducing wage differentials that,

1. Jornal Opinião, São Paulo, 1974 .

in turn, have been largely responsible for a more equitable income distribution. Social policy, through the creation and expansion of social security and social assistance programs, has also played a positive redistributive role. Active labor market policies, which could be thought of as distorting, have been accompanied by an expansion of formal employment and a steep decline in informality, establishing an interesting case for further analysis.

The implementation of sound policies has indeed paid off. Social interventions have followed long-standing policy principles, transcending short-term political objectives. However, the challenges remain significant. Inequality is still relatively high and new dimensions to be tackled may arise. For instance, continuing to improve service *quality*, in addition to coverage, is one of the next critical objectives in sectors such as education and health. Understanding and addressing the causes of exclusion of specific populations, and moving towards a fiscally sustainable and effective social protection system are fundamental conditions for the achievements to be sustained and deepened. Enhancing the productivity of the poor and providing opportunities for economic inclusion for women and vulnerable populations are also important priorities for the long term development agenda. The strategy announced by President Rouseff, *Brasil Sem Miseria*, is an important step in that direction.

The World Bank offers this overview of the Brazilian experience as a vehicle of knowledge dissemination. The inequality fable aforementioned may very well apply to the Latin America and Caribbean region as a whole. The aim is that lessons drawn from experiences like this one can contribute to pave the road out of *Belindia*.

Makhtar Diop
Country Director for Brazil
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Executive Summary

After decades of persistent disparities, inequality in Brazil has fallen steadily over the last fifteen years. This robust rate of decline has surpassed the pace of the Latin American region as a whole, and is taking place as inequality rises in several rapid-growth emerging economies in other regions. This document examines the recent trend in income inequality in Brazil, its key policy drivers and some of the challenges ahead. It aims at capturing some of the lessons behind Brazil's experience to share with other economies in the region and beyond.

Inequality in Brazil - Past and Present

Brazil has long-been known as an unequal country. Inequalities have been manifest in disparities in access to basic services, with concomitant outcomes in health, education, and other measures of wellbeing. They are also clearly evident in differences in income -- the principal theme of this report.

Income inequality in 1960, already high by international standards as indicated by a Gini coefficient of 0.504, continued to increase in the following decades. It rose during Brazil's period of economic expansion in the 1970s, as well as in the low-growth, high-inflation years of the 1980s (the Gini rose from 0.561 in 1970 to 0.592 in 1980; and reached 0.607 in 1990, PNAD). High levels of inequality persisted in the mid 1990s, even as Brazil achieved monetary stabilization and attained middle-income status. The higher average income of these years (US$4,800 annual per capita income) concealed a profound inequality: the poorest 50 percent of the population accounted for the same share of total income as the richest one percent (around 13 percent).

Over the last fifteen years, however, income inequality in Brazil has declined, reaching a Gini coefficient of 0.537 in 2009. Although still high by regional and international standards, inequality in the country is on the path to converge to the regional average (0.501). Declining inequality is not unique to Brazil, yet inequality there has declined at a faster pace than elsewhere in Latin America: after 1997, inequality declined by 0.8 percent per year; while from 2001 on, the drop accelerated to 1.07 percent per year, well above the regional pace of 0.63 percent.

Reducing inequality matters in a normative sense. Yet, declining inequality has also played an instrumental role in the mediation of the relationship between economic growth and poverty, by enhancing the poverty-reduction impact of growth. Decomposing changes in poverty between 2001-2009, we assess the relative importance of the improvement in income distribution vis-à-vis that of economic growth to the reduction in poverty. The estimates suggest that the decline in inequality has been crucial, accounting for 45 percent of the total poverty reduction during that period, and an even higher share in the case of extreme poverty (52 percent and 68 percent of total poverty changes at US$2.5/day and US$1.25/day, respectively) (Figure 2).

A common tool to illustrate the pro-poor quality of growth is the growth incidence curve (GIC) that shows the income change in real terms by income group. Displaying the income growth rate between two points in time at each percentile of the distribution, the downward sloping GICs indicate that poorer groups benefited more from growth than the richer ones (Figure 3). The curves reinforce the evidence provided by a falling Gini coefficient: economic growth has had a decisively progressive impact in Brazil over the last decade or more.
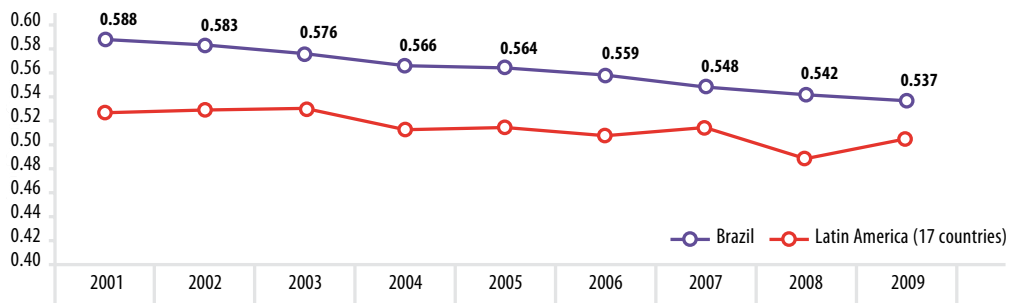
But, what do we know about the sources of inequality decline? The following sections review the evidence.

Explaining the decline

From an analytical perspective, the classic Tinbergen's observations on the tension between educational upgrading and technological change may provide important insights into Brazil's declining inequality. As in Latin America as a whole, Brazil's declining earnings gap between high and low-skilled workers is associated with the educational improvements that changed the profile of the labor force, making relatively unskilled labor scarcer. In the region, the educational upgrading allowed a skills 'catch up' vis-à-vis the impact of skill-biased technological change that took place after structural reforms in the 1990s.[2]
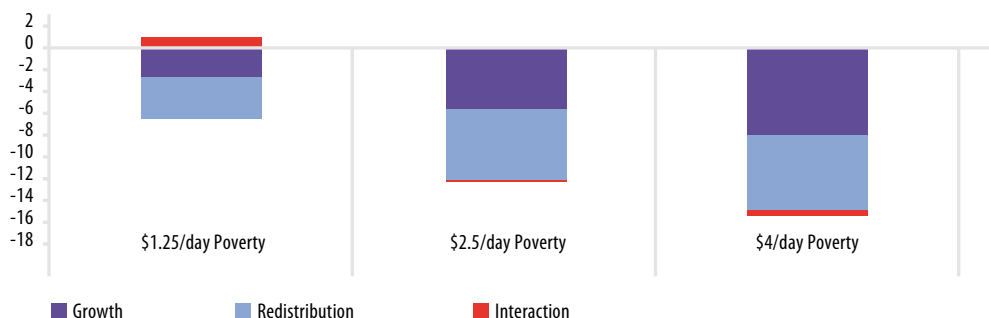
To analyze the change in inequality in Brazil, the decomposition exercises have focused on the two main sources of income, namely, income from labor; and income from transfers.[3] Income from labor accounted for the largest share of changes between 1997 and 2009; representing by

Figure 1: Gini Coefficient in Brazil and Latin America (17 countries)
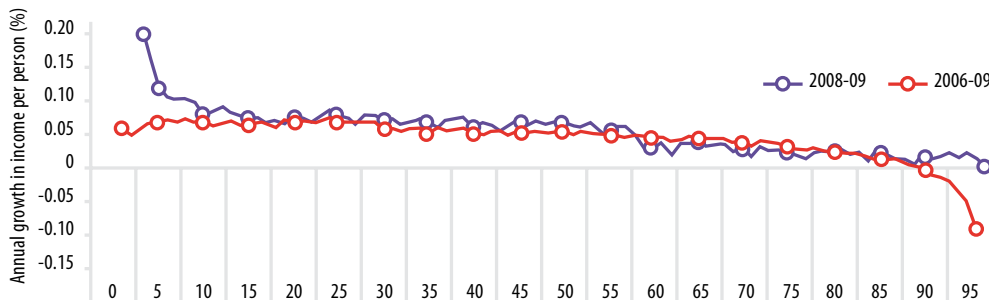
Figure 2: Contributions of Growth and Inequality to Poverty Reduction in Brazil, 2001-2009

Figure 3: Growth Incidence Curves for Brazil, 2006-2009 and 2008-2009

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some estimates more than two-thirds of the reduction in income inequality. Within labor income, the expansion in *education* and the resulting wage disparity reduction played a predominant role in the change in inequality. On the other hand, although income from non-labor sources accounts for a relatively low-share of per capita household income, it has had a significant impact on the reduction of income inequalities. The rest of this section will address the roles of education policy, government transfers, changes in macroeconomics and demographics, and the minimum wage, in reducing inequality over the last fifteen years, through their impact on labor and non-labor income.

Income from labor, accounting for 76.2 percent of Brazilians households' income in 2009, has been the main observed determinant of decreasing inequality, both in periods of economic buoyancy as well as during slumps. Although low rates of economic growth between 1997 and 2003 led to declining incomes, the negative impact on workers in the bottom strata was less drastic than on workers higher up the distribution scale (partly due to the fact that wages at the lower end of the spectrum were protected by reforms to the minimum wage; between 1997 and 2009 the value of the minimum wage increased by 70 percent). Workers in the bottom income groups experienced real pay increases between 1997 and 2003 while the groups at the top faced losses, equalizing incomes. When economic growth resumed and incomes recovered from 2004 on, the positive distributive trend was maintained. The higher income growth rates in the lower income percentiles - enabling continued convergence of labor incomes across earnings groups - have been strongly associated with educational improvements.

Brazil's historical inequality in labor income derived in large part from inequalities in education. The concerted policy reforms from the mid 1990s altered the state of affairs, leading to education improvements that, in turn, were largely responsible for a more equitable income distribution. The reforms, and in particular *Bolsa Família* contributed to the equalization of educational attainment, including the reduction of intergenerational inequality: in 1993, the child of a father with no formal education would complete on average 4 years of schooling; currently, Brazilian students complete between 9 and 11 years of schooling, regardless of their parents' education. While educational developments initially benefited everyone, the rise in average years of schooling (from 6.4 in 1997 to 8.2 in 2007) progressively led to a decline in educational inequality. As average education levels rose (by 2009 workers with 11+ years of schooling represented over 40 percent of employed people, see Figure 4) the premium commanded in the labor market by an additional year of schooling began to fall. The schooling profile of the labor force changed, making relatively unskilled labor scarcer, thereby driving down the wage premium: average returns to education fell from 14.5 percent in 1997 to 12.2 percent in 2005 (Barros et al., 2010). The reduction in education inequality and the closing of wage differentials by workers' schooling levels has been estimated to account for over 50 percent of the decline in income inequality.

Figure 4: Percentage Share of Workers by Years of Schooling, 1996-2009
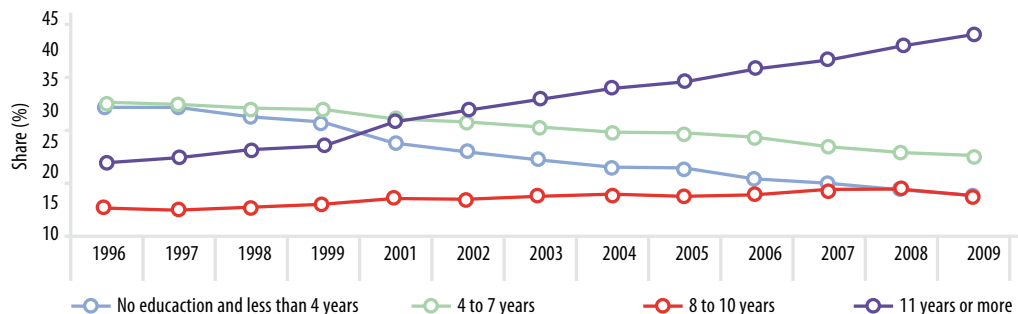
Source: IBGE/PNAD (excluding the North Region rural area).

The importance of declining returns to explain the change in inequality is illustrated in Figure 5. Decomposing labor income into the quantity effect (the distribution of education and experience), the price effect (returns to education and experience), and unobservable characteristics, we find that from 2001 on, a decline in returns to skills (price) drove a reduction in labor income inequalities.

Other factors, including macroeconomic and institutional changes, also contributed to the decline in income inequality. Macroeconomic stability, following the introduction of the Real Plan in 1994, became an enabling environment for inequality reduction in Brazil - including through the reduction of the "inflation tax", which had harmed less wealthy individuals disproportionately. Demographic changes, including lower fertility rates in the lower income strata, also had positive redistributive effects.

Turning to the non-labor sources of income, social security and social assistance programs have played an increasingly important role in the reduction of inequality. Although non-labor sources still account for a relatively low-share of households' income, social policy reforms since 1988 have led to expanded coverage and increases in the value of social security and cash benefits paid out. By some estimates, the increase in contributory and noncontributory government transfers was responsible for more than 40 percent of the reduction of the Gini index during the 2001-2007 period. Not all transfers have had the same effect. Targeted transfers, indexed to the minimum wage such as the *Beneficio de Prestacao Continuada* (BPC) have shown a positive redistributive effect, while social security programs that are not targeted to the poor have shown to be regressive (i.e. the Public Servants Pensions System, RPSP). The impact of federal programs also varies according to their different scope. For instance, Bolsa Família accounted for a much higher share of the reduction in Brazil's Gini coefficient between 1997 and 2009 than *Beneficio de Prestação Continuada*, in spite of the lower amount of the former's transfers.[4]

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Figure 5: Decomposition of the Labor Income Gini Coefficient in Brazil
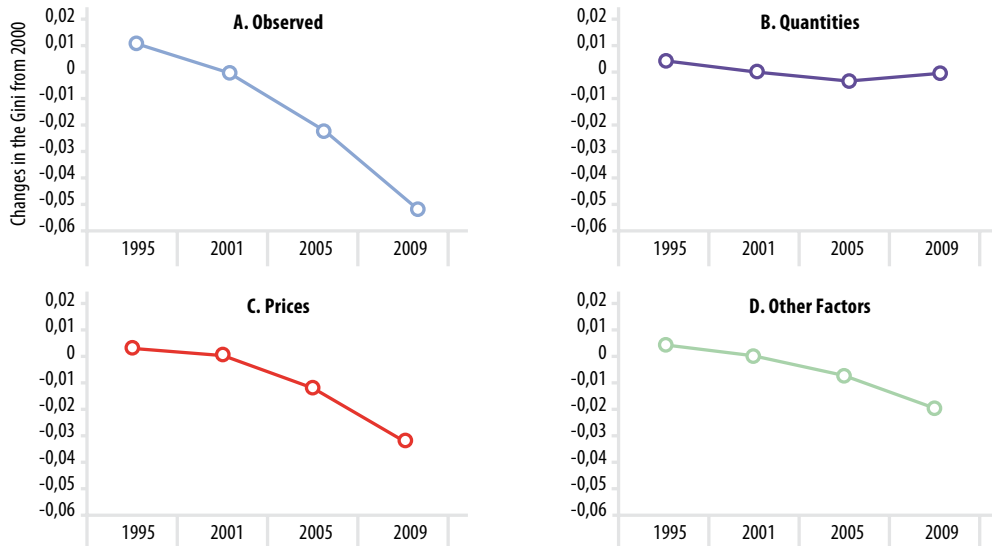
On the other hand, the role of the minimum wage as a driver of declining income inequality is yet to be analyzed in its entirety. Increases in the minimum wage since the mid 1990s appear to have had a positive effect on inequality. In addition to its redistributive impact as an index for social security programs, the wage increases have acted as a signal for salary renegotiations at the lower end of the earnings spectrum, with suggested positive impacts on distribution. Nevertheless, no study to date has convincingly established the impact of the rise in the minimum wage on labor market distortions. Alternatively, whether the wage policy is the most efficient path to reduce income disparities - for instance in comparison to allocating its resources to social programs - remains a matter of debate.

Looking forward

Sustained inequality reduction without compromising efficiency and growth represents a key challenge for Brazil. While the country has made strides in reducing income inequality over the last fifteen years, the future pace of transformation could be compromised by skills shortages. In addition to consolidating the stable macroeconomic environment, the following avenues represent potential sources for sustained inequality reduction in the future.

In terms of education, efforts to date have focused on *quantity*, yet equalizing the *quality* of education across income groups represents an important challenge. Further reform of the education system is necessary to ensure that income from labor continues to evolve progressively.

Addressing the fiscal sphere from an inequality viewpoint also constitutes a key challenge. Brazil's heavy reliance on indirect taxes burdens the poor disproportionately, while the current personal income tax framework has no impact on income inequality. Concurrently, delinking social transfers from the minimum wage can help minimize potential distortions in the labor market and free up resources to invest in more efficient pro-poor mechanisms, potentially strengthening more ambitious strategies such as *Brasil sem miseria*.

