INFORMALITY IN COLOMBIA
Implications for Worker Welfare and Firm Productivity

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Colombia and Mexico Country Management Unit
Human Development Department
Latin America and the Caribbean Region

Document of the World Bank
PREFACE

This report is the product of a three-stage process in Colombia involving a broad range of actors from Government, civil society, and the World Bank. The overall process aims to develop new data, new ideas, new analysis, new partnerships, and new procedures to tackle the issue of informality. The process has included World Bank support for the design of an enriched survey instrument to facilitate the availability of new and richer data on informality, deeper analysis of the issue and related policy questions, as well as dialogue on effective approaches to addressing the issue. This report is one product of this broader partnership and is designed to help refine the policy dialogue and future policy actions by the Government of Colombia.

The process began with an invitation from National Planning Department (DNP) for the Bank to work in partnership with the Government to better understand the issue of informality in Colombia. This was followed by the assembly of a tripartite working group to focus on the issue. The working group included: (i) Government actors (representatives from DNP, the Ministry of Social Protection (MSP), the Ministry of Finance and Public Credit (MHCP), and the Department of Statistics (DANE); (ii) a team of researchers from private think tanks and universities in Colombia, including Fedesarrollo and the University of Los Andes; and (iii) a World Bank team, comprising experts in the areas of social protection, labor markets, private sector development, and civil society collaboration. Once the tripartite group was assembled, the work was carried out in the following stages:

Stage 1: Data Creation. The objective of the first stage was to strengthen existing surveys to provide better, more detailed information to the Government on the nature of informality in Colombia. The idea was to add questions to the Household Survey (Encuesta Continua de Hogares, ECH) that would permit regular tracking of the size, dynamics, and welfare implications of formal and informal employment, as well as reasons for workers’ choices. The process involved extensive collaboration among DANE, DNP, MSP, researchers from the private sector, and the Bank team to define and test the additional questions and to implement the revised survey. The result of Stage 1 was the permanent integration of nearly 40 new questions into the ECH focused on informal employment, making Colombia’s survey one of the richest instruments in Latin America for tracking and analyzing labor informality.

Stage 2: Analysis. The objective of this stage was to analyze the new data produced during Stage 1, as well as data from other existing data sets, focus groups, and key informant interviews, in order to deepen policymakers’ understanding of: (i) the causes and consequences of informality; and (ii) promising ways to increase welfare and productivity in Colombia. The analytical process involved the contracting of academics and policy researchers in Colombia to carry out specific analyses on a number of issues, including (i) how best to define informality; (ii) the size of the informal sector; (iii) the reasons workers and firms are informal (including the role of public policies, programs, and legislation); (iv) the welfare implications of informality; and (v) policies and programs that could improve the current situation. This stage also included a series of regular meetings among Government actors, policy researchers, and the Bank team, to discuss the preliminary findings, and debate and shape the key messages coming out of the analysis. This report represents the product of this stage of the process.

Stage 3: Policy Dialogue. The objective of this stage is to use the findings and policy directions identified in this report to engage a broader constituency in Colombia in a dialogue on informality and public policy. This stage began with a meeting of the tripartite working group to discuss the preliminary lines of policy emerging from the analysis. The meeting resulted in some useful feedback that has been incorporated into this report. While Government representatives have formed part of the core team throughout the study process, it will still be important to involve other actors within the Government – as well as a broader range of non-governmental stakeholders – in the policy dialogue. This stage of the work
included a workshop in the spring of 2008 and follow-up discussions with broader groups of stakeholders – including from civil society – to continue to refine the policy messages presented here, to clarify what is feasible within the current policy (and political) environment, and to begin the process of transforming ideas into action. The results of this policy dialogue are reflected in this version of the report, which incorporates the lessons from the workshop and stakeholder meetings.

It is intended that the content of this report will contribute to a fourth stage: that of policymaking in Colombia. It is hoped that the report will be used as a reference guide and a tool for dialogue, as the Government and civil society work to transform ideas, analysis, and learning into policies to increase worker welfare and firm productivity in the face of informality. In addition to directly affecting the policy dialogue on informality in Colombia, it is also envisioned that the contents of this report will also contribute critical analytical inputs into several policy papers (*Consejo Nacional de Política Económica y Social,* CONPES) that are currently being developed by DNP on employment and income generation for the poor and on strengthening social protection policy.
## ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>BEPs</td>
<td>Beneficios Económicos Periódicos</td>
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<tr>
<td>CAES</td>
<td>Centros de Atención Empresarial</td>
</tr>
<tr>
<td>CCFs</td>
<td>Cajas de Compensación Familiar (Mutual Benefit Societies)</td>
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<td>CCT</td>
<td>Conditional Cash Transfers</td>
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<tr>
<td>CIDER</td>
<td>Interdisciplinary center of Regional studies</td>
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<tr>
<td>CIMO</td>
<td>Program of Comprehensive Quality and Modernization</td>
</tr>
<tr>
<td>CONPES</td>
<td>Consejo Nacional de Política Económica y Social</td>
</tr>
<tr>
<td>DANE</td>
<td>Departamento Administrativo Nacional de Estadística</td>
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<td>DIAN</td>
<td>National Direction of Taxes and Tariffs</td>
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<td>DNP</td>
<td>National Planning Department</td>
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<tr>
<td>ECH</td>
<td>Encuesta Continua de Hogares</td>
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<td>EPS</td>
<td>Entidades Promotoras de Salud</td>
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<tr>
<td>ESF</td>
<td>Encuesta Social de Fedesarrollo (Panel Survey)</td>
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<td>FSP</td>
<td>Fondo de Solidaridad Pensional (Solidarity Pension Fund)</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GEIH</td>
<td>Gran Encuesta Integrada de Hogares</td>
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<tr>
<td>ICBF</td>
<td>National Childcare System</td>
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<td>ILO</td>
<td>International Labour Organization</td>
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<tr>
<td>IMSS</td>
<td>Instituto Mexicano de Seguro Social (Mexican Social Security Institute)</td>
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<td>ISS</td>
<td>Instituto de Seguro Social</td>
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<td>MHCP</td>
<td>Ministry of Finance and Public Credit</td>
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<tr>
<td>MSMES</td>
<td>Micro, Small and Medium Enterprises</td>
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<tr>
<td>MSP</td>
<td>Ministry of Social Protection</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>PADE</td>
<td>Programa de Apoyo Directo al Empleo</td>
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<tr>
<td>PASIS</td>
<td>Social Assistance Pension</td>
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<tr>
<td>PILA</td>
<td>Planilla Integrada de Liquidaciones de Aportes (Integrated Contributions Payment System)</td>
</tr>
<tr>
<td>POS</td>
<td>Plan Obligatorio de Salud</td>
</tr>
<tr>
<td>PPSAM</td>
<td>Programa de Protección Social al Adulto Mayor</td>
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<tr>
<td>SARE</td>
<td>Sustainable Agriculture Research and Education</td>
</tr>
<tr>
<td>SENA</td>
<td>Servicio Nacional de Aprendizaje (National Training System)</td>
</tr>
<tr>
<td>RAU</td>
<td>Unified Farming Regime</td>
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<tr>
<td>RTI</td>
<td>Integrated Tax System</td>
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<tr>
<td>RTS</td>
<td>Simplified Taxing Regime</td>
</tr>
<tr>
<td>RUAF</td>
<td>Registro Único de Afiliados al Sistema Integral de Seguridad Social.</td>
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<tr>
<td>SISBEN</td>
<td>Sistema de Selección de Beneficiarios (System of Beneficiary Selection)</td>
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<td>SMES</td>
<td>Small and Medium Sized Enterprises</td>
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<tr>
<td>SUS</td>
<td>Single Health System</td>
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<tr>
<td>UPC</td>
<td>Unidad de Pago por Capitación</td>
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<tr>
<td>VAT</td>
<td>Value Added Taxes</td>
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<td>WDI</td>
<td>World Development Institute</td>
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The findings, interpretations, and conclusions expressed in this document are those of the team and do not necessarily reflect the views of the Executive Directors of The World Bank, the governments they represent, or the counterparts consulted or engaged with during the informality study process. Any factual errors are, as well, the responsibility of the team.
Executive Summary

Introduction

Colombia has resilient informality rates despite high levels of growth...

1. The level of informality in Colombia’s labor market is high and persistent. When measuring informality of workers in terms of their contributions to health insurance and pension systems, 74.2 percent of all Colombian labor force was considered informal in 2008. The informality debate has taken on a new sense of urgency, as Colombia’s robust economic growth in recent years has not led to significant declines in informality. Even during the period of high economic growth experienced between 2001 and 2007, the share of workers in the informal sector remained very high.

... which raises concerns related to workers’ welfare, firm productivity and fiscal sustainability.

2. Concerns about Colombia’s large and persistent informal sector have been front-and-center in discussions among the nation’s policymakers, for several reasons: First, informality has implications for the welfare of workers and their families. Indeed, informal workers commonly lack access to a range of formal social protection services and benefits, which leaves them exposed to a variety of shocks that can adversely affect the well-being of them and their families. Second, informality has implication for firm productivity and growth. Indeed, informal firms may be unable to access credit, larger sales or product markets, and sources of innovation, causing them to operate at a suboptimal scale. In addition, a large concentration of workers in informal firms may also have adverse effects on long-term productivity growth, as risk-averse workers that are not insured against health shocks or old age may have lower productivity and fewer incentives to invest in human capital and other assets. Finally, informality is closely linked with fiscal sustainability and the functioning of the State. Indeed, workers and firms operating in the informal sector do not contribute through payroll (and other) taxes, which can undermine the State’s ability to provide sufficient public goods and services for all.

This report proposes a framework and new insights to better understand informality and its policy implications...

3. This report presents new insights to develop a better understanding of the nature, causes, and consequences of informality and its implications for social policies. It makes some important contributions to the debate, including:

- A consistent conceptual framework. The study analyzes informality using the conceptual framework presented in the World Bank flagship study on informality (Perry et al 2007), which shows that informality in the region is a function of both exclusion and exit, with some workers and firms opting out of the formal sector based on their assessment of the relative benefits and costs of formality versus informality.

- The analysis of rich data sources, both quantitative and qualitative, to refine the understanding of the patterns of informality, including the reasons for exclusion and voluntary exit from the formal sector. These data sources include: (1) new household survey data, collected with a new module on informality specifically designed for this study, as part of the 2006 integrated Household Survey (Encuesta Continua de Hogares, ECH); (2) firm data from several enterprise surveys, including the 2001 Encuesta “123” and microenterprise surveys carried out by DANE between 2000 and 2003; and (3) qualitative data on worker informality collected through focus groups and key informant interviews carried out by a team of researchers from the Interdisciplinary Center of Regional Studies (CIDER), at the University of Los Andes.
4. This executive summary first lays out the conceptual framework and the measurement used in this report and places informality in Colombia in a broader regional context. Next, the summary discusses the characteristics of informal workers, the causes of informality, and its welfare implications. Third, the document turns to the patterns of firm informality, as well as its causes and consequences. Finally, the document proposes a series of directions for public policy, to enhance workers’ welfare, improve firm productivity and strengthen State institutions.

**Conceptual Framework – Exit and Exclusion – and associated measures**

*Analyzing informality as a function of “exit” as well as “exclusion”...*

5. To help clarify the nature of informality in Colombia, the report adopts the conceptual framework developed in the World Bank flagship report, *Informality: Exit and Exclusion* (Perry et. al 2007). The framework focuses on informality as a function both of economic “exclusion” and of firm and worker “exit” from the formal sector. The concept of “exclusion” reflects the way informality has been traditionally viewed in Latin America: that informal workers and firms would generally prefer to be formal – registering with the authorities, paying taxes, having access to social security – but are prevented from doing so for reasons related to the state of the economy, the functioning of the labor market, or the regulatory environment. The concept of “exit”, by contrast, posits that some workers and firms are informal as a matter of choice. That is, some workers and firms, having considered the benefits and costs of formality, opt out of the formal sector. Given the benefits and costs (real or perceived) and existing opportunities and constraints, these workers and firms actually prefer informality.

...provides new insights and reveals additional policy levers.

6. As is shown in the report, a framework focused on both exit and exclusion captures reality better than the more traditional framework focused only on exclusion. The insights generated by the framework are also important for policy. By thinking in terms of exclusion and exit, policymakers can design policies and programs that address both routes to informality. By doing so, policymakers can be more effective in raising workers’ welfare and promoting firms’ productivity.