In terms of social programs, effectively focusing on the most vulnerable groups (the *distribution* of services) could improve the equitable distribution of basic services provision, creating a virtuous cycle between greater equality of income and greater equality of opportunities. Finally, ensuring that the composition of future economic growth demands high-skilled labor will also contribute to sustain inequality declines.

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2. See World Bank (2011) and Lopez-Calva, L.F. & N. Lustig (eds.) (2010) Declining Inequality in Latin America: a Decade of Progress? Washington, DC: Brookings Institution.
World Bank (2011) "A Break with History: Fifteen Years of Inequality Reduction in Latin America", LAC Poverty and Labor Brief.
3. For specific references see the complete report, Lopez-Calva, L.F. & S. Rocha (2011) "Declining Income Inequality in Brazil: Learning and Looking Forward", The World Bank.
4. Bolsa Família pays smaller benefits but reaches more beneficiaries, with a cost of transfers 35 percent lower than BPC expenditures.

Resumo Executivo

Depois de décadas de disparidades persistentes, a desigualdade no Brasil tem caído constantemente nos últimos 15 anos. A robusta taxa de declínio, que foi mais rápida do que no restante da América Latina como um todo, é contrastante com outras regiões do mundo, onde a desigualdade aumenta rapidamente. Este documento analisa a tendência recente na desigualdade de renda no Brasil, seus principais motivadores e alguns dos desafios futuros. O seu objetivo é a captura de algumas das lições por detrás da experiência do Brasil para compartilhar com outras economias da região e além.

Desigualdade no Brasil - Passado e Presente

Há muito que o Brasil é conhecido como um país desigual. As desigualdades têm se manifestado nas disparidades no acesso a serviços básico, com resultados concomitantes em saúde, educação e outras medidas de bem-estar. Estas desigualdades também são evidentes nas diferenças em renda, o principal tema deste relatório.

A desigualdade de renda em 1960 já era alta para os padrões internacionais, como mostra o coeficiente Gini de 0.504, e continuou a crescer nas décadas seguintes. Ela aumentou durante o período de expansão econômica do Brasil nos anos 70, assim como nos anos de baixo crescimento e alta inflação na década de 80 (o Gini subiu de 0.561 em 1970 para 0.592 em 1980, chegando a 0.607 em 1990, PNAD). Os altos níveis de desigualdade continuaram em meados dos anos 90, mesmo quando o Brasil alcançou a estabilidade monetária e o status de país de média renda. A maior média de renda destes anos (renda per capita anual de US$ 4.800) esconde uma profunda desigualdade: os 50% mais

pobres da população detinha a mesma parcela da renda total que o 1% mais rico (cerca de 13%). Contudo, nos últimos 15 anos a desigualdade de renda no Brasil caiu, atingindo um coeficiente Gini de 0.537 em 2009. Apesar de ainda ser alta pelos padrões regionais e internacionais, a desigualdade no país está a caminho de convergir com a média regional (0.501). A redução da desigualdade não é exclusiva do Brasil, embora tenha acontecido a um ritmo mais acelerado do que em qualquer lugar da América Latina: depois de 1997, a desigualdade caiu em 0,8% ao ano, enquanto a partir de 2001 a queda acelerou para 1,07% ao ano, bem acima do ritmo regional de 0,63%.

A redução da desigualdade é importante no sentido normativo. A redução da desigualdade também tem um papel instrumental na mediação da relação entre crescimento econômico e pobreza, aumentando o impacto que o crescimento tem sobre a redução da pobreza. Decompondo as mudanças na pobreza entre 2001 e 2009, nós avaliamos a importância relativa da melhoria na distribuição de renda em comparação ao crescimento econômico para a redução na pobreza. As estimativas sugerem que a redução da desigualdade tem sido crucial, sendo responsável por 45% da redução total da pobreza naquele período e uma parcela até maior no caso de pobreza extrema (52% e 68% das mudanças totais na pobreza em US$ 2,5/dia e US$ 1,25/dia, respectivamente) (Figura 2).
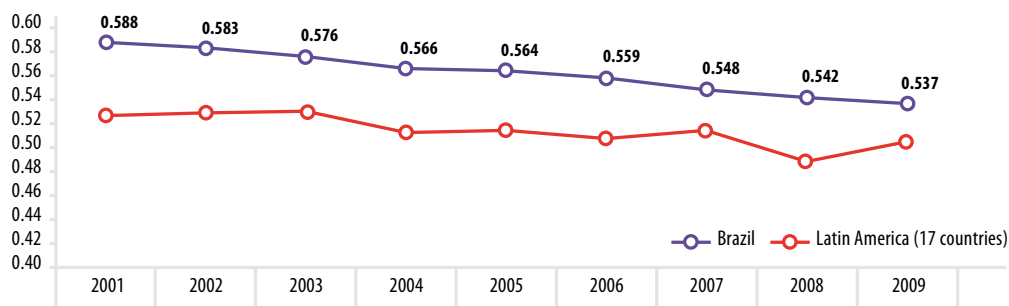
Uma ferramenta comum para ilustrar a qualidade do crescimento em prol dos pobres é a curva de incidência de crescimento (CIC) que mostra a mudança na renda em termos reais, por faixa de renda. Mostrando a taxa de crescimento de renda entre dois pontos no tempo em cada percentil de distribuição, a curva descendente das CIC indica que os grupos mais pobres se beneficiaram mais do crescimento do que os ricos (Figura 3). As curvas reforçam a evidência apresentada por um coeficiente Gini descendente: o crescimento econômico tem exercido um impacto progressivo decisivo no Brasil, na última década ou mais.

Mas, o que sabemos sobre as fontes do declínio da desigualdade? As próximas seções analisam a evidência.

Explicando o declínio

De um ponto de vista analítico, as observações clássicas de Tinbergen sobre a tensão entre a melhoria em educação e a mudança tecnológica podem oferecer elucidações importantes sobre a redução da desigualdade no Brasil. Assim como na América Latina como um todo, a reduzida lacuna de ganhos entre os trabalhadores bem qualificados e os pouco qualificados é associada às melhorias na educação, que mudaram o perfil da força de trabalho, tornando mais escassa a mão de obra não especializada. Na região, a melhoria nos níveis de educação permitiu um 'reencontro' das capacidades, diante do impacto da mudança tecnológica com desvio de capacidades, que aconteceu depois das reformas estruturais nos anos 90.[2]

Figura 1: Coeficiente Gini no Brasil e na América Latina (17 países)

Legenda: Brazil, Latin America (17 countries)

Valores Brasil: 0.588 (2001), 0.583 (2002), 0.576 (2003), 0.566 (2004), 0.564 (2005), 0.559 (2006), 0.548 (2007), 0.542 (2008), 0.537 (2009)

Fonte: Cálculos próprias com base nos dados do SEDCLA (CEDLAS e Banco Mundial).

Figura 2: Contribuições do Crescimento e Desigualdade em relação à Redução da Pobreza no Brasil, 2001 – 2009

US$1.25/dia Pobreza — US$ 2.5/dia Pobreza — US$ 4/dia Pobreza

Legenda: Crescimento, Redistribuição, Interação
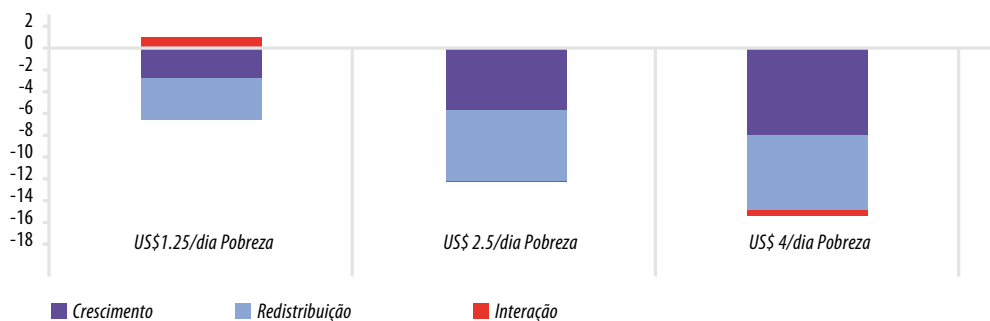
Fonte: Cálculos próprios com base nos dados do SEDCLA (CEDLAS e Banco Mundial). A decomposição segue Datt e Ravallion (1992).

Figura 3: Curvas de Incidência de Crescimento para o Brasil, 2006 – 2009 e 2008 - 2009

Eixo Y: Crescimento anual em renda por pessoa (%)

Legenda: 2008-09, 2006-09
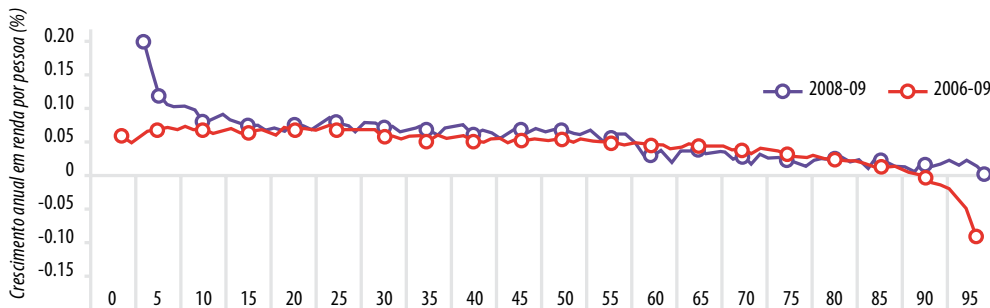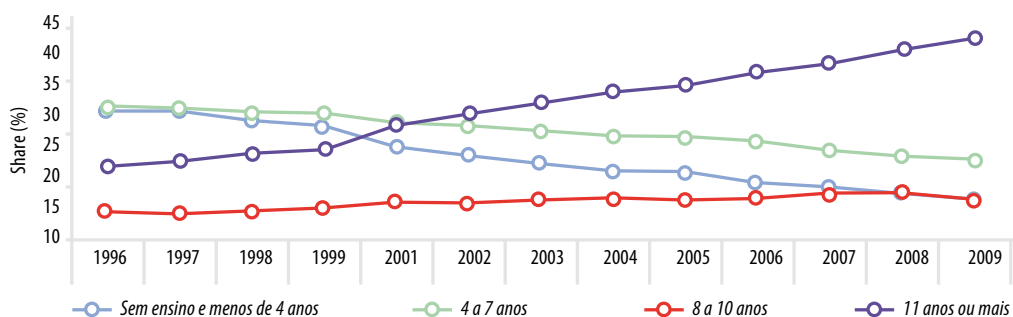
Fonte: Banco Mundial (2011).

Para analisar a mudança na desigualdade no Brasil, os exercícios de decomposição se concentram nas duas principais fontes de renda, a saber, renda do trabalho e renda de transferências.[3] A renda do trabalho foi responsável pela maior parte das mudanças entre 1997 e 2009. Segundo algumas estimativas, ela representa mais de dois terços da redução na desigualdade de renda. Na renda de trabalho, a expansão na educação e os resultados na redução da desigualdade salarial desempenharam um papel predominante na mudança da desigualdade. Por outro lado, apesar de a renda de fontes que não sejam de trabalho ser responsável por uma parcela relativamente pequena da renda doméstica per capita, ela teve um impacto significativo na redução das desigualdades de renda. O restante desta seção abordará os papéis da política educacional, das transferências do governo, mudanças macroeconômicas e demográficas, além do salário mínimo, para reduzir a desigualdade nos últimos 15 anos, através de seu impacto na renda de trabalho e naquelas não relacionadas ao trabalho.

A renda do trabalho, que foi responsável por 76,2% da renda domiciliar dos brasileiros em 2009, é a principal determinante observada na redução da desigualdade, tanto em períodos de flutuação econômica quanto durante períodos de crise. Apesar das baixas taxas de crescimento econômico entre 1997 e 2003, que levaram a um declínio na renda, o impacto negativo sobre os trabalhadores nos estratos inferiores foi menos drástico do que nos trabalhadores na parte mais alta da escala de distribuição (devido, em parte, ao fato que os salários na ponta inferior do espectro foram protegidos por reformas no salário mínimo; entre 1997 e 2009, o valor do salário mínimo aumentou em 70%). Os trabalhadores nos grupos de renda inferiores tiveram aumentos reais no pagamento entre 1997 e 2003, enquanto os grupos no topo tiveram perdas, equalizando as rendas. Quando houve a retomada do crescimento econômico e as rendas se recuperaram a partir de 2004, a tendência distributiva positiva se manteve. As maiores taxas de crescimento de renda nos percentis inferiores de renda – que permitiram a constante convergência das rendas de trabalho entre as faixas de ganho – são fortemente associadas às melhorias na educação.

A desigualdade histórica que o Brasil apresenta na renda de trabalho, se origina em grande parte das desigualdades na educação. As reformas políticas harmonizadas, de meados dos anos 90, mudaram o estado das coisas, levando a melhorias na educação que, por sua vez, são em grande parte responsáveis por uma distribuição de renda mais igualitária. As reformas, especialmente o Bolsa Família, contribuíram com a equalização dos resultados educacionais, inclusive a redução da desigualdade intergeracional: em 1993, o filho de um pai sem educação formal completaria, em média, 4 anos de ensino; atualmente, os estudantes brasileiros completam de 9 a 11 anos de ensino, independentemente do escolaridade dos pais. Embora os avanços educacionais em princípio tenham beneficiado a todos, o aumento nos anos médios de educação (de 6.4 em 1997 a 8.2 em 2007), levou progressivamente a um declínio na desigualdade no ensino. Como os níveis médios de ensino aumentaram (em 2009, os trabalhadores com 11 anos e mais de ensino representavam 40% das pessoas empregadas, veja a Figura 4) o prêmio no mercado de trabalho relacionado a um ano de ensino começou a cair. O perfil de ensino da força de trabalho mudou,

tornando a mão de obra relativamente não qualificada mais escassa, assim reduzindo o prêmio no salário: o retorno médio para educação caiu de 14,5% em 1997 para 12,2% em 2005 (Barros et al., 2010). Estima-se que a redução na desigualdade em ensino e o estreitamento dos diferenciais de salário por nível de ensino dos trabalhadores sejam responsáveis por mais de 50% na queda da desigualdade de renda.

Figura 4: Parcela Percentual por Anos de Escolaridade, 1996-2009

Fonte: IBGE/PNAD (excluindo a área rural da Região Norte).

Figura 5: Decomposição do Coeficiente Gini da Renda de Trabalho no Brasil
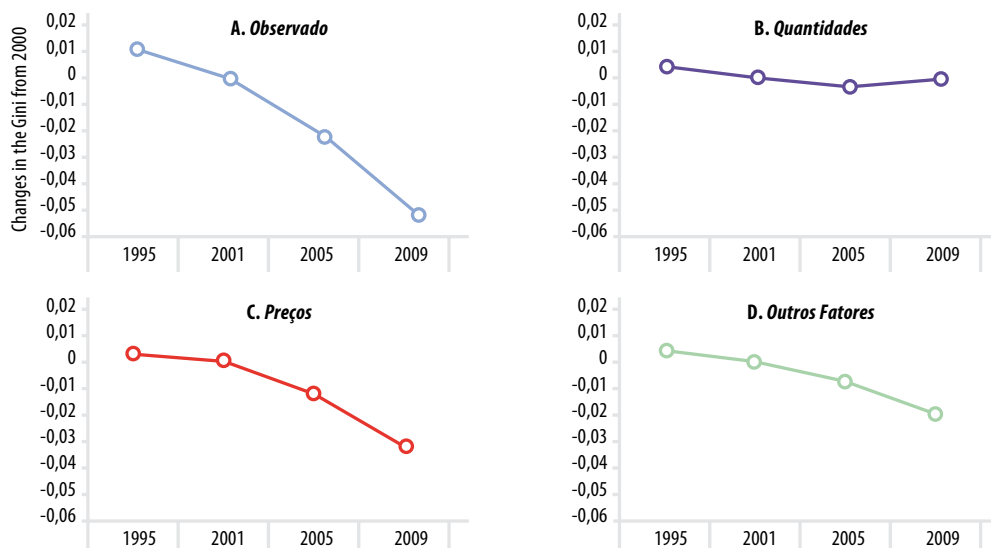
Fonte: Banco Mundial (2011) usando dados do SEDCLA (CEDLAS e Banco Mundial). A renda de trabalho se baseia em salários individuais por hora. Decomposição segundo Juhn, Murphy & Pierce (1993), e Foguel & Azevedo (2007).

A Figura 5 mostra a importância dos retornos decrescentes para explicar a mudança na desigualdade. Decompondo a renda de trabalho no efeito quantidade (a distribuição de ensino e experiência), o efeito do preço (retornos para educação e experiência) e as características que não podem ser observadas, nós observamos que de 2001 em diante a redução nos retornos de habilidades (preço) levou a uma redução nas desigualdades da renda do trabalho.