*While there are a number of possible measures of informality...*

7. Finding a suitable measure of informality in Colombia is challenging, as the literature contains a number of definitions and measures that one could choose from. The most commonly used measure in Colombia is based on the International Labour Organization (ILO) definition, which focuses on employees and employers working in firms with less than 10 workers, as well as unpaid family workers, domestic household workers, and self-employed individuals who are not professionals or technicians. An underlying assumption of this definition is that people working in small or household-based production units face more precarious employment situations, and that informality is somehow less significant among medium or large enterprises. Such assumptions need to be made with care, however. A recent study of informality in Latin America showed that roughly one-quarter of all workers without access to social security work in firms with 10 or more employees.

... the definition for the framework of exit and exclusion is related to welfare and productivity.

8. The focus of this report is on exploring options to enhance worker welfare and firm productivity through access to public goods and services, including social protection and productive inputs. Hence, the report adopts definitions and measures of informality – separate measures for workers and firms – that
directly capture the extent to which they are linked to the State and, thus, to public goods and services. Specifically:

- A worker is considered informal if he or she does not make contributions to Colombia’s contributory health insurance and pension programs as part of their job.¹
- A firm is considered informal if it does not meet certain obligations to the State, for example, registering, paying taxes, or paying social security contributions for its workers.

9. One important benefit of these measures is that they closely link informality to the policy variables of interest in this study. As importantly, these measures capture better the risks and challenges faced informal workers firms independent of the size of the production unit.

**Overall levels of informality in Colombia in a broader regional and global context**

Colombia experiences relatively high levels of informality ...  

10. The level of informality in Colombia is found to be relatively high by international standards, at least in relation to the country’s level of per capita GDP. Cross-country analysis demonstrates a consistent negative relationship between countries’ GDP per capita and informality; as national incomes rise, informality tends to fall. This analysis shows that informality in Colombia is higher than would be expected given its level of GDP per capita, both when compared with other with Latin American countries and more generally with the rest of the world. While within Latin America, Colombian informality is only slightly higher than would be expected (Figure 1), analysis of global data suggests that informality in Colombia is about 20 percentage points higher than would be expected given its GDP.

**Figure 1: Informality in Latin American, by per capita GDP**
(early 2000s; measured as share of labor force not contributing to social security)

Sources: Rofman and Luchetti (2006), *World Development Indicators*.

¹ The definition selected in this report links informality to certain elements of workers’ welfare (access to health insurance and old-age pension). This does not suggest that these are the only elements of quality of employment, as other characteristics related to stability, working conditions, etc., are equally important dimensions of job quality.
11. Using measures of informality in enterprise, the level of informality in Colombia is generally similar to that of other medium and large Latin American countries. Schneider (2007), for instance, estimates that the “shadow economy” – which he defines as including “all market-based legal production of goods and services that are deliberately concealed from public authorities” – represents about 43 percent of Colombia’s GDP. This is compared to 42 percent for Brazil, 58 percent for Peru, 32 percent for Mexico, and 27 percent for Argentina (Figure 2).

![Figure 2: Shadow Economy as Percent of GDP (2004-2005)](chart)

Source: Data from Schneider (2007).

Who are the informal workers and what are their characteristics?

*Three-quarters of the Colombian labor force does not contribute to health insurance and pension ...*

12. Building on the exit and exclusion framework and the definition of worker informality linked to health insurance and pension contributions, data from the 2006 ECH survey indicate that 74.2 percent of all Colombian workers are informal, defined as those who do not contribute to health insurance and pensions as part of their job (Table 1).

<table>
<thead>
<tr>
<th></th>
<th>Total Labor Force</th>
<th>Employees</th>
<th>Self-employed Workers</th>
<th>Employers</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>74.2</td>
<td>56.6</td>
<td>95.6</td>
<td>90.3</td>
</tr>
<tr>
<td>Urban</td>
<td>68.8</td>
<td>49.9</td>
<td>94.4</td>
<td>86.1</td>
</tr>
<tr>
<td>Rural</td>
<td>90.5</td>
<td>80.9</td>
<td>99.1</td>
<td>99.2</td>
</tr>
</tbody>
</table>

Source: Adapted from Bernal, 2007

1 Labor force” is defined here to include employees, self-employed workers, employers, unpaid family workers, and “other” unspecified workers, as reported in the 2006 ECH survey.

... with even higher levels among self-employed and rural workers.

13. Using this definition, informality is found to be particularly high among self-employed workers, with only 4 percent of self-employed belonging to the formal sector (i.e. paying health and pension contributions) at the national level. While still high, informality among employees (i.e., salaried workers) is considerably lower, around 56.6 percent at the national level. Moreover, informality is considerably higher in rural than in urban areas. Specifically, 90.5 percent of all rural workers are informal compared to 68.8 percent of all urban workers. As can be seen from the figure, urban employees have the lowest
incidence of informality, at 49.9 percent, while rural, self-employed workers have the highest incidence of informality. In terms of the composition of the total informal labor force, nearly half of all informal workers are self-employed while another 40 percent are informal employees. Unpaid workers and employers make up much smaller shares of the informal workforce – about 5 percent each. They are not shown in the table, due to their relatively small shares in the overall labor force.

*Informality is particularly high among those with low education, younger (and older) workers, women, indigenous groups and Afro-Colombians.*

14. Groups with certain personal characteristics are more likely to be informal. For example, workers with low levels of education are significantly more likely to be informal than those with higher levels of education. Age is also an important factor associated with informality – although its association varies across the lifecycle. Gender also appears to be an important factor affecting whether one works in the formal or informal sector. Indeed, women have a higher likelihood of being informal, all other things being equal. Race and ethnicity also play a role; both indigenous groups and Afro-Colombians face a relatively high probability of being informal, controlling for other factors.

*The relationship between age, informality and mobility is complex.*

15. Overall, as presented in Figure 3, there is a U-shaped pattern of informal employment over the life cycle. Levels of informality start high amongst young people (97 percent of workers aged 15-18 are informal self-employed, employees or unpaid workers), decreasing amongst working age adults and increasing again amongst the older groups (79 percent of those over the age of 45 are informal).

**Figure 3: Share of the Workforce across Sector-Job Types, by Age Category**

![Figure 3: Share of the Workforce across Sector-Job Types, by Age Category](image)

Source: Adapted from Bernal (2007)

16. The patterns of informality change over the life cycle. Indeed, young people commonly start their working lives as unpaid family workers or as informal employees. As they get older and gain more experience, young workers often use informal salaried work as a stepping stone to formal employment. However, for those who enter the workforce at a very young age, and with limited education, the transition to the formal sector is less frequent.

17. Older workers experience the highest levels of informal self-employment (about 47 percent of workers aged 45 or more) as well as declining formal salaried employment. Rates of transition from formal to informal sector work are also highest among older workers (whereas transitions from informal to formal sector work are greatest for prime-aged workers). Some older workers move back to the
informal sector, this time as self-employed workers, having accumulated skills, labor market connections, and perhaps financial capital, which allow them to start their own firms. Some of the exit from formality can therefore be an explicit choice by some workers in this age group. It is important to note, however, that even if the return to informality is chosen, informality during the later part of the working life can be associated with a loss of entitlements. In particular, truncating the period of contribution to pension funds can result in loss of an annuity upon retirement. In addition, interrupting health insurance payments can limit access to health services which become more critical in old age.

*Education is one of the strongest predictors of informality once other factors are controlled for.*

18. The likelihood of a worker being informal declines substantially with education. Indeed, informality is much more closely associated with education than with the innate characteristics of gender, age, or race/ethnicity. Nearly all workers with incomplete secondary schooling or less are informal. This compares to 74 percent of those with completed secondary and 42 percent of those with complete college education. These findings suggest that efforts to strengthen workers’ human capital will contribute not only to higher workers’ welfare and productivity, but also to greater access to formal sector jobs.

19. However, as will be discussed later, a substantial proportion of those with relatively high levels of education still work in the informal sector. This seems to be more frequently the result of their choice than in the case of workers with less education. It is important to note that nature of informal self-employment also likely differs in important ways by education level, where the least educated generally hold more precarious, low-productivity jobs, while the most educated are more likely consultants or professionals who own their own firms, but who choose not to pay into the pensions and health systems for themselves.

*Worker informality in Colombia is a function of both exclusion and exit.*

20. The analysis of quantitative and qualitative data suggests that both “exclusion” and “exit” play an important role in worker informality in Colombia. Indeed, analysis of wage and employment trends suggests that many workers who would like formal sector jobs are “rationed” out of the formal sector due to labor market segmentation. This is also reflected in self-reported data from the ECH on why informal employees and self-employed workers work in their current jobs. Over 45 percent of informal employees and roughly 55 percent of informal self-employed workers indicate that they are in their current jobs because it was “the only job they could get.” Similarly the analysis indicates that at least some informal workers would be willing to pay to access social security if they could.

21. At the same time, a significant proportion of workers, particularly informal self-employed workers, appear to be in their jobs as a matter of choice (i.e., for reasons of “exit”). About 44 percent of all informal self-employed workers indicate, for example, that they would not accept salaried employment *with benefits*, even if they could obtain those benefits at no cost. Consistent with the idea of exit, a substantial proportion of informal self-employed workers report being in their current jobs for positive reasons, such as higher pay, better job prospects, greater job flexibility, or because they want to run their own firm and be their own boss.

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2 It should be noted that not all older workers leave formal sector by choice. A study of the self-employed in Mexico finds that approximately 85 percent of self-employed workers in that country say they prefer being self-employed to being a salaried worker. Nonetheless, the other 15 percent who say that this type of employment is their only option are concentrated among older workers (Cunningham and Maloney, 2001).
On average, the welfare of informal workers is low relative to that of formal workers.

22. Even if a significant share of workers chooses to opt out of the formal sector, policymakers do have justifiable concerns about informal workers’ welfare, at least on average. A range of indicators suggests that formal workers and, particularly, formal employees, have higher levels of welfare than do informal workers. Formal workers tend to have higher earnings than informal workers, even controlling for differences in education. Formal employees also report the highest levels of job satisfaction, controlling for other factors. In addition, formal workers generally report less desire to change jobs than informal workers, whether related to the desire for higher incomes, more permanent work arrangements, or greater job stability. As with education, there are noteworthy exceptions to this pattern, however, as 11 percent of informal self-employed workers are amongst the highest earners in Colombia.

There is greater movement in and out of informality than has generally been thought.

23. It has generally been assumed that informal workers tend to stay informal throughout their working lives. The evidence suggests that there is greater worker mobility than typically thought. There are clear patterns of movement in and out of the informal sector across different phases of workers’ lifecycles, as noted above. Evidence on shorter-term work transitions also suggests that movement in and out of the informal sector is not uncommon. For example, nearly one-quarter of urban workers who are currently formal report having worked in the informal sector in their last job, while about one-fifth of urban workers who are currently informal report having worked in the formal sector in their last job. Over one-third of rural workers, who are currently formal, report working in the informal sector in their last job, while 5 percent of informal workers in rural areas came to that job from the formal sector. There patterns are more or less comparable with what is seen elsewhere in Latin America and, as will be discussed further below, have important implications for the design of social protection.

Do current policies contribute to worker informality?

In addition to workers’ characteristics, policy-related factors can also affect informality

24. While informality clearly affects workers’ access to social protection, the evidence also indicates that the design and implementation of certain public policies – particularly in the areas of labor regulation and social protection policy – contribute to informality in Colombia, even if inadvertently. The evidence shows, for example, that high non-wage costs of formal employment and Colombia’s minimum wage are important segmenting forces in the labor market. They can contribute to higher levels of informal employment, by rationing some workers out of the formal sector. That is, Colombia’s non-wage costs and minimum wage contribute to informality via the route of “exclusion”. In addition, several features of the design of social protection affect the relative benefits and costs of social security that workers perceive. In doing so, these design features can affect workers’ decisions about whether to be formal or informal. By affecting the net benefits that workers’ observe, these features of Colombia’s social protection system appear to contribute to informality via the route of “exit”.