Outros fatores, inclusive as mudanças macroeconômicas e institucionais, também contribuíram para a queda na desigualdade de renda. A estabilidade macroeconômica que seguiu à introdução do Plano Real em 1994 se tornou um ambiente propício para a redução da desigualdade no Brasil – inclusive por meio da redução da "taxa de inflação", que prejudicou as pessoas ricas de uma forma desproporcionalmente menor. As mudanças demográficas, inclusive as taxas de fertilidade mais baixas no estrato de renda mais baixo, também teve efeitos redistributivos positivos.

Com relação às fontes de renda que não são do trabalho, os programas de seguridade e assistência sociais têm um papel cada vez mais importante na redução da desigualdade. Apesar de as fontes não relacionadas ao trabalho ainda representarem uma parcela relativamente mais baixa da renda do domicílio, as reformas de política social desde 1988 levaram a uma maior cobertura e aumentos no valor da seguridade social e dos benefícios pagos em dinheiro. Segundo algumas estimativas, o aumento nas transferências contributárias e não contributárias foi responsável por mais de 40% da redução do índice Gini de 2001 a 2007. Nem todas as transferências tiveram o mesmo efeito. As transferências direcionadas, indexadas ao salário mínimo, como o Benefício de Prestação Continuada (BPC), mostraram um efeito redistributivo positivo, enquanto os programas de seguridade social que não são direcionados aos pobres mostraram ser regressivos (ou seja, o Regime Previdenciário dos Servidores Públicos, RPSP). O impacto dos programas federais também varia segundo seu escopo. Por exemplo, o Bolsa Família foi responsável por uma parcela muito maior da redução do coeficiente Gini entre 1997 e 2009 do que o Benefício de Prestação Continuada, apesar do valor mais baixo das transferências do primeiro.[4]

Por outro lado, o papel do salário mínimo como uma força motriz da queda na desigualdade de renda ainda deve ser analisado na íntegra. Os aumentos no salário mínimo desde meados dos anos 90 parecem ter tido um efeito positivo na desigualdade. Além de seu impacto redistributivo como um índice para os programas de seguridade social, os aumentos no salário serviram de sinal para as negociações salariais do espectro mais baixo dos ganhos, sugerindo impactos positivos na distribuição. No entanto, até hoje nenhum estudo estabeleceu, de forma convincente, o impacto do aumento no salário mínimo sobre as distorções do mercado de trabalho. Por outro lado, é necessário debater se a política salarial é o caminho mais eficiente para reduzir as disparidades de renda, por exemplo, em comparação à alocação de recursos para programas sociais.

Exiting Belindia?

Olhando para Frente

A persistente redução na desigualdade, sem comprometer a eficiência e o crescimento, é um grande desafio para o Brasil. Embora o país tenha dado grandes passos na redução da desigualdade de renda nos últimos 15 anos, o ritmo futuro da transformação pode se ver comprometido pela falta de habilidades. Além de consolidar o ambiente macroeconômico estável, os caminhos abaixo representam fontes potenciais de redução da desigualdade no futuro.

Em termos de educação, os esforços até o momento se concentraram na qualidade, embora equalizar a qualidade do ensino entre os grupos de renda represente um importante desafio. A reforma futura do sistema educacional é necessária para garantir que a renda do trabalho continue a evoluir progressivamente. Tratar da esfera fiscal, do ponto de vista da desigualdade, também é um grande desafio. A grande dependência que o Brasil tem dos impostos indiretos afeta muito mais aos pobres, enquanto a tabela de desconto de imposto de renda de pessoa física atual não tem impacto sobre a igualdade de renda. Ao mesmo tempo, desvincular as transferências sociais do salário mínimo pode ajudar a minimizar as potenciais distorções no mercado de trabalho, liberando recursos para investir em mecanismos eficientes a favor dos pobres, fortalecendo as estratégias mais ambiciosas, como o Brasil sem miséria. Em termos de programas sociais, um foco efetivo nos grupos mais vulneráveis (a distribuição dos serviços) pode melhorar a distribuição igualitária da prestação de serviços básicos, criando um ciclo virtuoso entre a maior igualdade de renda e a maior igualdade de oportunidades. Por fim, assegurar que a composição das futuras demandas de crescimento econômico demande trabalho altamente especializado também contribuirá para sustentar as reduções na desigualdade.

2. Veja: Banco Mundial (2011) e Lopez-Calva, L.F. & N. Lustig (eds.) (2010) Declining Inequality in Latin America: a Decade of Progress? Washington, DC: Brookings Institution.
Banco Mundial (2011) "A Break with History: Fifteen Years of Inequality Reduction in Latin America", LAC Poverty and Labor Brief.
3. Para referências específicas, veja o relatório completo, Lopez-Calva, L.F. & S. Rocha (2011) "Declining Income Inequality in Brazil: Learning and Looking Forward", Banco Mundial.
4. Bolsa Família paga benefícios menores, mas alcança mais beneficiários, com um custo de transferência 35% menor do que os gastos do BPC .

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Introduction

High levels of income inequality may hinder growth, as well as hamper the extent to which growth reduces poverty (Ravallion, 2009). Income inequality is also associated with macroeconomic volatility, political instability, and poor human development outcomes. Given its history as one of the most unequal countries in a highly unequal region, economists, political scientists, and development practitioners have long occupied themselves with the dissection of the causes and consequences of income inequality in Brazil (see, for example, Langoni, 1973; Barros and Mendonça, 1997; Menezes-Filho, 2001a). More recently, however, they have been able to turn their attention to a more uplifting topic: the sources of declining income inequality in both Brazil (see, for example, Ferreira et al., 2008; Soares, 2010) and the Latin America region as a whole (Birdsall et al., 2011; Lopez-Calva et al., 2011; World Bank, 2011).

This paper provides a review of scholarship on the causes of declining income inequality in Brazil, with a view to learning from the recent past and looking forward to policymaking in the upcoming years. After a synopsis of the history of income inequality in Brazil in global and regional perspectives (Section 2), we consider the relative importance of various explanations for the recent decline of inequality (Section 3). Following the work of Soares (2010), we organize the sources of declining income inequality into two principal categories – income from labor; and income from transfers – and address the roles of education policy, the minimum wage, social security benefits, and, lastly, social assistance, in reducing inequality over the last fifteen years. In Section 4 we summarize the principal findings on the sources of declining income inequality in Brazil and consider the implications for policymakers.

Understanding the sources of declining inequality in Brazil is an important task. Although the recent trend toward reduced income differentials is encouraging, concerns arise about its sustainability, given global economic conditions, Brazil's fiscal position, and the current skills level of workers. Learning from the recent past, we can see both what Brazil did right and where improvements could be made to ensure the continued decline in inequality. Looking forward, we can identify potential reforms to education, social security, and welfare assistance that could help to ensure continued reductions in inequality over the coming decades.

2

Inequality in Brazil
Past and Present

Brazil is a notoriously unequal country. In 1960, demographic census data revealed a high level of income inequality, as indicated by a Gini coefficient of 0.504. Inequality rose unabated through periods of economic growth and macroeconomic turbulence alike. The Gini coefficient rose from 0.561 in 1970 to 0.592 in 1980, a period known as the "Brazilian miracle" given the record levels of economic growth (Hoffmann, 2001). It continued to rise over a subsequent period of macroeconomic instability, triple digit inflation and low growth, reaching 0.607 in 1990 (based on the PNAD).[5] The Gini coefficient continued to hover at around 0.6 after the introduction of the Real Plan in 1994, which ushered in monetary stabilization (Rocha, 1997).[6] By the mid 1990s, Brazil had reached middle-income status, with an annual per capita income of US$4,800. Average income levels, however, belied stark inequalities: the poorest 50 percent of the population accounted for the same share of total income (around 13 percent) as the richest 1 percent.[7] High levels of income inequality were accompanied by discrepancies in education, housing conditions, and access to services, among other measures of wellbeing. While historical and institutional factors led to vast regional differences (Table A1, Annex), striking inequalities also persisted within the same town, or even the same neighborhood (Rocha, 2008a).

While Brazilian income inequality remains high, it has declined consistently since the late 1990s. The phenomenon is not unique to Brazil: most countries within Latin America and Caribbean (LAC) region have experienced a reduction in income inequality over the last decade or so.[8] For the 17 LAC countries for which comparable data is available, 13 experienced a decline of their Gini coefficient between circa 2000 and 2009. As Figure 1 shows, the decline of inequality in

Figure 1: Change in Gini Coefficient by Country, Circa 2000-2009

the LAC region as a whole stands in marked contrast to the trend in OECD countries and other emerging economies, including China, India, and South Africa, where inequality increased over the same time period (World Bank, 2011; Lopez-Calva et al., 2011).

Although part of a regional phenomenon, the decline of inequality in Brazil has outpaced developments in many other countries in LAC. In Brazil, inequality declined at a rate of 1.07 percent a year, well above the regional average of 0.63 percent (Figure 1). Thus, starting at a higher than average level for the region, inequality in Brazil has converged toward the regional average (Figure 2). The reduction of income inequality between households in Brazil has been accompanied by a convergence of regional and rural-urban differences (Medeiros et al., 2006; Ferreira et al., 2008). Yet, despite these achievements, at 0.537, Brazil's Gini coefficient is the fourth highest among the sample of 17 Latin American countries (Figure 3).

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5. Hoffmann (2001) estimated Gini coefficients on the basis of the 1960, 1970 and 1980 demographic censuses. The Gini coefficient for 1990 was calculated from PNAD data (not strictly comparable to the population census data).
6. Drawing on data from SEDLAC, World Bank (2011) calculates the Gini coefficient of household income in Brazil in 1995 to be 0.592.
7. The poorest 50 percent and wealthiest 1 percent accounted for 13.1 and 13.9 percent, respectively, of the income of workers receiving "positive" incomes (IBGE / PNAD, 1995).
8. A political discussion on the recent reduction of inequality in Latin America can be found in Birdsall, et al. (2011).

Figure 2: Gini Coefficient in Brazil and Latin America (17 countries)
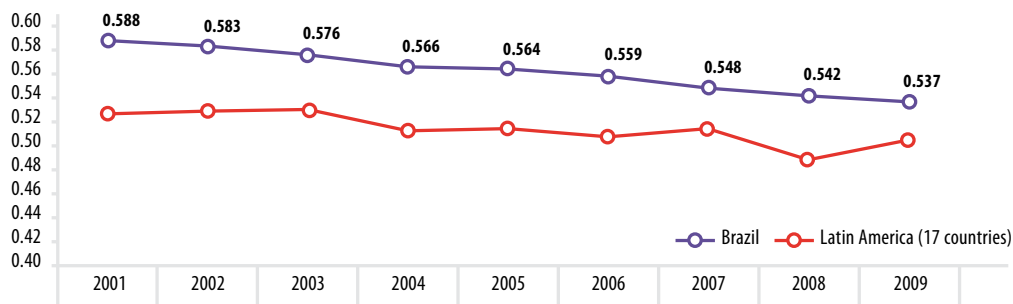
Source: Own calculations based on data from SEDLAC (CEDLAS and the World Bank). The Gini coefficient for Latin America is the simple average of the Gini coefficient of the following countries: Argentina, Brazil, Bolivia, Chile, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.

Figure 3: Gini Coefficient by Country, Circa 2008
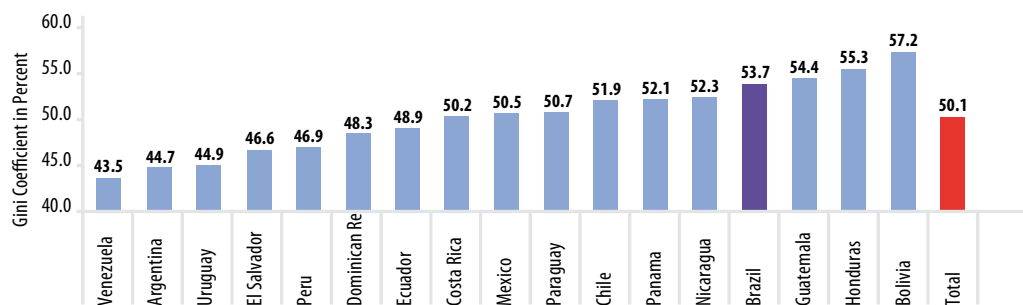
Source: Lopez-Calva et al. (2011) based on data from SEDLAC (CEDLAS and The World Bank). In order to facilitate the comparisons among Gini coefficients the vertical axis starts at 40 percent instead of zero. The years used to estimate the Gini coefficient are as follows: Argentina (2009), Bolivia (2007), Brazil (2009), Chile (2009), Costa Rica (2009), Dominican Republic (2007), Ecuador (2009), El Salvador (2008), Guatemala (2006), Honduras (2009), Mexico (2008), Nicaragua (2005), Panama (2009), Paraguay (2009), Peru (2009), Uruguay (2008) and Venezuela (2006). The total value is the simple average of the Gini coefficients.

Figure 4: Evolution of the Gini Coefficient in Brazil, 1992-2009
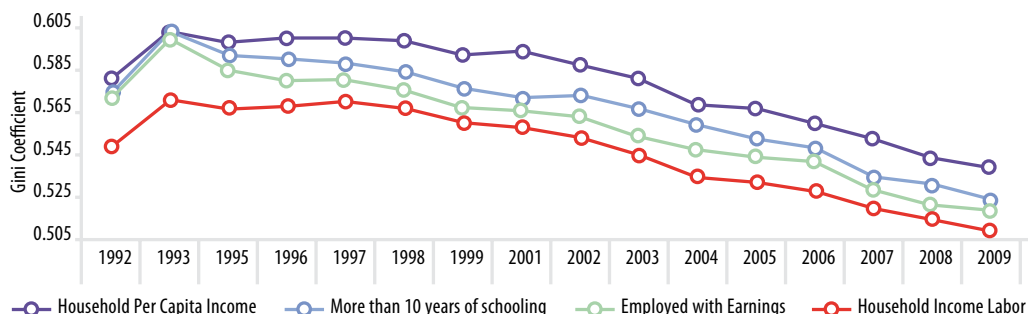
Source: IBGE/PNAD (excluding North region rural area).

Inequality in Brazil has declined according to all the principal measures (Figure 4).[9] Labor income inequality among workers – the measure most commonly-used in international comparisons – presents the lowest coefficient value over the entire period shown.[10] Household per capita income inequality presents the highest value, since household characteristics, such as educational levels and family size, tend to reinforce inequalities between households.[11] Despite these differences between the four measures, each demonstrates a downward trend in income inequality from the mid 1990s, with an accelerated decline after 2001. After 1997, income inequality declined at a rate of 0.8 percent per year; from 2001 onward, the pace of decline accelerated to 1.07 percent a year, as measured by the average change in the Gini coefficient (Lopez Calva et al., 2011).

Understanding the sources of this decline in inequality is crucial to enabling sustained poverty reduction in Brazil. Various authors have shown how high levels of inequality have hampered the poverty reducing impact of economic growth in Brazil. For instance, using World Bank data from the late 1980s, Barros and Mendonça (1997), show that Brazil's poverty rate would have been reduced by a further 6 percentage points (from 30 to 24 percent) if Brazil's Gini coefficient had been akin to Mexico's.[12] Conversely, declining inequality over the last fourteen years has enhanced the poverty reducing impact of growth. Employing Datt and Ravallion's (1992) methodology, changes in poverty in Brazil between 2001 and 2009 can be decomposed into three components: (i) a growth component, which captures changes in poverty attributable to changes in mean household income per capita, keeping income distribution constant; (ii) a redistribution component, which represents changes in the distribution, keeping mean income constant; and (iii) a residual or interaction component, which includes changes in both growth and income distribution that are not captured in the previous components. As shown in Figure 5, the decline in inequality accounted for 45 percent of the total poverty reduction (at US$4/day).

9. Take-home pay is the variable most often used to approximate status and well-being whenever consumption or expenditure are not available –the latter being better proxies of permanent income. Brazil's PNAD provides annual data in relation to income from all sources declared by individuals over 10 years of age, in response to questionnaire items: Income from main job, from part-time work, from other work (3); income from retirement and official pensions, or not (4); property rents and donations received (2); social security rebates (*abono de permanência*) for public servants, and other income. Unfortunately, the "other income" categories are treated as a composite, representing capital gains and welfare cash transfers; thus, values had to be identified indirectly in order to distinguish between transfers as part of the income received by individuals or households.
10. Labor income is the most important source of income for most families, consisting of all income obtained from the exercise of any type of job, occupation or position, either in the formal or informal sector of the economy (including labor income by employees with or without formal work documents [*carteira de trabalho*], self-employed people, employers and unpaid workers). The basic PNAD figures enable: (i) deploying data to identify income derived from an individual's main job; (ii) constructing composite income variables, such as total household income (combining all income received by all members of the household from all sources); (iii) obtaining income variables as a result of cross-referencing variables related to individual or household characteristics (for example, 'secondary' income from the employment of women with over 12 years of schooling or the proportion of retirement pensions out of the total income of urban households).
11. In other words, educational inequality is lower within families than between families (i.e. children of better-educated parents tend to be better-educated themselves). Fertility rates linked to education levels also affect the dependency rate, and hence per capita household income.
12. Mexico was one of the eight countries that, together with Brazil, were considered in the study by Barros and Mendonça based on World Bank data for the years around 1989. At 0.55, Mexico´s Gini coefficient was high by international comparisons, but well below that of Brazil (0.63) (Barros and Mendonça, 1997).