Comparisons of earnings need to be interpreted with caution, as unobserved factors could affect the findings. Nonetheless, these are consistent with other indicators of relative welfare, including job satisfaction, desire to change jobs, and analysis of compensating differentials.
The Colombian labor market appears to be segmented

25. A recent World Bank study (2005) found significant evidence of labor market segmentation in Colombia between 1994 and 2004, which created barriers to entry into the formal sector for some workers who would have preferred formal employment. Figure 4 plots the relative sizes of the salaried and self-employed groups, and their relative wages in urban Colombia for the period 1984-2006. The data show that the labor market has experienced significant levels of segmentation since about 1994, after which the two data series move in opposite directions, indicating that some factor or factors generated some rigidity that implied more segmentation in the labor market. This coincides with the reform of the social security system – Law 100 of 1993, which substantially raised social security contributions. Prior to 1994, the trends are not very clear, except perhaps between 1991 and 1994. During that (expansionary) period, both series appear to move together, suggesting some degree of integration (or at least no evidence of segmentation). Before 1991, there seems to be weak movement in opposite directions, but too weak to be able to draw strong conclusions one way or another.

![Figure 4: Evolution of Relative Sector Size and Wages (Salaried/Self-employed)](source: World Bank 2005, Oliveira 2007.)

This segmentation affects all workers, except the most skilled ones.

26. Disaggregating the analysis according to workers’ education levels (primary, secondary incomplete, secondary, tertiary, and college level), all workers, with the exception of the most highly skilled workers, appear to be affected by labor market segmentation. Moreover, visual inspection of the data suggests that segmentation is strongest among the workers with the lowest education and skill levels. Indeed, lower-skilled workers appear to have been rationed out of salaried employment to a greater proportion than other groups (World Bank 2005). This is consistent with the relatively high participation of lower education workers in the informal sector. It is also consistent with what workers reported in the 2006 ECH about why they work in the informal sector (see below).
Labor market segmentation is exacerbated by Colombia’s minimum wage...

27. Colombia has an active minimum wage policy in which the statutory minimum wage level is adjusted yearly to account for inflation as well as increases in worker productivity over time. The Colombian minimum wage is among the highest in the region, equivalent to 68 percent of the medium wage (compared to 33 percent in Argentina or 43 percent in Brazil or 48 percent in Mexico and 55 percent in Chile).

28. While a minimum wage can play an important role in terms of workers’ protection, especially amongst low-wage workers, the minimum wage in Colombia is among the most binding in Latin America, affecting wages both in the formal and informal sectors. Several recent studies suggest that the minimum wage has negatively affected formal employment levels, both through higher unemployment among formal workers and through a shift from formal salaried work to self-employment.

... and by its high non-wage costs.

29. Recent analysis of labor market policies in Latin America by the World Bank indicate that the non-wage costs of formal employment in Colombia – workers’ payroll taxes, firms’ contributions, and related payroll deductions – are the highest in Latin America, equivalent to at least 58 percent of total wage costs in 2008 (see Box 1). Recent empirical studies from Colombia and elsewhere in Latin America, as well as from the OECD, indicate that high non-wage costs reduce firms’ demand for formal workers, generating higher levels of informality (and/or unemployment) than would have existed in their absence. A recent study on Colombia by Kugler and Kugler (2008) finds, for example, that an increase in non-wage costs of 10 percent reduces formal employment by between 4 and 5 percent.

<table>
<thead>
<tr>
<th>Program</th>
<th>Percentage of Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pensions</td>
<td>16.0%</td>
</tr>
<tr>
<td>Health insurance</td>
<td>12.5%</td>
</tr>
<tr>
<td>Cesantías (severance fund)</td>
<td>8.3%</td>
</tr>
<tr>
<td>Vacation</td>
<td>4.2%</td>
</tr>
<tr>
<td>Primas de servicios (bonuses)</td>
<td>8.3%</td>
</tr>
<tr>
<td>Severance payment for unjust dismissals</td>
<td>varies according to the type and duration of labor contract. The lowest value is around 4.23% in the case of time-bound contracts.</td>
</tr>
<tr>
<td>“Parafiscales”</td>
<td></td>
</tr>
<tr>
<td>SENA (training)</td>
<td>2%</td>
</tr>
<tr>
<td>ICBF (family and child welfare)</td>
<td>3%</td>
</tr>
<tr>
<td>Cajas de Compensación Familiar</td>
<td>4%</td>
</tr>
</tbody>
</table>


Note: Some non-wage costs vary according to the wage level and profile of the worker.
Specific features of the design of social protection programs also contribute to segmentation

30. As mentioned above, specific features in the design of social programs can induce informality, by affecting workers’ perceptions of the net benefits brought about by formal employment. Indeed, workers can be expected to take into account the value of the benefits associated with formality (health insurance, access to pension, training, credit, etc.) when they weight the relative benefit of formality versus informality (or salaried employment versus self employment) when they select their sector and form of employment. Several specific features of the design of social protection programs seem to affect workers’ perceptions of the net benefits of employment, including:

- The “bundling” of multiple benefits into a single social security package. To the extent that some workers do not value particular components of the package, they may view those components as a “pure tax” on their earnings. As presented in Box 1, in Colombia, formal sector workers and firms have to make compulsory contributions to a series of services – severance pay, training, childcare, recreation, etc. Few workers are able to value all of these potential services, either because they only have access to some of them, because they do not need or demand some of them (workers without children will not use childcare services, for instance), or because they do not have knowledge about them. Thus, because they are forced to pay for a bundle of benefits, many individuals perceive negative net benefits to making payroll contributions, and this adversely affects incentives for formal employment.

- Specific design features, that do not take into account the labor mobility between formal and informal sectors, jeopardize access to benefits. For example, long vesting periods (25 years are needed to claim a pension) make it difficult for mobile workers to achieve the contribution history necessary to access a pension. These features raise the perceived costs and lower the perceived benefits of formality for many workers. This serves to reduce workers’ incentives to contribute and, more generally, reduces the expected benefits associated with workers’ participation in formal social security.

- Certain design features of the contributory health insurance program can also incentivize informality. For instance, when a worker contributes to the contributory health insurance program, his or her immediate family members are also covered by the program. Hence, many perceive that when an additional worker in the family starts contributing to the program, these contributions are a pure tax that does not bring any additional benefit to the household. This belief is partly based on a lack of understanding of the regime’s benefits. Indeed, in reality, the contributor has greater entitlements than his or her family members. For instance, the contributor is entitled to maternity or disability benefits, while his or her dependents don’t. This design feature is not well known, thus reducing the perceived benefits of different family members contributing simultaneously.

- Co-existing parallel programs could also influence incentives to enter formality. For instance, the existence of a subsidized health insurance regime, which covers poor workers and their extended families (Regimen Subsidiado), could reduce incentives to formalize.

- Badly designed benefit formulas can also create complex cross-subsidies within programs, which result in wide variations in the ratio of contributions paid to benefit received. Implicit taxes or subsidies affect individuals’ behavior because they create incentives to strategically manipulate wage or avoid the payment of the contributions. Both the contributory health regime and the pension system are based on a scheme of cross-subsidies: all workers receive the same health services irrespective of their contribution; and the replacement rate (value of pension relative to last wage) is higher for lower-wage workers than for those at the top end of the distribution. Such cross-subsidies can affect behavior and promote informality for some (and formality for others).
Lack of adequate information contributes to informality...

31. There is evidence that low-income workers, in particular poor ones, have a low level of knowledge of formal social protection programs, mostly because of their lack of experience with formal sector work. This lack of knowledge likely limits the ability of workers to make informed decisions related to sectors of employment and/or to affiliation to specific programs.

... as does lack of ability to pay for benefits

32. While one hundred percent of formal workers contribute to a pension system (by definition of informality in this study), the share of informal employees or self-employed, who contribute to the pension system is very low – about 7.6 percent and 1.7 percent respectively. This is mostly driven by costs, since nearly 70 percent of the uncovered report that their inability to afford pension contributions as the core reason for non-coverage. This proportion is even higher amongst poorer workers, with 90 percent of informal self-employed workers in the lowest quintile claiming inability to pay as the key reason for lack of coverage (versus 56 percent for those in the highest quintile).

33. The situation in health is somewhat different, since workers can benefit from their relative’s affiliation, and since the subsidized health regime covers a large share of the poor population. However, capacity to pay seems to play an equal role in under-coverage. Indeed, 58 percent of all those that are not covered by either regime report their inability to pay as the main reason (73 percent among informal self-employed workers).

A Profile of Firm Informality

The extent of firm informality depends specifically on how you measure it.

34. As for worker’s informality, there are different ways to measure firm informality and the incidence of informality varies considerably with the definition of informality and the data source employed. For instance, the 2003 microenterprise surveys and the 2001 “123” survey, both collected by DANE, show that between 41 and 46 percent of Colombian microfirms lack commercial registration (Figure 5). However, when defined on the basis of the non payment of taxes, the prevalence of informality increases to 54 and 62 percent, and it increases further to levels between 65 and 74 percent if informality is defined in terms of non-payment of social security contributions.

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4 The “123” survey has more detailed firm information but its sample is not restricted to cover only microfirms: it covers firms with at least one of the following characteristics: (a) less than 10 workers; (b) no formal accounting; and c) not incorporated.
35. In the context of firm informality, the lack of commercial registration is a preferred measure in this report, as it tends to capture others potential measures. Indeed, statistical evidence shows that commercial registration acts as a gateway to formality. For example, 85 percent of the firms that are not commercially registered are also informal in the sense of not paying taxes or social security contributions. However, the fact that a firm crosses the gateway does not necessarily imply that it will achieve formality in all other dimensions. More than one-third of the firms that do not pay taxes are registered, and so are 46 percent of firms that do not pay social security contributions.

36. In spite of difficulties to compare estimates of tax evasion with similar estimates for other countries in the region, the enterprise surveys recently carried out by the World Bank provide some indications. Colombian enterprises report that about 17 percent of the sales of typical firms in their lines of business are under-reported for tax purposes; and that firms fail to pay social security contributions for 15 percent of their workers. These data place Colombia near the average of the group of middle and large Latin American countries, with higher evasion rates than in Chile and Peru, but lower rates than in Argentina and Mexico.

37. Although tax evasion is not particularly higher in Colombia than in the rest of Latin America, Colombian firms are more likely to describe the practices of competitors in the informal sector as a major or very severe obstacle to their operations. This statement is made by 45 percent of Colombian firms. Moreover, 53 percent of firms state that informal competition is one of the three most serious obstacles to their operations, compared to 46 percent in Peru, 37 percent in Mexico, and about 30 percent in Argentina and Chile.

38. Regardless of the definition used, formality rates are lower among smaller firms. For instance, the incidence of tax evasion tends to decrease with firm size, and the fraction of sales that goes unreported for
tax purposes is estimated to be only 6 percent for firms with more than 100 employees, compared to at least 10 percent among firms of the same size in other countries of the region. Similarly, Figure 6 shows that informality is highest among micro-firms, lower among small and medium firms (with more than 10 but fewer than 100 employees) and even lower among large firms (with more than 100 workers). Less than 10 percent of large firms have no commercial registration, lack registration with the tax authority, or report not paying social security contributions. The numbers are also low for small and medium firms, with less than 10 percent without tax or commercial registration and about a quarter not contributing to social security; but much higher for microfirms, with over a third without commercial or tax registration, and three in four not paying social security contributions.

![Figure 6: Informality Rates by Firm Size, Cali and Yumbo Provinces (2005)](image)


As with workers, a firm’s status appears to result from explicit or implicit evaluations of the costs and benefits of formality and informality.

39. Figure 7 shows how the motivations of micro-firm owners for starting their businesses play a role in their decision to be informal. Informality rates are lower for entrepreneurs who set up a microenterprise seeking more independence, stability, higher income, or the continuation of a family tradition. In contrast, firms of those who were unemployed prior to starting up are much more likely to be informal; and the same applies to owners who were motivated by the desire to supplement other sources of income. In other words, those who start their businesses as a last resort or to complement other activities are less likely to formalize, probably because they have fewer expectations of expanding and thus of benefiting from formalization.
Formality increases with firm age and size, showing that informality among firms is often a first step towards a more formal status, rather than a permanent status.

40. Cardenas and Rozo (2007) find that formality rates increase quite rapidly as firms grow older and absorb more employees. The probability of not being commercially registered is 21 percentage points higher for owner-only firms than for the average firm with 1.9 workers. Moreover, the probability of being informal decreases by 8 percentage points with each additional employee. Similarly, at least among young businesses, the likelihood of being unregistered falls rapidly with each additional year in business – by 19 percentage points for one-year-old firms and by 12 percentage points for two-year-old firms.