Figure 5: Contributions of Growth and Inequality to Poverty Reduction in Brazil, 2001-2009

Legend: ■ Growth ■ Redistribution ■ Interaction

Chart categories: $1.25/day Poverty, $2.5/day Poverty, $4/day Poverty
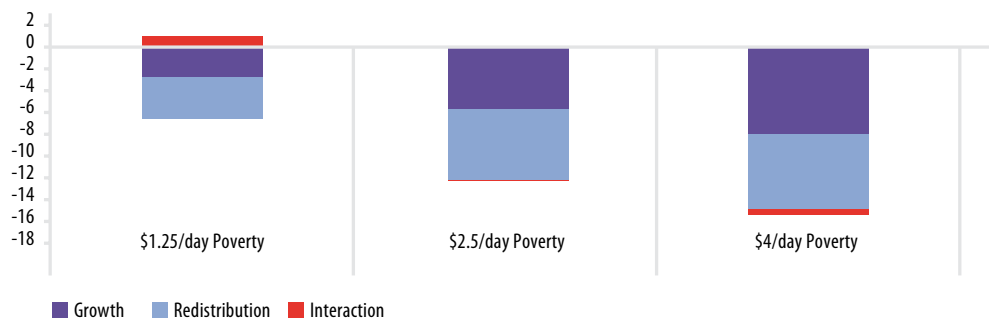
This effect is consistent with the reduction in extreme poverty, where the declining inequality contributed to 52 percent and 68 percent of total poverty changes at US$2.5/day and US$1.25/day, respectively. The findings suggest that declining inequality between 2001 and 2009 enabled pro-poor growth, and even had a more pronounced effect on extreme poverty reduction than economic growth alone.

Declines in income inequality have also been accompanied by significant progress in measures of non-income inequality. One such measure is the Human Opportunity Index (HOI), created by the World Bank's LAC region with the collaboration of IPEA (Box 1). The evolution of Brazil's HOI over the last decade demonstrates progress in access to education, health, and housing. Challenges remain, however, in specific measures (such as the quality of learning, post-natal care, and access to water and sanitation), where Brazil is lagging behind other countries with comparable income in the region. In 2008, Brazil's overall HOI of 76 was well below the HOIs in Argentina, Chile, Costa Rica, and Mexico.

The Human Opportunity Index in Brazil

The HOI is a measure of inequality of opportunity for children in basic services (such as education, water, sanitation, and electricity) that are critical in determining opportunity for economic advancement in life.   The HOI synthesizes: (i) how many opportunities are available, that is, the coverage rate of a basic service; and (ii) how equitably those opportunities are distributed across groups of people defined by exogenous circumstances, such as race, gender, or parental education. In other words, the HOI accounts in one single indicator for coverage corrected for equity.   In practice, this implies discounting a penalty for inequality of opportunity, P, from the overall coverage rate, C, so that HOI = C – P. The HOI runs from zero to 100; an HOI of 100 would thus signify a society that has achieved universal coverage at an equal rate across all groups.

Conditions that will cause the HOI to rise or fall can be broken down into two effects: a change in people's circumstances (the *composition effect*) stemming, for example, from demographic changes, or overall economic growth; and a change in group-specific coverage rates (the *coverage effect*). The coverage effect can be further decomposed into changes in the provision of services to all (the scale effect) and changes in the distribution of a service (the *equalization effect*). The HOI is intended as a workable tool for policymakers, helping them to identify the most vulnerable groups and the channels for positive changes in the advancement of opportunities for all.
Microdata from three major household surveys enables analysis of the evolution of the HOI in Brazil between the late 1990s and the late 2000s in the areas of education, health, and housing.

Education: Brazil offers excellent opportunities in school enrollment for 7-14 year olds (HOI of 98, with expected HOI of 100 by 2015) and very good opportunities for children to attend school without the interference of work from the ages 10 to 14 (HOI of 90). Most of the positive changes in these two measurements have been driven by changes in children's circumstances (the composition effect), although increases in the provision of services for all (the scale effect) also had a positive impact. Brazil, however, offers much poorer opportunities for children to progress on time and learn adequately. The HOIs for completing 4th grade and 8th grade on time were 47 and 39, respectively, in 2008 and the rate of change suggests that universality will not be achieved even for the next two or three generations. Meanwhile, the learning abilities of 15 year-old students in Brazil are below their counterparts in Latin America.

Health: Brazil enables excellent opportunities for child survival to age 5 and adequate nutrition (HOIs of 97 and 98, respectively), with the provision of more services to all (the scale effect) constituting the driving force behind recent improvements. Poor opportunities for an adequate start in life persist, however, as measured by an HOI of only 30 for complete tetanus protection and an HOI of 25 for post-delivery check-ups.

Housing: Brazil's performance in access to housing opportunities is generally excellent. Alongside Mexico, it is expected to be the first country in the region to achieve an HOI of 100 for housing. Brazil HOI for access to electricity was 97 in 2008, with most of the change driven by

Box 1 (cont.)

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the composition effect. Conversely, the scale effect (providing more service to all) explains about half of observed changes in the HOI for access to telephones and televisions. The only exception to the high performance in housing opportunities is observed in access to adequate water and sanitation (HOIs of 86 and 81, respectively): at the current rate of progress, an HOI of 100 for access to adequate water would only be reached by 2029, while universal sanitation is more than a generation (i.e. over 25 years) away. Brazil's HOIs for water and sanitation are considerably lower than in countries with comparable GDPs, such as Costa Rica (95 and 94, respectively) and Uruguay (93 and 97, respectively). The composition effect explains more than three-quarters of observed changes in the HOI for access to water and sanitation.

Figure 6: Human Opportunity Index, Circa 1995 and 2010

HOI 1995   HOI 2010   Annual change
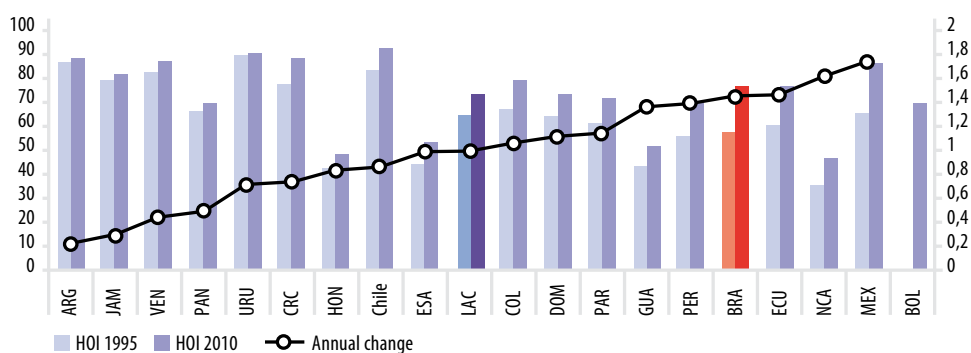
Source: author's creation based on a table A4 in Hassan and Molinas (2010).

Sources: (Molinas and Barros, 2010; Hassan and Molinas, 2010)

Explaining the Decline in Income Inequality

3.1. What do we know?

The decline in income inequality took place in changed political and economic conditions. First, the political will to tackle the problem intensified. After the successful monetary stabilization of 1994, the related issues of poverty and inequality came to the fore of public policy debates. Second, economic reforms created a more favorable environment in which to implement targeted interventions. Ferreira et al. (2008) are among the authors who document the impact of inflation on inequality in Brazil, noting that the "inflation tax" is usually regressive, since the ability to protect wealth through portfolio adjustments increases with income, and high-skilled jobs are more readily indexed to prices than low-skilled ones. Thus, bringing inflation under control after 1994, policymakers eliminated a force that had contributed to inequality in the past. Monetary stability brought both income gains and distributive improvements. While income gains, particularly in labor income, petered out between 1996 and 2003 (see section 3.2 below), the positive impact of relative macroeconomic stability on distribution has been an underlying constant for the last fifteen years.

Demographic change, improvements in education, increases in the size and distributive impact of government transfers, and increases in the minimum wage together explain the decline in inequality. Lower fertility rates in the lower income strata had repercussions on the dependency ratio and adult participation in the labor market (Wajnman et al., 2006). Major progress was made in education, with efforts to increase the average number of school years per individual and the reduction of educational inequality, which together constitute the key determinant of labor

income spreads (Barros et al., 2010; Ferreira et al., 2008, Foguel and Azevedo, 2007). Increases in the volume and improvements in the targeting of social security and welfare transfers had similarly positive impacts (Barros et al., 2010; Ferreira et al., 2008; Soares, 2010). Finally, increases in the minimum wage had a redistributive effect both directly, through the labor market, and indirectly, through their impact on social assistance programs indexed to the minimum wage (Barros et al., 2010; Soares, 2010). The methodologies, main indicators, and findings of these studies are summarized in Table A2 in the Annex.

Income from labor accounted for the lion's share of changes in income inequality between 1997 and 2009, although income from non-labor sources played an increasingly important role. Soares (2010) followed Hoffmann (2004, 2009) and Soares (2006) in quantifying the contribution of various types of income to the reduction in inequality over the period 1997 to 2009. These studies considered two basic components: (i) the concentration coefficient (CC) of each source of income; and (ii) the share of each source of income in the total per capita household income.[13] Table 1 summarizes Soares's (2010) results. Changes in the distribution of labor income accounted for a 4.2 percent reduction of the Gini coefficient, amounting to more than two-thirds (69 percent) of the total reduction of inequality. Social security and pensions, the second largest source of income, accounted for an increasing share of family incomes due to expanded coverage and real increases in the average cash benefits paid out. Their distributive impact over

Table 1: Income by Origin, 1997-2009. Concentration Coefficients, Share of Total Income and Impact on Gini Variation of PCHI

Income types	Share (%)		Concentration Coefficient		Impact on Gini
	1997	2009	1997	2009	1997-2009
Labor	81.5	76.2	0.597	0.543	-4.2
~ MW	79.6	72.6	0.615	0.575	-3.1
= MW	1.9	3.6	-0.159	-0.086	-1.0
Social Security	14.1	18.8	0.577	0.563	-0.3
~ MW	11.4	14.1	0.720	0.718	0.3
= MW	2.7	4.7	-0.03 1	0.094	-0.6
Social Assistance	0.0	1.3	-0.041	0.292	-1.1
BF	-	0.7	-	-0.5 16	-0.8
BPC	0.0	0.6	-0.041	-0.018	-0.3
Others	4.4	3.7	0.706	0.608	-0.5

Source: Soares (2010). Notes: MW refers to the minimum wage; BF to the Bolsa Família program; and BPC to the Continuous Cash Benefit Program.

the period was positive, despite the anomalous situation whereby their concentration coefficient exceeded the labor income concentration coefficient in 2009. Social security programs that were not tied to the minimum wage had an adverse impact on the Gini coefficient; those indexed to the minimum wage had a positive, albeit relatively small, redistributive effect. Although targeted social assistance programs contributed to a low share of per capita household incomes in 2009, they had a disproportionately significant impact on inequality: Bolsa Família alone contributed to a 0.8 percentage reduction of the Gini coefficient.

Together with the studies of Soares (2006) and Hoffmann (2009), these findings suggest that labor income had a declining, though still predominant, impact on the reduction of income inequalities during the late 1990s and 2000s, while social assistance programs had an increasingly significant impact over the same period of time.[14] Following the approach used by these studies, we break down the sources of reduced income inequality between labor income and non-labor income in the sections below, so as to ascertain the relative contribution of the various sources of income to the reduction in inequality.

3.2. Trends in Labor Income Inequality

Labor income, which accounted for 76.2 percent of the income for Brazilian families in 2009, constitutes the main observed determinant of income inequality, accounting for over two-thirds of the reduction of income inequality between 1997 and 2009 (Table 1). These twelve years can be divided into two periods: for the first seven years (1997-2003), average incomes from labor declined; from 2004 onward, average incomes increased. Despite the differences in labor market conditions between the two periods of time, inequalities derived from labor income decreased both when average incomes were shrinking and when they grew.

Between 1997 and 2003, average labor incomes declined due to low rates of economic growth and multiple shocks, but the negative impact on workers in the bottom strata was less drastic than on workers higher up the distribution scale. Wages at the lower end of the earnings scale were protected by reforms to the minimum wage during this period. Inflationary pressures had caused a dramatic loss in the real value of the minimum wage during the 1980s and early 1990s. Following the introduction of the Real Plan in 1994, the federal government updated the minimum wage on an annual basis, enabling recovery of its real value. Between 1997 and 2009

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13. The concentration coefficient is a measure analogous to the Gini coefficient that accounts for the ranking of each source of income in total income.
14. Soares (2006) found that labor income contributed to a 73 percent reduction of the Gini index for the period 1995-2004; Hoffmann (2009) found that labor income contributed to a 59.8 percent reduction of the Gini index over the later period of 2001-2007. Their observations on the importance of income from labor to inequality reduction were upheld by Barros et al. (2006) and Barros et al. (2010). The two reports co-authored by Barros found that labor income contributed 52 percent and 59 percent to inequality reduction over the periods 2001-2004 and 2001-2007, respectively.

the value of the minimum wage increased by 70 percent.[15] As shown in Figure 6, workers in the third income group (the earning group with the largest number of workers on the minimum wage) experienced real pay increases between 1997 and 2003.[16] The minimum wage also spilled over to benefit other workers earning monthly salaries close to the minimum wage. In contrast, workers within the top two groups experienced real losses of income.

A resumption of higher rates of economic growth in 2004 enabled real labor income gains throughout the entire distribution pattern.[17] Higher income growth rates in the lower income percentiles enabled continued convergence of labor incomes across earnings groups. Nor did the 2008 global financial crisis scupper the positive trend: after the 2008 PNAD sample had been collected, the crisis affected income and employment levels, but the figures had largely recovered by September 2009, as shown by the findings of the Monthly Employment Survey (IBGE/PME) and a number of different production and consumption indicators.[18]

Figure 7: Evolution of Real Labor Incomes by Distribution Group, 1995-2009
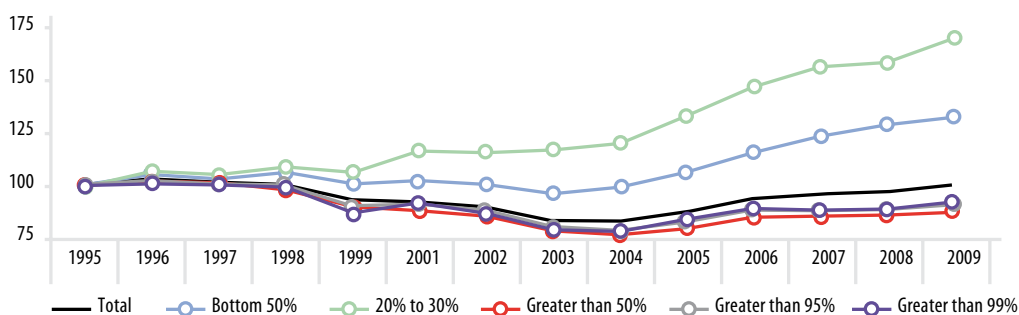
Source: IBGE/PNAD (excluding the North Region rural area). (1995=100)

Figure 8: Labor Income Distribution by Percentiles and Gini Index, 1995-2009
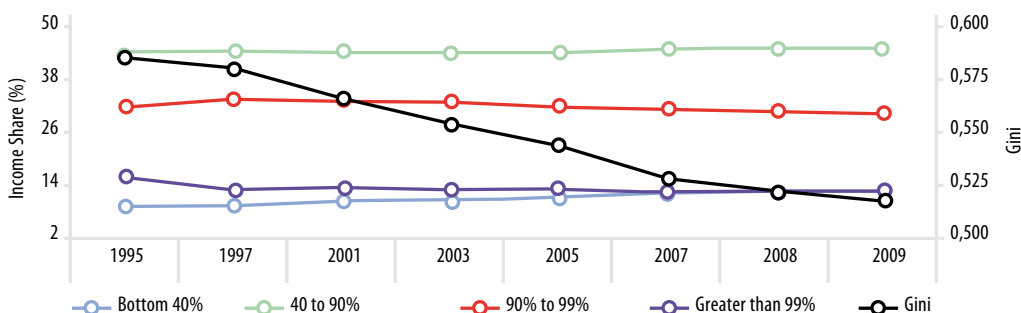
*Source: PNAD/IBGE, selected years. *Income of workers with positive incomes. Excluding the North Region rural area.*

Exiting Belindia?