41. These findings are consistent with the hypothesis that when deciding about the formality status of their business, microfirm owners are, to a large extent, driven by exit choices and not just by exclusion factors. Entrepreneurs who started their businesses coming from salaried work – as opposed to unemployment or inactivity – are more likely to formalize their firms, and so are those who have accumulated higher levels of physical and human capital. Formality is also more prevalent among those firms that have survived the high mortality rates that characterize the initial years of small businesses (in both industrialized and developing countries); and among those whose performance has warranted the hiring of additional paid workers.

The quantity (and quality) of regulation affect firm informality

42. There is also considerable evidence that the varying incidence of informality across countries with similar per capita incomes is significantly linked to the nature of business regulations and the quality of governance. The cross-country evidence suggests that not only the quantity but also the quality of regulations matter for explaining informality levels, which are significantly affected by measures of governance and institutional quality. Loayza’s (2007) model for Colombia predicts quite well the level of the four measures of informality used in the analysis. This shows that the proxies for the quality of governance and the size of the regulatory burdens carried by firms are the most important factors explaining the differences in predicted informality rates between Colombia and, respectively, Chile and the United States.
And informality in turn affects firm productivity

43. Access to credit is widely recognized as a key element for firms to develop and grow. The 123 survey shows that informal firms face more obstacles to gaining access to credit. Another cost of informality for firms is not having access to services provided by the public sector. The results show that informal businesses receive less training support than formal ones. They also demand less training and support. This could reflect the fact that they anticipate not receiving this service from the State, or the lack of sufficient information about the benefits associated with training and managerial support.

The Close Links between Worker and Firm Informality

Worker and firm informality are often two sides of the same coin... as almost half informal firms are firms with only one person

44. Ninety five percent of all Colombian firms are microenterprises, and more than half of these microfirms only have one employee (almost 45 percent have between 2 and 5). According to the microenterprise surveys and the 2001 “123” survey, respectively, 60 and 57 percent of owner-only firms lack a commercial registration, 56 and 76 percent do not pay taxes, 92 and 89 percent do not pay social security contributions, and 86 percent (“123” survey) report no expenses for registration or government licenses.

Even when small firms chose formality, their workers might still be informal

45. Some formal firms – defined as registered with the commercial registry – contract informal workers. Figure 8 shows that a significant proportion of informal workers work in formal firms. Indeed, this is consistent with the earlier finding that, although registration is the gateway to formality, a firm registering does not necessarily imply that the firm will achieve formality in all other dimensions or for all its workers.

Figure 8: Intersection of Micro-Firm and Worker Informality (percentage of firms/workers)

Directions for public policy to enhance worker welfare and firm productivity

46. This chapter focuses on how public policies affecting (in)formality can increase worker welfare and improve firm-level productivity in the face of high and persistent informality in Colombia. Raising worker welfare and firm productivity calls for efforts on a series of fronts, identified throughout this report. In this section, for the sake of clarity, we have organized the proposed directions for public policies in three broad (and overlapping) categories:

- policies to enhance workers’ welfare through stronger human capital, access to labor markets and greater social protection coverage;
- efforts to promote firm formalization; and
- broader efforts to strengthen Government institutions.

47. While there are a number of long-term challenges to increase worker welfare and firm productivity, this section focuses particularly on short and medium term actions that could put the country on the path to these deeper reforms. The proposed policy actions belong to a series of areas – labor markets, firm regulation, taxation, service delivery, etc. – and do not pretend to present a complete agenda for reforms in any of these areas. Rather, the section focuses on policies actions that can have an impact on worker welfare and firm productivity.

Enhancing workers’ welfare requires actions on multiple fronts

48. While there are a number of reasons why people work in the informal rather than the formal sector, the evidence shows that several elements can be harnessed to address the country’s high and persistent inequality, grouped here into three categories:

- Strengthening young workers’ human capital and access to job opportunities. The overall low level of education and skills of workers, as well as broader barriers to access the formal labor market, which call for broad reforms to the education and training sectors to foster stronger skills, as well as the establishment of integral labor intermediation services.

- Designing social protection programs that broaden coverage while removing unnecessary incentives for informality. Some aspects of the design of social protection programs can increase their cost and/or reduce their benefits for formal sector workers, thereby reducing worker incentives for formal employment. These can include the bundling of multiple benefits, the requirement that secondary workers pay for some of the benefits they already receive as dependants, the long vesting periods for pensions and other rigid features that do not account for labor mobility across jobs and sectors.

- De-linking access to social protection from labor market status. The segmentation of labor markets results partly from high minimum wage and non-wage costs of formal labor, which reduces formal sector employment. De-linking coverage from labor market status can help remove this segmentation.

49. Several of these factors interact and mutually reinforce one another. For example, the use of non-contributory programs as a vehicle for expanding coverage has required additional public resources and has affected the incentives for poor workers to affiliate to the contributory system. Increases in payroll taxes to finance this non-contributory regime can in turn create further disincentives for formal employment. Similarly, low efficiency in the delivery of social protection services can drive people and firms further into informality, resulting in higher costs. The result has been a kind of a vicious circle in
the labor market, in which high labor costs foster high informality, which in turn has increased pressure for higher taxes, leading in turn to greater incentives for informality.

**Strengthening Young Workers’ Human Capital and Facilitating their Access to Formal Sector Job Opportunities**

*Improving access at secondary and tertiary level and education quality is critical*

50. Given the strong association between education and formal employment, one of the most important actions Governments can take is to improve access to quality education at the secondary and tertiary levels. This is an important medium-to-long term policy goal, not only in the context of informality, but for the success of the Government’s broader development agenda. At the same time, for young people who have already exited the formal education system, the Government could provide better opportunities to acquire or strengthen technical and marketable skills, via job training, employment services, and access to learning opportunities.

**Evidence suggests that programs need to be linked to existing labor market demand**

51. International evidence on skills training is mixed, but some approaches have shown promise in Latin America. Evidence from Argentina, Chile, Peru, and Uruguay, shows that Jóvenes-type programs can be beneficial in terms of both employment and earnings. Jóvenes programs tend to be decentralized and demand-driven training programs that offer poor young people a comprehensive package of workplace internships, preceded by training in both professional and life skills. The evidence indicates that the technical training component is important, but it also highlights that to be effective, the training needs to be closely linked to the labor market’s demand for skills. Moreover, it appears that technical training is more effective when the training market functions competitively and in a decentralized way.