Despite these marked improvements in equality of labor income, massive differentials persist. At 0.521 in 2009, Brazil's Gini index for labor income remains high by global and regional standards, mainly due to the strong concentration of income at the top of the earnings distribution. Indeed, the top one percent of earners account for approximately 13 percent of total labor income – around the same amount accruing to the 40 percent of workers at the bottom of the distribution scale (Figure 7). Moreover, if economic growth is sustained, skills shortages are likely to arise, leading to higher earnings for better educated workers and a reduction of some of the distributive gains of recent years. The links between education and labor inequality are discussed in section 3.3, immediately below, while the policy options for maintaining the positive trends of recent decades are discussed in section 4.2.

3.3. The Role of Education in Declining Labor Income Inequality

Historically, educational levels in Brazil have been lower than in countries with comparable per capita incomes. Brazilians born in 1930 had, on average, three years of schooling, compared with an average of five and seven years in Chile and Argentina, respectively.[19] At 3.8 years in 1990, average education levels had improved little in Brazil in sixty years and continued to compare unfavorably with Chile and Argentina, where average education levels had reached 8.1 years and 7.9 years, respectively (World Bank 2010).[20] This poor progress was driven in large part by high dropout rates at the primary level.

Brazil's historical inequalities in labor income stemmed in large part from these inequalities in education. Langoni (1973) asserted that rising inequality levels in the 1960s were due to a shortage of qualified labor.[21] Subsequent research based on the PNAD backed up this contention for later decades. For example, Barros and Mendonça (1997) argued that education had a greater impact on labor income inequality than other factors such as labor market segmentation, discrimination, and individual worker characteristics. Menezes-Filho (2001a) estimated that education levels alone could explain 40 percent of labor income inequality and 26 percent of family income inequality.[22] Similarly, employing a model to decompose the labor income inequality index,

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15. The increase in the real annual value of the minimum wage was due to adjustments over and above inflation, as well as by gradually bringing the month of the minimum wage readjustment forward.
16. In September 1995, when the minimum wage was R$100 a month, workers in the third group of the labor income distribution scale earned an average of R$106 (Source: IBGE / PNAD).
17. Average GDP growth in 2004-2009 was 3.6 percent per annum compared to 2.2 percent in 1997-2004 (Source: IPEADATA).
18. Nevertheless, Soares (2010) blames the effects of the global crisis for the decline in the pace of distributive improvements in 2008 and 2009.
19. For cohorts by years of schooling since the beginning of the 20th century see Menezes-Filho (2001b).
20. By way of further comparison, CEPAL/ECLAC data suggests that the 2006 illiteracy rate in urban areas of Brazil was 7.8 percent, compared with 1.4 percent in urban areas of Argentina.
21. A classic academic controversy: Langoni´s views were challenged by Fishlow (1973) who argued that income inequalities were the result of the economic policies of the military regime.
22. Ramos (2008) applied the Shorrocks methodology to disaggregate the Theil T index, using set variables: age, education, gender, race, job position, region and category of activity or business.

Ramos (2006) showed that educational differences between workers accounted for one third of income inequality.   Bourguignon et al. (2008) suggested that between four and six points of the thirteen percentage point difference in the United States' and Brazil's 1999 Ginis were accounted for by differences in the distribution of years of schooling between the two countries; a further two to five points were due to steeper returns to education in Brazil.

A dearth of educated workers in Brazil put a particularly high premium on the requisite skills, resulting in pronounced wage differentials based on education. Empirical evidence based on data from different countries shows that educational inequality is closely linked to the average number of years spent in school, and only starts to decline after an average of 7 years of schooling have been completed (Ram 1990). Moreover, as Bourguignon et al. (2008) note, low average years of education and high variance between education levels are linked to steep returns to education. Returns to education in Brazil have been higher than in other Latin American countries. Between 1981 and 1997, average returns fluctuated around 15 percent for each additional year of schooling (Menezes-Filho et al., 2007).[23] By contrast, average returns in Argentina, Chile, and Mexico over the same time period were 9, 11, and 12 percent, respectively (Menezes-Filho, 2001b). Educational inequalities were also transmitted across generations. Bourguignon et al. (2007) argued that between 10 and 20 percent of labor income inequality was due to parental educational status; Ferreira and Gignoux (2011) showed that 91 percent of those deprived of opportunities in 1996 were the offspring of women who did not go to school.

Concerted policy reforms from the mid-1990s on led to notable improvements in education standards (Box 2). As a result, the segment of the population with over eight years of schooling (secondary) expanded significantly, and from 1998 onwards the number of people with higher education (11 or more) also grew. The average number of years of formal education increased from 6.4 in 1997 to 8.2 in 2007 – a rate of change that represented a doubling of improvements over the previous decade (Barros et al., 2010).[24] Figure 8 shows the changes that have taken place since 1997 in the composition of the Brazilian labor force according to years of education. By the end of the period under analysis, workers with 11 or more years of formal education (i.e. those that had at least completed high school) represented 43.2 percent of all employed people in Brazil.[25] Educational improvements in Brazil initially benefited everyone: the education distribution curve, unaltered, shifted to the right. However, with the rise in average education levels, educational inequality began to decline from 2001 onwards, in line with the statistical evidence asserting that inflection points tend to occur at around 7 years (Barros et al., 2010).[26] Average returns to education also declined at an unprecedented pace: annual average returns per year of schooling fell from 14.5 percent in 1997 to 12.2 percent in 2005 (Barros et al., 2010).

An increase in average years of education and a narrowing of educational inequalities contributed to a reduction in returns by years of education (Figure 9). Using a Juhn, Murphy and Pierce (1993) decomposition, Foguel and Azevedo (2007) decomposed labor income into the quantity

Figure 9: Percentage Share of Workers by Years of Education, 1996-2009
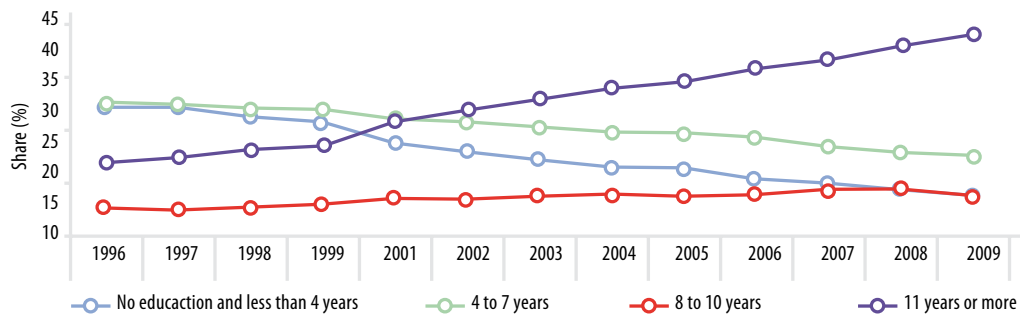
Source: IBGE/PNAD (excluding the North Region rural area).

effect (the distribution of education and experience), the price effect (returns to education and experience), and unobservable characteristics.[28] They found that between 1995 and 2001 the quantity effect and unobservable characteristics played a major role in labor income inequalities, while the impact of returns to education (the price effect) was negligible. Between 2001 and 2005, however, the price effect played a more important role in the decline of labor inequality.

From 2001 onward, the changes in labor income inequality were driven by declining returns to skills. Following Foguel and Azevedo's methodology, World Bank (2011) decomposes labor income for the years 1995, 2001, 2005, and 2009, allowing results to be interpreted as standard deviations from 2001. Panel A of Figure 10 shows total changes in the Gini coefficient with respect to 2001 in Brazil, while panels B, C and D disentangle these changes into a quantity effect, price effect and other factors. These results demonstrate that from 2001 on, a decline in returns to skills (the price effect) drove a reduction in labor income inequalities. Other factors, which could include macroeconomic stability and institutional changes, also contributed to the decline in income inequality. Changes in the distribution of education and experience (the "quantity effect") had a minor contribution to labor inequality reduction. Although education expanded

23. Average returns to education from 1981 to 1997 were 15 percent in Brazil, with a maximum of 16 percent in 1988 and a minimum of 14 percent in 1992 (Menezes Filho et al., 2007).
24. The average time spent in formal education between 1987 and 1997 only increased by 0.7 years (Barros et al., 2010).
25. The structure of the Brazilian education system is as follows (by number of years of completed schooling): 0-4 years = primary or basic; 5-8 years = secondary; 9-11 years = high school; and 12 years and over = higher (or university level). Studies on income distribution usefully consider the timeframes 0-3 years, 4-7 years and 8-11 years because substantial increases in labor income have been recorded for the final year students of each cycle. (Incomes of final year students equate more to the income of students in the subsequent cycle who have not yet completed their course than to the previous ones). The differentials of labor income by schooling/educational level were estimated by Menezes-Filho (2001b) for 1981-2005 and by Barros et al. (2010) for 1995-2007.
26. For 1997-2007 Barros et al. (2010) show the inverted U-shaped relationship between education inequality (measured as standard deviation of years of schooling for individuals in the axis of ordinates) and the average number of years of schooling. The peak of the curve was reached in 2001 (at a standard deviation of 4.5 and an average of 7 years of schooling).
27. Potential experience is measured by (age – years of education – 6).

Educational Reforms in Brazil

After decades of neglect, in the mid 1990s the federal government assumed a stronger role in education policy and launched a series of innovative reforms that transformed the education system. The Cardoso administration introduced the first comprehensive legal framework for basic education (*Lei e Diretrizes de Bases*) in 1996 and the first national curriculum guidelines. Over the following years, **interventions** at the federal, state, and municipal level induced the transformation of the Brazilian educational system. These interventions encompassed three critical areas: (i) education finance equalization; (ii) results measurement; and (iii) reduced schooling costs for poor children.

Education finance equalization. According to a recent World Bank (2010) report, the transformation of the federal government's role in education finance in Brazil was "the revolutionary change that made all other progress possible." The principal policy objective was to eliminate the extreme disparities across regions, states, and municipalities in spending per student. The Cardoso government's 1995 FUNDEF (*Fundo de Desenvolvimento do Ensino Fundamental*) and Lula's 2007 FUNDEB (*Fundo de Manutenção e Desenvolvimento da Educação Básica e de Valorização dos Profissionais da Educação*) equalized funding across regions using three instruments: (i) a guaranteed minimum level of spending per student in pre-primary, primary, and secondary education; (ii) a redistribution mechanism of educational resources between municipalities and a federal transfer program towards municipalities in need; and (iii) a major increase in teachers' wages. These interventions were accompanied by an increase in spending on basic education (from approximately 2 percent of GDP in 1995 to 4 percent of GDP in 2008).

Results measurement. The second major intervention was to create a source of public information on student and school performance. This started as a biannual test of a small national sample of students under the National Assessment of Basic Education (SAEB). Lula's administration extended the program to a nation-wide test of math and Portuguese called *Prova Brasil*. These reforms have enabled the standardized measurement of learning outcomes across almost 40 million students in 175,000 primary and secondary schools. The administration combined this information with data on student enrollment, repetition and graduation rates, to generate a comprehensive index of school performance, called IDEB (*Indice de Desenvolvimento da Educacao Basica*). According to World Bank (2010), *Prova Brasil* and the IDEB are in many ways "superior to current practice in the US and other OECD countries" in terms of "the quantity, relevance and quality of the student and school performance information" they provide.

Reducing schooling costs for poor children. The third intervention was the implementation of conditional cash transfer programs that aimed at increasing schooling attainment and educational

Box 2

Box 2

opportunities of students from poor families (*Bolsa Escola*). Under Lula's administration, *Bolsa Escola* was consolidated with other transfer programs into *Bolsa Família*. Coverage grew from 4.9 million families in 2002 to 12 million families (or 97.3 percent of the target population) in 2009, with transfers increasing from R$3.4 billion to R$11.9 billion (in 2009 prices). Numerous evaluations have found evidence of positive impacts on a wide range of education outcomes, including enrollment, attendance, grade progression, retention rates, and the study time of students from beneficiary families.

The **impact** of these reforms has been remarkable and can be broken down by three areas: improved coverage; learning outcomes; and reduced educational inequality.   First, coverage expanded at a fast pace: while only 30 percent of the labor force had completed secondary education in 1993, today this figure is 60 percent; meanwhile, gaps in primary school completion and pre-school coverage between Brazil and other middle-income countries in the region are also closing.   Second, learning outcomes improved vastly: between 2000 and 2009, Brazil had the strongest math improvement and third largest overall improvement globally, according to the OECD's Program for International Student Assessment (PISA); a 52 point increase in Brazil's PISA math score implies that students gained a full academic year of math over the decade. Finally, and most pertinently for our present investigation, education reforms, and in particular *Bolsa Família* contributed significantly to the equalization of educational attainment in Brazil: in 1993, the child of a father with no formal education would complete only 4 years of schooling on average; today, Brazilian students complete between 9 and 11 years of schooling, regardless of their parents' education.

While progress has been substantial, the Brazilian education system has not closed the gap in achievement with other middle income LAC and OECD countries. In particular, the quality of education remains a key **challenge**: Brazil's impressive improvements in the PISA index were from a low base and in 2009 it was still ranked 53rd out of 65 countries in the study of mathematics, reading, and science.

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Source: World Bank (2010)

Figure 10: Returns by Years of Education (2009 Index =100)[27]
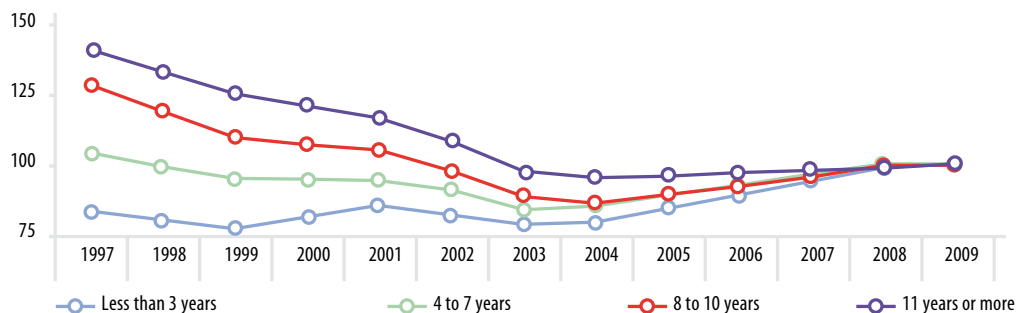
Source: Rocha (tabulation from micro data).

Figure 11: Decomposition of the Labor Income Gini Coefficient in Brazil
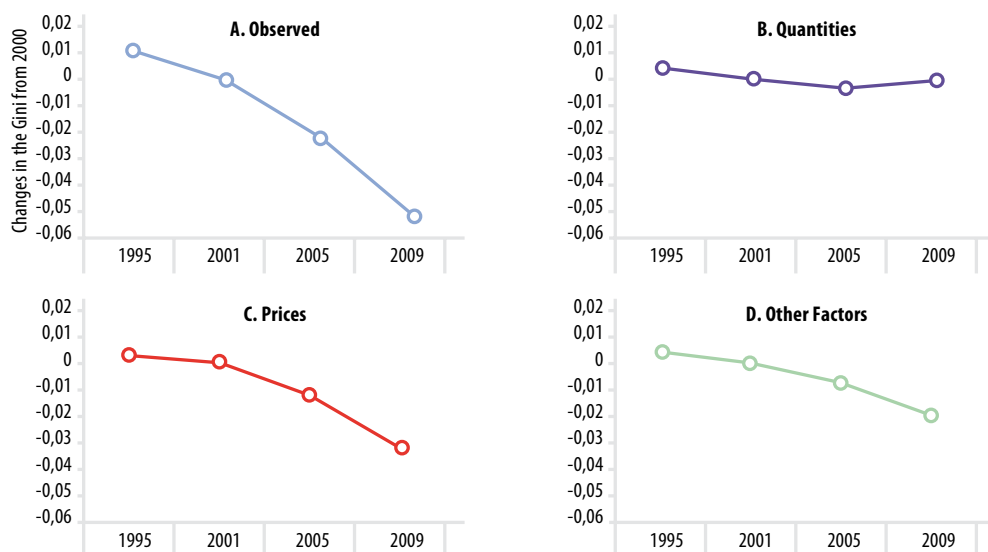
Source: World Bank (2011) using data from SEDLAC (CEDLAS and The World Bank). Labor income is based on individual hourly wages.

significantly between 1995 and 2009, the negligible "quantity effect" was driven by a partially offsetting increase of inequality in potential experience.[29]

While, as noted above, average returns to education declined after 1997, the pace of change varied according to the number of years of education. Employing the cutoffs that denote standard international schooling cycles, Table 2 shows that income differentials declined between employed individuals with completed primary and secondary education, but continued to widen

between those with secondary and higher education up to 2004. Meanwhile, the differences in income between 12 to 14 years and 15 plus years of education continued to widen in 2009. Since the group with some university level education consisted of only 7 percent of the labor force in 1997, and its expansion rate was only similar to that of workers with secondary education, a temporary bottleneck was created, delaying the reduction in income differentials for this category of workers (Table 3).

Table 2: Labor Income Differentials by Educational Level (Selected Years)*

Ratio	1997	2002	2004	2009
(4 to 7)/(0 to 3)	**1.46**	**1.47**	**1.46**	**1.31**
(8 to 11)/(4 to 7)	1.64	1.50	1.43	1.38
(12 +)/(8/ to 11)	2.65	2.93	3.05	2.78
(12 to 14)/(8 to 11)	1.73	1.85	1.74	1.54
(15 +)/(12 to 14)	1.89	2.07	2.21	2.28

*Source: PNAD/IBGE. * Urban-based males in paid work for at least 20 hours per week.*

Table 3: Population* by Years of Schooling (Selected Years)

Ratio and Duration of Education	1997	2002	2004	2009
Ratio				
(4/7)/(0/3)	0.99	1.19	1.22	1.26
(8/11)/(4/7)	0.68	0.93	1.05	1.33
(>=12)/(8/11)	0.29	0.27	0.27	0.33
Years of schooling (in 000s persons)				
0-3 yrs	43,468	39,202	38,675	36,201
4-7 yrs	43,187	46,730	47,026	45,678
8-11 yrs	29,462	43,280	49,467	60,591
12 + yrs	8,582	11,747	13,492	19,786

*Source: PNAD/IBGE, 1997, 2002, 2004 and 2009. *10 year-olds and over*

28. Average earnings by educational level at September 2009 prices: under 3 years schooling - R$437. 21; 4-7 years - R$612. 22; 8-11 years R$731.73; 12 years+ - R$ 1597. 41 (Source: PNAD / IBGE).
29. Although the quantity effect was only minor, Brazil is one of only three countries in the LAC region in which all three components (quantity, price, and other factors) moved in an inequality-reducing direction (World Bank 2011).

3.4. Understanding Changes in Labor Income at Two Ends of the Skills Spectrum

Increased access to higher education brought only marginal redistributive impacts due to changes in the composition of workers with higher-level education. Brazilians leaving higher education increasingly entered occupations with relatively low average returns. Table 4 illustrates this point. Individuals with higher education were separated into two occupational categories: Category 1, restricted to people with higher education (11 or more); and Category 2, also open to those with lower levels of education (either basic or secondary education). Within Category 1, those employed in the education sector nearly doubled between 2002 and 2009, such that, by 2009 the sector consisted of around 20 percent of all employed people with higher education.[30] Average earnings in the education sector were more than 40 percent lower than average earnings for Category 1 workers as a whole. Within Category 2, the broad occupational class of clerks (*escritaurios*), likewise expanded vastly over the seven year period and was likewise characterized by below average pay for Category 2. Both the education sector employees and clerks are numerous and receive below-average pay, which should have contributed to decrease the average income of workers with higher education. Yet, the contribution of the two groups and subgroups to the average earnings of higher-level workers between 2002 and 2009 was marginal (0.78 in the case of education sector professionals, and 0.06 for clerks).

At the low end of the education spectrum, a relative shortage of workers prepared to take jobs in certain occupational areas could provide one explanation for favorable pay growth for less-

Table 4: Workers with Higher Education by Occupational Categories, 2002-2009

Occupation	Nº Workers (000s)		Average Income (in R$)		Contribution to decline in Average Income	
	2009	Δ2002-09	2009	Δ2002-09	2002	2009
TOTAL	9,788	69.1	3,128.66	-12.9	1.00	1.00
Category 1	6,533	60.5	3,663.37	-10.3	0.80	0.78
Education Sector Professionals	1,931	87.8	2,114.19	-6.7	0.11	0.13
Other Professionals	4,603	51.3	4,313.27	-8.3	0.69	0.65
Category 2	3,255	89.5	2,055.27	-15.3	0.20	0.22
'Clerks'	938	126,5	1.807,04	-13.9	0.04	0.06
Other Occupations	2,316	77,7	2.155,82	-14.8	0.16	0.16

Source: IBGE/PNAD, 2002 and 2009 [R$ at 2009 rates].

Figure 12: Evolution of Employment and Average Incomes (Percentage) among Workers with Low Schooling Levels in Selected Jobs*, 2002-2009
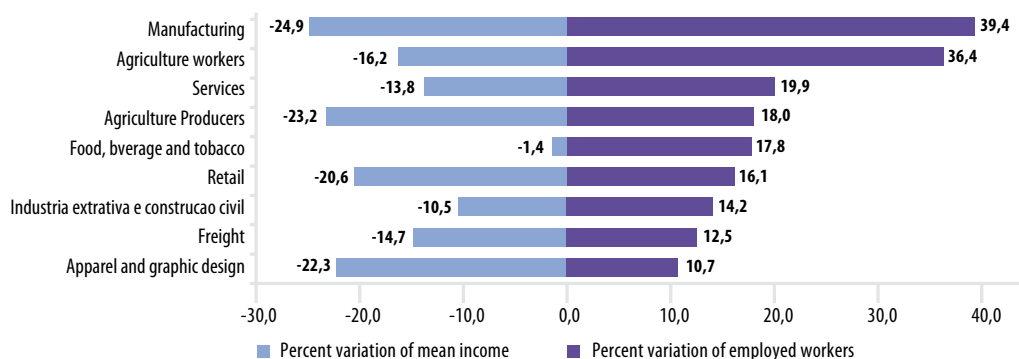
*Brazilian Job Classification: Level 47 jobs with 200,000 workers with at least three years of education in 2002.

qualified workers. Indeed, the number of low-educated people, both as a percentage of the labor force and of the population as a whole, has fallen since 1997. Specifically, the share of low-educated workers decreased from 50.5 percent of the labor force in 1997, to 48.1 percent in 2001, and 40.3 percent in 2009. There is no evidence, however, to support a contention that the increase in average incomes for low-skilled workers represents a premium due to critical shortages of labor in certain occupations. We compared the variation in the number of workers employed and their average earnings in various low-skilled occupations that, combined, employed 90.6 percent of workers with less than four years of schooling in 2002. Figure 11 demonstrates that the relationship between employment and average income varied substantially, with no visible correlation between an increase in returns and a relative shortage of workers. The explanation for increases in the average income for low-skilled workers, then, lies elsewhere.

The minimum wage has had a favorable impact on inequality. As noted above, the rise in the real value of the minimum wage after 1994 was correlated with the preservation of income for workers in the lower end of the earnings spectrum during the period of slow economic growth that lasted until 2003. After 2003, the income gains for lower-skilled workers continued to increase faster those of other workers, although the gains were always well below the annual increases of the minimum wage.[31] One study using counterfactual analysis shows that in the period 2001 to 2005, the real increase in the minimum wage contributed between 30 and 69 percent to the reduction in labor income inequality, depending on the inequality index employed (Firpo and Reis, 2006). The principal mechanism by which the minimum wage reduced labor market inequalities was

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30. In the IBGE standard classification professionals with 'higher' education could be engaged in teaching at different levels from pre-school to university level/ higher education and/or undertaking a range of educational functions as monitors/assessors or advisers.
31. The minimum wage appreciated 44 percent in real terms between September 2002 and September 2009.

Figure 13: Workers in Receipt of Minimum Wage Compared to Total Worker Universe (Percentage), 2002 and 2009

2002

| | 0 to 3 years of education | 4 to 7 years of education | 8 to 11 years of education | 12 years + of education |

Workers earning minimum wage   Total employed

2009

| | 0 to 3 years of education | 4 to 7 years of education | 8 to 11 years of education | 12 years + of education |

Workers earning minimum wage   Total employed
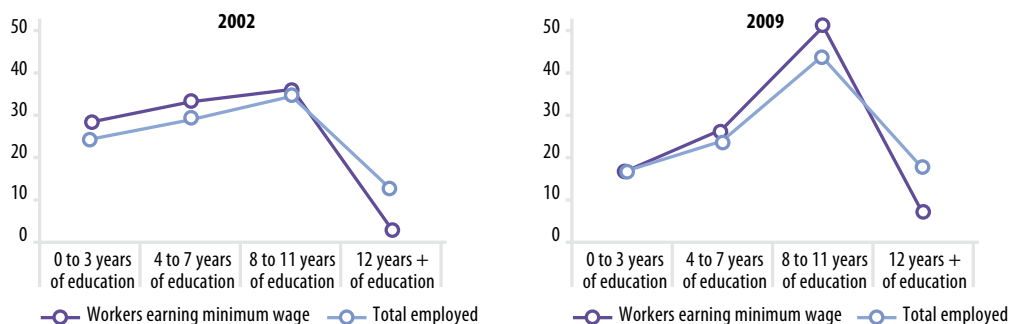
through its "lighthouse effect" at the lower end of the earnings spectrum. In other words, each increase in the minimum wage signaled an opportune time for salary renegotiations for workers earning above the minimum wage; (this signaling effect petered out higher up in the wage distribution). Better educated workers made up an increasing share of minimum wage earners over the period 2002-2009 (reflecting the tendency, documented in Table 4 above, of workers with higher education to enter lower paid jobs). As the relative share of well-educated workers earning the minimum wage increased, the share of low-educated workers on minimum wage salaries declined, notwithstanding the changes noted in the distributions of all workers by years of schooling (Figure 12).

Increases in the real minimum wage do not appear to have created significant distortions in the labor market to date. Acknowledging the role of the minimum wage in reducing labor income inequalities, Barros et al. (2010) question whether this was the most efficient way to reduce income disparities. Using counterfactual stimulations, they assert that an increase in the minimum wage would have less impact on income inequality than an allocation of the same resources to *Bolsa Família*. While their observations merit further investigation, it is noteworthy that, contrary to expectations, between 2002 and 2009 the minimum wage increases did not lead to a reduction in minimum wage workers, nor did it prevent younger people from entering the job market. Rather, the percentage of employed persons receiving a pay exactly equal to the minimum wage remained virtually static at around 10 percent from 2002 to 2009, while the composition of these workers by age group changed very little over the same years.[32] Market acceptance of minimum wage hikes may be linked to the incentives for formalization. In other words, businesses may have accepted compliance with the minimum wage as a cost that was outweighed by the benefits of formalization, such as increased access to credit.

3.5. The Role of Transfers in Declining Income Inequality

Social policies in Brazil have undergone significant changes since the new Federal Constitution of 1988, leading to expanded coverage and increases in the value of benefits through the General Social Security Regime (RGPS) and the *Benefício de Prestação Continuada* (BPC) – a program of transfers for low-income elderly and disabled people. Most importantly, the Constitution tied the floor of some benefits to the minimum wage, leading to an increase in their value. While the BPC is compulsorily linked to the minimum wage, other social security schemes – including retirement pensions that account for 62 percent of total pensions paid out by RPGS – are currently benchmarked to it. As a result, minimum wage adjustments have had a significant impact on the value of these pensions and welfare cash payments. For instance, in the case of the Rural Workers Welfare Fund (FUNRURAL), the benefits to qualifying individuals effectively doubled after the change in regulation, since they had been half the minimum wage on the eve of the Constitution. Figure 13 illustrates the evolution of the number of benefits and corresponding amounts paid out by RGPS. While the increased expenditure is partially explained by demographic factors, particularly the expanding elderly population, it also reflects a more generous benefits policy. This is particularly true in rural areas, where government-run social security coverage is now virtually universal.[33]

Figure 14: Evolution of the Number and Value of RGPS Pension and Social Welfare Benefits, 1995-2009
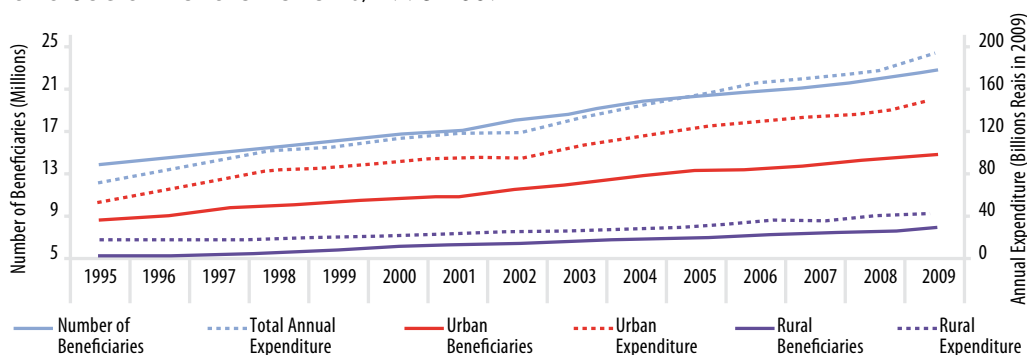
*Number of benefits paid out in December each year. Source: AEPS 1996- 2008; BEPS 2009.

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32. In 2002, people aged between 20 and 29 years made up 13.2 percent of workers receiving exactly the minimum wage; in 2009, the same age group made up 15 percent of all workers receiving exactly the minimum wage. Across the time period this group remained the largest group earning the exact minimum wage. People with higher education, however, make up a growing share of minimum wage earners.

33. Created in the mid 1960s, FUNRURAL has moved toward universal coverage since the mid 1990s, gradually replacing BPC in rural Brazil. While BPC benefits accounted for 42 percent of total transfers in rural areas in 1995, they currently account for only 4.2 percent of benefits in rural areas (AEPS, various years). The payment of FUNRURAL benefits does not depend on previous contributions to the pension system by the beneficiary, rather it depends only on the applicant's ability to provide evidence of having worked in the farming/agricultural sector for a given number of years.

While non-labor income contributed to a relatively low share of per capita household incomes in 2009, it had a significant impact on inequality. As Soares (2010) estimates, the social security benefits linked to the minimum wage have reduced the Gini index by 0.6 points (Table 1 above). Rocha (2009) shows that the exclusion of pension incomes equivalent to the value of the minimum wage would bring about an increase of 50.6 percent in the index of the quadratic poverty gap for Brazil in 2007. Exclusively in rural areas, an exclusion of pension incomes would increase the index by 76.6 percent. The impact of minimum wage-indexed social security payments has been particularly high in rural areas, due to the near universal coverage of FUNRURAL. Since the FUNRURAL retirement pension is equal to the minimum wage, it compares favorably to the average income of workers in rural Brazil and has thus had a substantial impact on poverty reduction, income inequality, and regional and urban-rural inequality.[34] Indeed, it appears that the real increase in the minimum wage since the mid 1990s has had its most significant impact on inequality through indexed public transfers rather than labor income (Barros et al., 2010).

A dramatic increase in cash payments to poor families under the *Bolsa Família* program has accompanied the more gradual increase in payments to low-income elderly and disabled people through BPC. While the number of benefits awarded under the *Bolsa Família* program is four times greater than those under the BPC, the average unit value of *Bolsa Família* payments represents 20 percent of BPC payments.[35] Thus, while *Bolsa Família* has reached more beneficiaries, the cost of transfers under the program is 35 percent lower than BPC expenditures (Figure 14).

According to Soares (2010) the distributive impact of *Bolsa Família* was around three times greater than the distributive impact of BPC, while Paes de Barros et al. (2010) found between 30% and 50% higher effect of BF compared to BPC (Table 1). Such estimates are sensitive to

Figure 15: Evolution of Number and Value of Social Welfare Benefits, 1995-2009
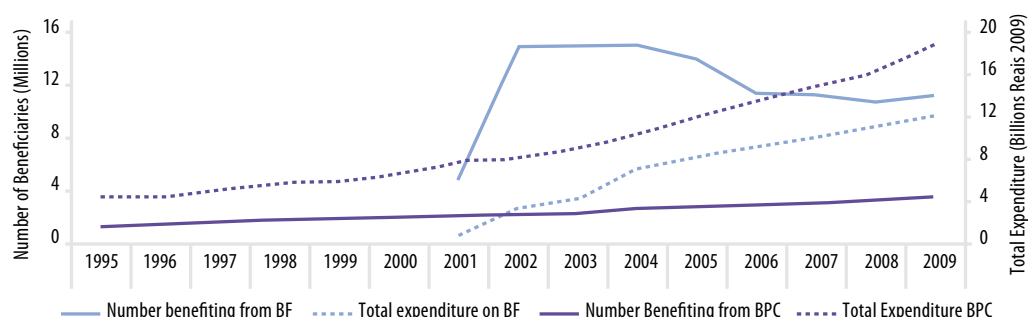
Source: Previdência Social and MDS (Ministry of Social Development and Fight against Hunger) Statistical Update. Note: The BPC excludes the monthly 'Full Life' Pensions. The Bolsa Família includes other Federal income transfer programs that are being gradually absorbed into its remit, with the exception of the PETI (Program for the Eradication of Child Labor). Data on the "new" programs is unreliable prior to 2001. Number of benefits refers to those paid out annually in the month of December.

the years chosen for the decomposition. The effectiveness of *Bolsa Família* as an instrument for reducing income inequalities is particularly noteworthy given the lower cost of the *Bolsa Família* program. Part of this difference stems from *Bolsa Família's* larger coverage as well as from its targeting: Bolsa Família benefits are more focused on the bottom of the income distribution than BPC benefits; while 48 percent of the amount transferred by Bolsa Família benefits the poorest 20 percent of the population, the BPC benefits only 10.2 percent (Barros, Carvalho and Franco, 2007).[36] Another reason why *Bolsa Família* is more progressive than BPC refers to the size of the transfer itself.[37]   The larger transfer of BPC (meant as an 'an income substitution programme' for elderly or disabled individuals in poor families) is so much higher than *Bolsa Família* (meant as an income complementation programme) "that it takes most of its beneficiaries and places them relatively high on the income distribution" (Soares et al., 2010).

Although better targeted than BPC, *Bolsa Família* is not without coverage challenges of its own. Evaluations of PNAD data show that it has proven very difficult to give priority coverage to households at the very bottom of the income strata. In 2004, of the 12.8 million households eligible to receive *Bolsa Família* and similar programs, 7.9 million collected benefits. A further 4.9 million eligible households collected no benefits. Had all eligible households received benefits from the *Bolsa Família* program in 2004, Brazil's Gini index would have fallen by a further 0.46 percentage points (Rocha 2008c). While the number of eligible households that did not receive benefits fell to 3.4 million in 2006 (due, in part, to substantial increases in income for poor families), the remaining gap between those eligible and those receiving benefits points to the difficulty of reaching the very poorest households. This will, undoubtedly constitute one of key areas in which the new *Brasil Sem Miseria* program can make strides.

Not all government transfers have reduced income inequality: some have regressive effects. The most obvious culprits for increasing income inequalities are: those benefits paid through the RGPS that exceed the minimum wage (reaching as high as a seven-fold increase over the minimum wage); and the RPSP (public servants pension system), a pension scheme for former civil servants. As shown in Table 1, social security schemes that were not tied to the minimum wage led to a 0.3 percentage point *increase* of the Gini coefficient from 1997 to 2009. The RPSP is responsible for the greatest share of the regressive effects of social security spending.[38] While

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34. In September 2009, when the retirement pension was R$465 (equal to the minimum wage), the average income of workers in rural Brazil was only R$380. It was even lower in the interior of the North-East region (R$257 or just over half of the rural retirement pension).
35. While the BPC constitutes a single amount equal to the minimum wage, the Bolsa Família monthly payments vary depending on the level of per capita household income as well as on the number of children and adolescents living at home. The maximum benefit paid out to beneficiaries in 2010 was R$200 and the minimum R$68.
36. 2005 data.
37. The BPC pays exactly one minimum wage, currently R$510, over twice the amount a family receives under Bolsa Familia (R$200) (Soares et al., 2010).
38. In 2009, the average benefit paid to beneficiaries of the federal executive branch was R$5,200 per month. The average pay out to the judiciary was R$15,400. For comments on the proposed reform of the RPSP see Caetano (2009).

the RGSP pays out approximately one million benefits each month, the RPSP pays out some 27 million benefits (MPAS, December 2009 data).

Meanwhile, the taxation system represents a missed opportunity for income redistribution. As shown in Box 3, Brazil's heavy reliance on indirect taxes disproportionately burden the poor. The current personal income tax architecture (including tax rates structure, exemption limits, and deduction rules) has no impact on income inequality, which remains at the same level before and after tax (Rocha, 2002).

Brazil's Tax System and Inequality

Brazil's tax system is characterized by a high tax burden relative to other emerging economies. In 2008, taxation accounted for 34.4 percent of GDP. A similar burden was forecast for 2010. In most other developing and emerging economies the average tax burden is below 20 percent of GDP. While Brazil's tax burden is similar to that of many developed countries, in a developing or emerging economy context, a tax burden of this size can cramp economic activity, dissuade firms from formalizing, and negatively impact the competitiveness of exports. The government temporarily reduced the burden of taxation so as to take the sting out of the 2008 global financial crisis. A pressing fiscal deficit has, however, already forced the government to start to reverse these temporary measures.

The tax burden in Brazil is also disproportionately weighted toward the poor, through a heavy reliance on indirect taxation. Around 50 percent of Brazil's total tax revenues come from taxes on goods and services. In 2006, families receiving incomes of up to twice the minimum wage paid 20.4 percent of their incomes in tax, while families in the top income bracket, with household incomes of more than 30 times the minimum wage, were subject to an effective tax burden of only 8.4 percent (Fecomércio, 2006).

Brazil's heavy reliance on indirect taxes is in marked contrast to developed countries with similar tax burdens, where there is a much greater reliance on taxes on income and profits. In 2005, direct taxes represented on average 14.4 percent of GDP in developed countries, in Brazil they were just 7.9 percent of GDP (Afonso and Barroso, 2007). The small income tax base in Brazil is due to high income inequality, but also to substantial levels of informality in the labor market. Based on data from the PNAD, around 90 percent of total household declared income was exempt from income tax. In 2005, only 22 million citizens out of an economically-active population of 91 million submitted tax returns; due to deductions and exemptions, only one third of this 22 million ultimately paid income tax.

Box 3

4

Learning and Looking Forward

4.1. Declining Income Inequality in Brazil: What We Know

Based on the observations in section 3 above, the following observations emerge regarding declining income inequality in Brazil.

Macroeconomic stabilization and the reduction of inflation have been fundamental to creating an enabling environment for inequality reduction.

The reduction of inequality in total household income per capita can be mainly attributed to changes in labor income, but transfers have also played an important role. During the period when average incomes declined (1997-2003), the negative effects on the workers in the bottom strata were less drastic than on workers higher up the distribution scale. As incomes began to recover from 2004 on, the positive distributive trend was sustained. During the entire 2001-2007 period, the changes are explained by (see Table 1)[39] :

a. An increase in contributory and noncontributory government transfers (more than 40% of the change; pensions having the largest impact).
b. A decline in wage differentials by educational level and reductions in the inequality in education caused by accelerated expansion of the educational level of the labor force (above 50% of the change).

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39. Other estimates attribute a higher share to labor income (more than 60%) using the period 1997-2009 (Soares, 2010).

c. An improvement in spatial and sectoral integration of labor markets, in particular among metropolitan and non-metropolitan areas (about 7% of the effect).

d. Lower dependency ratios driven by demographic changes at the household level. percent of the reduction of the Gini coefficient can be attributed to changes in labor income.

Concerted policy reforms have resulted in improvements in education that, in turn, were largely responsible for more equitable income distribution. The schooling profile of the labor force has changed, making relatively unskilled labor scarcer, thereby bringing down the wage premium. Average educational levels in Brazil are still relatively low, but the improvements and the increase in coverage in the last twenty years have paid off. When the average number of years spent by students in formal education reached 7 years (in 2001), educational inequality began to decline, with a consequent impact on labor income inequality. The reduction in income differentials according to workers' schooling levels reflected a relative decline of returns to skilled labor after 2001.

The real increase in the minimum wage seems to have had an effect mainly through indexed public transfers, but it does not seem to have been accompanied by a notable distortion in the labor markets. The number of workers receiving the minimum wage has not varied since 2002. People with higher education, however, make up a growing share of minimum wage earners.

Social security and pensions, the second largest source of income, accounted for an increasing share of family incomes due to expanded coverage and real increases in the average cash benefits paid out. Their distributive impact over the period was positive, despite the anomalous situation whereby their concentration coefficient exceeded the labor income concentration coefficient in 2009.

As with social security, social assistance transfers provided by federal government programs have become an important component of household incomes and, by some estimates, were responsible for more than 40 percent of the reduction of the Gini index during the 2001-2007 period (Paes de Barros, et al., 2010, Table 1). These transfers have very different distributive effects from one another, mainly due to their different scope and the value of the benefits paid. For example, the Bolsa Família seems to be more progressive than the BPC in terms of the impact of its transfers on income inequality.

4.2. Policy Lessons

Sustained inequality reduction without compromising efficiency and growth represents a principal challenge for Brazil in the near and medium-term future. While, as documented in this paper, Brazil has made important strides in reducing income inequality over the last fifteen

years, the future pace of transformation could be compromised by skills shortages if economic growth is sustained. Moreover, as Barros et al. (2010) suggest, policy interventions in the areas of education, taxation, the minimum wage, and social security transfers, ought to be designed carefully to ensure that inequality is reduced as efficiently as possible. The research on the causes of declining inequality, summarized in section 4.1 above, suggests that, in addition to enabling a stable macroeconomic environment, the following avenues represent potentially beneficial sources for sustained inequality reduction in the future.

Further reform of the education system is necessary to ensure that income from labor continues to evolve progressively. While reform to date has focused on the *quantity* of education (in particular, ensuring increased schooling for children from poorer families) reform to equalize the *quality* of education across income groups represents an important challenge for the near future. As discussed in Box 4, improvements in teacher quality, early childhood development, and the high school system, represent three principal channels for improving educational quality.

Delinking social transfers from the minimum wage will help to minimize potential distortions in the labor market and inefficiencies of social spending. The current system, which links BPC to the minimum wage, makes the minimum wage a double- edged sword, designed to achieve separate (and potentially contradictory) goals in the labor market and in social welfare. The *Bolsa Família* program offers a less potentially distorting model for targeting, based on family income criteria that are not indexed to the minimum wage (Paes de Barros, 2010, among others). By de-coupling social transfers from the minimum wage, policymakers could focus on using the minimum wage as an instrument for labor market interventions alone, thereby simplifying its purpose and minimizing the risk of distortions. However, since changes to BPC require constitutional amendment, any reform of the system will require concerted political efforts and are likely to prove contentious.

For reasons of political economy, a more practical approach would be to strengthen *Bolsa Família* and an integrated social protection system in general. Major reforms that consolidated various conditional cash transfers under the *Bolsa Família* program in October 2003 demonstrate that the Federal Government has the capacity to initiate significant overhauls of the cash transfer system. Given its superior impact as an instrument of progressive redistribution, *Bolsa Família* could be effectively expanded at relatively low cost through investments in more accurate targeting, an expansion of its client base, and adjustment of the value of payments. The recently announced *Brasil sem miseria* program, which has yet to define its instruments, faces two main challenges: identifying and incorporating those who are currently not covered by other programs; and generating productivity increases and economic opportunities for the individuals who have crossed the poverty threshold but who are still vulnerable. Addressing these issues successfully may have a further effect on the recently observed inequality decline.

Exiting Belindia?

Box 4

Critical challenges for Brazilian Education

In 2010, the level of public education spending in Brazil was comparable to that of OECD countries. While progress has been substantial, the Brazilian education system has not closed the gap in achievement with other middle income LAC and OECD countries. Three key challenges have been identified as the main priorities in the government's agenda for the coming decade: teacher quality; early childhood development; and the high school system.

Teacher Quality. In Brazil, teaching has become a low-status profession that does not attract high academic performers. Raising teacher quality in Brazil will require recruiting higher-capacity individuals, supporting continuous improvement in practice, and rewarding performance.

Early Childhood Development. In addition to continued efforts to target services to the lowest income and most vulnerable children, improvements in this subsector rest on boosting the quality of education through tailored curricula for each educational level, intense training and supervision of educators, and strengthened evaluation.

The High School System. Improvements in the quality of education at this level rest in part on infrastructure improvements to support longer school days, investment in demonstration schools that test innovations in education, and public-private partnerships for technical and vocational education that help to ensure a smooth transition between school and the workplace.

Finally, federal policy can play an important role in preserving core initiatives, encouraging spending efficiency rather than higher spending, creating incentives for state-wide improvements, and building on evidence of what works by supporting systematic evaluation of innovative state and municipal programs.

Source: World Bank (2010)

Elimination of regressive elements of the social security system should be a top priority, but such reform is highly contentious from a political economy perspective. The RPSP has been the subject of attempted reforms to the Constitution in 1998 and 2003, with two proposed amendments aimed at harmonizing the legal framework of rules and benefits between public and private sector workers.[40] These efforts encountered significant pushback in Congress resulting in delays in implementation. Moreover, since new regulations will be applied exclusively to people entering public service, the distributive impact of reform will be felt only slowly.

The minimum wage will become an increasingly tenuous tool for the reduction of labor income inequalities. The Government remains somewhat committed to increases in the minimum wage, however it is likely that at a certain point the redistributive benefits of minimum wage increases will be outweighed by predicted distortions and inefficiencies in the labor market. For instance, Firpo and Reis (2006) suggest that although real increases of minimum wages have contributed to lower wage inequalities since the mid-1990s, this policy will lose efficiency as a mechanism for inequality reduction over time.

Increases in direct taxation would have a positive distributive impact but remain politically sensitive. While Brazil's revenue collection system remains disproportionately dependent on regressive indirect taxes (Box 3), direct taxation has increased in recent years as a result of higher incomes and increased rates of formalization. Modification of the rules governing personal income tax, for instance through a more progressive tax rate and/or capping abatements for medical and educational expenditures, would result in a more progressive distribution of after tax incomes. The political obstacles to such reforms are significant, however, in a country where taxpayers consider themselves victims of the system and resistance to progressive taxation among the relatively wealthy is considerable.

Measures to improve income equalities must be accompanied by improvements in access to services and opportunities. The Human Opportunity Index (Box 1) demonstrates that most of the recent improvements in housing, health and education have been driven by the provision of opportunities to all (the scale effect), followed by changes in children's circumstances (the composition effect). By contrast, improvements in the distribution of services (the equalization effect) drove little of the improvements in Brazil. By effectively focusing on the most vulnerable groups, Brazil could improve the equitable distribution of basic service provision, creating a virtuous cycle between greater equality of income and greater equality of opportunities.

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40. Constitutional Amendment No.20, of 15/12/1998, and Constitutional Amendment No. 40 of 19/12/2003.

Annex

Table A1: Indicators for Brazil (Southeast and Northeast Regions) in 1997 and 2009

Indicators	1997			2009		
	Brazil	S.E.	N.E.	Brazil	S.E.	N.E.
Illiteracy Rate (10 yrs +)	13.9	7.8	28.0	8.9	5.2	17.0
% of Informal Employment	38.2	32.1	54.2	31.5	24.2	47.6
Average Income from Work (R$)	521	634	302	1.106	1.255	734
% Households w/o proper sewerage *	37.5	17.0	62.3	27.7	11.6	47.7
% Households w/o electricity	6.7	2.2	18.3	1.1	0.2	2.4
No. of doctors per 1000 inhabitants**	1.35	1.86	0.80	1.74	2.33	1.03
Infant mortality rate	31.9	23.6	50.4	22.5	16.6	33.2

Source: IBGE, PNAD 2009 and 1997. IBGE, DATASUS, Synthesis of Social Indicators.
* No connection to general sewage network or septic tank.
** Most recent data refers to 2007.

Table A2: Decompositions of inequality in Brazil			
Analyses	**Methodology**	**Main indicators**	**Findings**
Ferreira, Leite and Litchfield (2008)	Static decomposition of inequality by factor components, and dynamic decomposition due to changes in the mean incomes of different groups, changes in the composition of these groups, and unexplained changes.	Contribution of earnings; self-employment incomes; labor incomes of employers; social insurance transfers; capital incomes and social assistance transfers.	The decline in inequality between 1993 and 2004 appears to be associated with: a. The decline in inequality between educational subgroups. b. Income differences between urban and rural areas. c. A potential decline in racial inequalities. d. Improvements in the social transfers from the government. e. The demise of hyperinflation.
Bourguignon, Ferreira and Leite (2008)	Parametric approach to decompose the difference between two distributions into a term accounting for the effect of counterfactual distributions.	Differences in the returns or pricing structure; differences in the occupational structure; and differences in the distributions of household characteristics.	In analyzing what makes the distribution of income so unequal in 1999: a. The steeper returns to education had a substantial effect (2-5 Gini points). b. The underlying inequality in the distribution of human and non-human endowments is the main source of Brazil's excess of inequality (4-6 points).

Table A2: Decompositions of inequality in Brazil (cont.)

Analyses	Methodology	Main indicators	Findings
Barros, Carvalho, Franco, and Mendonça (2010)	Non-parametric counterfactual simulations to decompose changes in inequality due to changes in the marginal distribution of proximate determinants of inequality and its correlation with other determinants.	Changes in government transfers; changes in wage differentials by skill level; changes in labor market segmentation; and changes in the minimum wage.	In explaining the decline of inequality in Brazil since the mid-1990s, the findings suggest that such decline resulted from three main factors: a. An increase in contributory and noncontributory government transfers (more than 40% of the change; pensions having the largest impact).
Barros, Franco, and Mendonça (2007a, 2007b)	Non-parametric counterfactual simulations to decompose the contribution of changes in labor income.	Changes in labor income.	b. A decline in wage differentials by educational level and reductions in the inequality in education caused by accelerated expansion of the educational level of the labor force (above 50% of the change).
Barros, Carvalho, and Franco (2007) and Barros, Cury and Ulyssea (2006)	Non-parametric counterfactual simulations to decompose the contribution of changes in non labor income.	Changes in rents, interest and dividends; transfers from non-residents; pensions and other contributory social security benefits; and social programs.	c. An improvement in spatial and sectoral integration of labor markets, in particular among metropolitan and non-metropolitan areas (about 7% of the effect). d. Lower dependency ratios driven by demographic changes at the household level.
Foguel and Azevedo (2007)	Counterfactual simulations to decompose the contribution of changes in labor income to inequality.	Changes in: the distribution of education and experience; in the returns to them; and unobservable factors affecting the salary of workers.	The effect of unobservable and quantity components was the most important between 1995 and 2001, while the price component was almost negligible. In the 2001-2005 sub-period, however, the effect of the price component played a more important role to explain the recent decline in inequality of labor income.

References

Affonso, J. R. and R. Barroso (2007) "Brazil", in: Bernardi, L. et al. (eds) *Tax Systems and Tax Reforms in Latin America* (Pavia: Universitá de Pavia).

Albuquerque de, R.C. (2008) "Um Balanço Social do Brasil, 1970-2005", in: Velloso, J.P. and R.C. de Albuquerque (eds) *A Verdadeira Revolução Brasileira* (Rio de Janeiro: José Olympio), pp. 35-84.

Barros, R. and J.G. Reis, *undated*, "Em que Condições a Expansão do Ensino Superior Conduz à Redução da Desigualdade", mimeo.

Barros, R.P. and R. Mendonça (1997) "O *Impacto do Crescimento e de Reduções no Grau de Desigualdade sobre a Pobreza"*, Texto para Discussão No. 528, IPEA.

Barros, R.P., M. Carvalho, S. Franco and R. Mendonça (2010) "Markets, the State and the Dynamics of Inequality in Brazil" in: Lopez-Calva, L.F. and N. Lustig (eds) *Declining Inequality in Latin America. A Decade of Progress?* (Washington DC: Brookings Institution Press), pp. 134-174.

Barros, R.P., S. Franco and R. Mendonça (2007a) "A recente queda na desigualdade de renda e o acelerado progresso educacional brasileiro da última década", in: Barros, R.P., M.N. Foguel and G. Ulyssea (eds) *Desigualdade de Renda no Brasil: uma análise da queda recente*, vol. 2, (Brasília: IPEA).

Barros, R.P., S. Franco and R. Mendonça (2007b) "Discriminação e Segmentação no Mercado de Trabalho e Desigualdade de Renda no Brasil", in: Barros, R.P., M.N. Foguel and G. Ulyssea (eds) *Desigualdade de Renda no Brasil: uma análise da queda recente*, vol. 2, (Brasília: IPEA).

Barros, R.P. and L. Ramos (1992) *"A Note on the Temporal Evolution of the Relationship between Wages and Education among Brazilian Prime-age Males: 1976-1989"*, Texto para Discussão No. 279, IPEA.

Barros, R.P., M.N. Foguel and G. Ulyssea (2006) *Desigualdade de Renda no Brasil. Uma Análise da Queda Recente*, vol. 1. (Brasília: IPEA).

Barros, R.P. (2006) "A recente queda na desigualdade no Brasil: magnitude, determinantes e conseqüências", Apresentação, IPEA.

Barros, R.P. M. Carvalho and S. Franco (2007) "O Papel das Transferências Públicas na Queda Recente da Desigualdade de Renda Brasileira" in: Barros, R.P., M.N. Foguel and G. Ulyssea (eds) *Desigualdade de Renda no Brasil: uma análise da queda recente*, vol. 2, (Brasília: IPEA). Barros, R.P., S. Cury and G. Ulyssea (2006) "A desigualdade de renda encontra-se subestimada? Uma análise comparativa usando a PNAD, POF, e Contas Nacionais" in: Barros, R.P., M.N. Foguel and G. Ulyssea (eds) *Desigualdade de Renda no Brasil: uma análise da queda recente*, vol. 1, (Brasília: IPEA).

Birdsall, N., N. Lustig and D. McLeod (2011) "The Decline in Inequlity in Latin America: Some Economics, Some Politics", *Center for Global Development*.

Bourguignon, F., F.H.G. Ferreira and P. Leite (2008) "Beyond Oaxaca–Blinder: Accounting for differences in household income distributions", *Journal of Economic Inequality, 6(2), pp. 117-148.*

Bourguignon, F., F.H.G. Ferreira and M. Menendez, M. (2007) "Inequality of Opportunity in Brazil", *Review of Income and Wealth*, 53(4), pp. 585-618.

Caetano, M. A-R. (2008) "Previdência Complementar para o Serviço Público no Brasil", *Sinais Sociais*, pp. 121-148.

Datt, G. and M. Ravallion (1992) "Growth and Redistribution Components of Changes in Poverty: A Decomposition with applications to Brazil and China in 1980s", *Journal of Development Economics* 38: 275-295.

Fecomércio (2006) "Simplificando o Brasil: Tributação e Gastos Públicos", Cadernos Fecomércio de Economia, no. 11. São Paulo.

Ferreira, F.H.G. and J. Gignoux (2011) "The Measurement of Inequality of Opportunity: Theory and an application to Latin America", *Review of Income and Wealth*. Forthcoming.

Ferreira, F.H.G., P. Leite and J. Litchfield (2008) "The Rise and Fall of Brazilian Inequality: 1981-2004", *Macroeconomic Dynamics*, 12(S2), pp. 199-230.

Ferreira, F.H.G., P. Leite and M. Ravallion (2010) "Poverty Reduction without Economic Growth?

Explaining Brazil's Poverty Dynamics, 1985-2004", *Journal of Development Economics*, 93(1), pp. 20-36.

Firpo, S. and M. Reis (2006) "O salário mínimo e a queda recente da desigualdade no Brasil", in: Barros, R.P. M.N. Foguel and G. Ulyssea (eds) *Desigualdade de Renda no Brasil. Uma Análise da Queda Recente*, vol. 1. (Brasília: IPEA), pp. 479-506.

Fishlow, A. (1973) "Distribuição da Renda do Brasil: Um Novo Exame." Dados, 11, pp. 10-80.

Foguel, M.N. and J.P. Azevedo (2007) "Uma Decomposição da Desigualdade de Rendimentos do Trabalho no Brasil: 1995-2005" in: Barros, R.P., M.N. Foguel and G. Ulyssea (eds) *Desigualdade de Renda no Brasil: uma análise da queda recente*, vol. 2, (Brasília: IPEA).

Foguel, M.N., C.H. Corseuil, R.P. Barros and P. Leite (2000) "Uma Avaliação dos Impactos do Salário Mínimo sobre o Nível de Pobreza Metropolitana", Texto para Discussão No. 739, IPEA.

Giambiagi, F. (2007) Brasil. *Raízes do Atraso* (Rio de Janeiro: Editora Campus).

Hassan, A. and J. Molinas Vega (2010) "The Human Opportunity Index for Brazil in International Context", The World Bank, Latin America and the Caribbean Regional Office.

Hoffmann, R. (2003) "A contribuição das aposentadorias e do rendimento agrícola para a desigualdade do rendimento domiciliar per capita no Brasil", in Benecke, D.W. and R. Nascimento (eds) *Política social preventiva: desafio para o Brasil* (Rio de Janeiro: Konrad Adenauer Stiftung).

Hoffmann, R. (2009) "Desigualdade de Distribuição de Renda no Brasil: A Contribuição de Aposentadorias e Pensões e de Outras Parcelas do Rendimento Domiciliar per capita", *Economia e Sociedade*, v. 18, n. 1 (35), pp. 213-231.

Hoffmann, R. (2004) "Decomposition of Mehran and Piesch inequality measures by factor components and their application to the distribution of per capita household income in Brazil", *Brazilian Review of Econometrics*, 24(1), pp. 151-178.

Hoffmann, R. (2001) "Income Distribution in Brazil and the Regional and Sectoral Contrasts", in: Guilhoto, J. and G. Hewings (eds) *Structure and Structural Change in the Brazilian Economy* (London: Ashgate).

Hoffmann, R. (2010) *"Estatísticas de renda a partir da PNAD 2009"* (unpublished results).

Juhn, C., K. M. Murphy and B. Pierce, "Wage Inequality and the Rise in Returns to Skill." *Journal of Political Economy*, 1993, 101(3), 410-442.

Lam, D. and D. Levinson (1991) "Declining inequality in schooling in Brazil and its effects on

inequality in earnings", *Journal of Development Economics*, 37(1-2), pp. 199-225.

Langoni, C. (1973) *Distribuição de Renda e Desenvolvimento Econômico* (Rio de Janeiro: Expressão e Cultura).

Lopez-Calva, L.F., N. Lustigand E. Ortiz-Juarez (2011) "Declining inequality in Latin America: How Much, How Long and Why?", Working paper, Tulane University. Forthcoming.

Medeiros, M., M. Carvalho, R.P. Barros, and S. Scares (2006) "Sobre a Recente Queda da Desigualdade de Renda no Brasil", in: Barros, R.P., M.N. Foguel and G. Ulyssea (eds) *Desigualdade de Renda no Brasil: uma Análise da Queda Recente*, vol. 1. (Brasilia: IPEA), pp.15-85.

Menezes-Filho, N. (2001a) "Educação e Desigualdade", in: Menezes-Filho, N. and Lisboa, M. (eds) *Microeconomia e Sociedade no Brasil*, (Rio de Janeiro: Contra Capa), pp. 13-50.

Menezes-Filho, N. (2001b) *A Evolução da Educação no Brasil e seu Impacto no Mercado de Trabalho* (São Paulo: Instituto Futuro Brasil).

Menezes-Filho, N. and L. Scorzafave (2009) "Employment and Inequality of Outcomes in Brazil", Working Paper 200, IBMEC/INSPER.

Menezes Filho, N., R. Fernandes and P. Picchetti (2007) "Educação e Queda da Desigualdade no Brasil", in: Barros, R.P., M.N. Foguel and G. Ulyssea (eds) *Desigualdade de Renda no Brasil: Uma Análise da Queda Recente*, vol. 2. (Brasília: IPEA), pp. 285-304.

Ministério da Previdência e Assistência Social. *Anuário Estatístico da Previdência*, diversos anos.

Ministério da Previdência e Assistência Social. *Boletim Estatístico da Previdência Social*, 2009, diversos meses.

Molinas Vega, J. and R. Paes de Barros (2010) "Human Opportunities for Children in Brazil: An Assessment with the Human Opportunity Index", The World Bank, Latin America and the Caribbean Regional Office.

Ram, Rati (1990) "Educational Expansion and Schooling Inequality: International Evidence and Some Implications", *The Review of Economics and Statistics*, 72, pp. 266-274.

Ramos, L., and J.G.A. Reis (1994) "Minimum Wage, Income Distribution and Poverty in Brazil", Texto para Discussão no. 359, IPEA.

Ramos, L. (2006) "Desigualdade de Rendimentos do Trabalho no Brasil, de 1995-2005", in: Barros, R.P., M.N. Foguel and G. Ulyssea (eds) *Desigualdade de Renda no Brasil: Uma Análise da Queda Recente*, vol. 1. (Brasilia: IPEA), pp. 267-284.

Ravallion (2009) "Why Don't We See Poverty Convergence?" *Policy Research Working Paper* 4974, World Bank, Washington, DC.

Rocha, S. (2010) "Crescimento Econômico e Renda. Como ficam os pobres?", in: Velloso, J.P.R. (ed) *Consolidando o Crescimento com Inclusão Social* (Rio de Janeiro: José Olympio), pp. 321-346.

Rocha, S. (2008a) "A Evolução do Programa Bolsa-Família Brasileiro. Funcionamento e Impactos sobre a Pobreza", Occasional Papers, Latin American Center, University of Oxford.

Rocha, S. (2008b) "A inserção dos jovens no mercado de trabalho", *Caderno* CRH, 21(54), pp. 533-549.

Rocha, S. (2008c) "Transferências de Renda Focalizadas nos Pobres – O BPC versus o Bolsa Família", *Sinais Sociais*, *Sep-Dec*, pp. 151-186.

Rocha, S. (2006) "Os Novos Programas de Transferência de Renda. Impactos possíveis sobre a desigualdade no Brasil", in: Barros, R.P., M.N. Foguel and G. Ulyssea (eds) *Desigualdade de Renda no Brasil. Uma Análise da Queda Recente*, vol 1. (Brasilia: IPEA), pp. 131-145.

Rocha, S. (2002) "O Impacto Distributivo do Imposto de Renda sobre a Desigualdade de Renda das Famílias", *Pesquisa e Planejamento Econômico*, 32(1), pp. 73-105.

Rocha, S. (1997) "Crise, Estabilização e Pobreza: a Evolução no Período 1990 a 1995", *Conjuntura Econômica*, 51(1), pp. 23-26.

Rocha, S. and R.C. de Albuquerque (2007) "Pobreza Extrema no Rio de Janeiro - Uma Espacialização Alternativa", *Econômica*, 9(1), pp. 63-88.

Rocha, S. and R.C. de Albuquerque (2006) "A Questão do Emprego: mais ocupação e renda com justiça social", in: Velloso, J.P.R. (ed) *Projeto de Brasil, opções de país, opções de desenvolvimento* (Rio de Janeiro, José Olympio Editora), pp. 120-155.

Schwarzer, H. and A.C. Querino (2002) "Non-contributory pensions in Brazil: The impact on poverty reduction", ILO/ESS Paper, No. 11.

Soares, S. (2010) "Distribuição de Renda entre 1995 e 2009", Comunicado IPEA, No. 63, IPEA.

Soares, S. (2006) "Distribuição de Renda no Brasil de 1976 a 2004 com ênfase no período entre 2001 e 2004", Texto para Discussão No. 1166, IPEA.

Soares, S. (2002) "O Impacto Distributivo do Salário Mínimo: a Distribuição Individual dos Rendimentos do Trabalho", Texto para Discussão No. 873, IPEA.

Soares, S., R. Perez Ribas and F. Veras Soares (2010) "Targeting and Coverage of the Bolsa Família Programme: Why Knowing What You Measure is Important in Choosing the Numbers", IPC Working Paper, No. 71.

Ulyssea, G. and M.N. Foguel (2006) "Efeitos do Salário Mínimo sobre o Mercado de Trabalho Brasileiro", Texto para Discussão No. 1168, IPEA.

Wajnman, S., C.M. Turra and C.S. Agostinho (2006) "Estrutura Domiciliar e Distribuição de Renda no Brasil", in: Barros, R.P., M.N. Foguel and G. Ulyssea (eds) *Desigualdade de Renda no Brasil: uma Análise da Queda Recente*, vol. 1., (Brasília: IPEA), pp.423-442.

World Bank (2011) "A Break with History: Fifteen Years of Inequality Reduction in Latin America", LAC Poverty and Labor Brief.

World Bank (2010) "Achieving World Class Education in Brazil: The Next Agenda", Human Development Sector Management Unit, Latin America and the Caribbean Regional Office.

In 1974, the Brazilian economist, Edmar Lisboa Bacha, wrote "O Rei Da Belindia: Uma Fabula para Tecnocratas". Brazil was then, as has been the case historically, one of the countries with the highest income inequality in the world. **Belindia** was the name of the mythical kingdom where one could find standards of living comparable to those of affluent Belgium, alongside levels of deprivation similar to those observed in the poorest regions of India. The implicit criticism in Bacha's widely cited story is clear: growth is not always enough for social advancement. From a normative perspective, it should be accompanied by reductions in poverty and inequality.

Brazilian society seems to have internalized this message.   Under a democratic mandate, the government has responded by facilitating growth while taking important steps to reduce inequalities in many dimensions. The recent improvement in the distribution of income in Brazil is fundamentally a result of good policy. The World Bank offers this overview of the Brazilian experience as a vehicle of knowledge dissemination. The inequality fable aforementioned may very well apply to the Latin America and Caribbean region as a whole. The aim is that lessons drawn from experiences like this one can contribute to pave the road out of *Belindia*.

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