**Programs combining training, employment services, social services, and intermediation, are more effective**

52. Colombia’s Jóvenes en Acción program was found to successfully increase participants’ earnings and employment. Women offered training were found to earn about 18 percent more than those who were not offered training, while men offered training were found to earn about 8 percent more than men who were not offered training. The benefits of training were found to be greater when individuals spent more time doing on-the-job training. Comprehensive programs that provide training as part of a broader package that includes basic education, employment services (job placement, internships, advice in developing self-employment initiatives, etc.), and social services are often more successful than those that provide training alone.

**Designing social protection programs that broaden coverage while removing unnecessary incentives for informality**

53. The main instruments available to the Government in the short term are related to strengthening the design and increasing coverage of social protection in the face of continued high levels of informality. Policies to strengthen social protection can take two complementary routes, as developed by Perry et al (2007):

- One route involves strengthening the design of existing social protection programs to raise the benefits and lower the costs workers perceive with respect to affiliating with formal social security – in other words, reforming existing programs to reduce incentives for informality and increase incentives for formal employment.
• A second route would involve a more holistic approach, focused on making social protection broadly available based on the concept of “citizen” rather than the concept of “worker”, narrowly defined as a person with a formal labor contract.

54. Consistent with that agenda, Perry et al (2007) outline short to medium-term actions focused on improving the benefit-cost ratios of programs, to induce more workers to prefer the formal sector. These include: (1) unbundling of complex benefit packages; (2) improving the efficiency of insurance systems via design improvement and institutional strengthening; and (3) increasing the coherence, portability and incentive compatibility of programs through the harmonization of programs rules, eligibility requirements, and benefits levels.

_Raising the Benefits of Social Protection via Unbundling, and Improving Quality of Service_

55. As discussed earlier, formal sector workers and firms in Colombia have to make mandatory contributions to a social security package that includes health insurance, pensions, work-related risks, unemployment insurance, training (SENA), childcare (ICBF), and a range of benefits and services available through the _Cajas de Compensación Familiar_ (CCF). Some components of the package go directly to workers and/or their families, while others go toward broader groups of beneficiaries (e.g. some ICBF services targeted to the poor).

56. To the extent that workers consider the net value of benefits to be negative – if the perceived benefits of the total package are seen to be lower than the costs – then they may prefer to opt out of formal jobs. For this reason, Colombian policymakers should consider unbundling the non-essential elements of the current package. Unbundling would involve shedding – or making voluntary – those elements of the current social security packages where there is no risk pooling or risk management rationale, where payroll contributions finance private as opposed to public goods. The objectives of unbundling the mandatory package would be to: (a) increase the benefits relative to the costs of the social security package, and (b) focus social security on its core functions, i.e. the provision of public goods, where risk pooling or management are important and/or the good or service provides important and positive externalities.

57. What does this imply for the provision and financing of unbundled benefits? In some cases, where payroll taxes currently finance private goods – e.g., family recreation activities – it would be most appropriate to offer the service on the basis of voluntary contributions. Workers could contribute if they value the service, and worker contributions would then reflect their perceived value and demand for those services. In other cases, the provision of public goods is clearly involved – e.g., the implementation of ICBF programs supporting early childhood development. Nonetheless, the rationale for financing these public goods via payroll contributions is not clear. Indeed, such programs would be more appropriately financed through general taxation. Thus, unbundling of the multi-faceted, mandatory social security benefits package could be used to shift workers’ perceptions of the relative benefits and costs of being formal. This would provide an opportunity to reduce non-wage costs which, as discussed earlier in the report, are an important segmenting factor in the Colombian labor market.

58. As a complement to unbundling of the current multi-dimensional social security package, it will be important to ensure that the quality of any mandatory package is sufficiently high. In the case of unbundled benefits that are available on the basis of voluntary contributions, providers will have clear incentives to maintain or improve quality, as demand for such benefits will be a direct reflection of workers’ perceptions of service quality.
59. Between the contributory and the subsidized regimes, around 80 percent of workers are covered by some form of health insurance in Colombia (Figure 9). Coverage is relatively high – over 72 percent – in all informal sector job categories, including for unpaid workers. Of those covered, roughly half are covered by the contributory regime, while the others are covered by the subsidized regime or special plans. However, over 55 percent of those covered by the contributory regime actually contribute, while others benefit as dependants of contributing family members. Overall, less than one-third of covered individuals actually contribute.

**Figure 9: Health Insurance Coverage among Active Workers, 2006 (percent of workers)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (Working)</td>
<td>80.5</td>
</tr>
<tr>
<td>Formal Self-employed</td>
<td>74.9</td>
</tr>
<tr>
<td>Informal Self-employed</td>
<td>77.6</td>
</tr>
<tr>
<td>Total Formal Employee</td>
<td>100</td>
</tr>
<tr>
<td>Informal Employee</td>
<td>100</td>
</tr>
<tr>
<td>Formal Employer</td>
<td>100</td>
</tr>
<tr>
<td>Informal Employer</td>
<td>73.4</td>
</tr>
<tr>
<td>Formal Employer</td>
<td>77.6</td>
</tr>
<tr>
<td>Informal Employer</td>
<td>23.4</td>
</tr>
<tr>
<td>Unpaid</td>
<td>22.6</td>
</tr>
</tbody>
</table>

Source: Bernal (2007).

60. In the context of health, strengthening and expanding social protection via the two complementary routes could involve: (a) building on and consolidating recent Government efforts to extend health insurance to a broad swath of the population through the subsidized (non-contributory) health insurance regime targeted at the poor and vulnerable; while (b) continuing to strengthen the efficiency, coherence, and incentive compatibility of the health insurance system. This latter route could involve greater attention to integration of the contributory and subsidized regimes, to reduce any incentives for informal employment. While empirical evidence on the informality effects of the subsidized health insurance regime is limited, it will be important to ensure that these effects do not become more pronounced as the country continues to develop.

61. Given the problems associated with financing both contributory and non-contributory programs from payroll taxes, and the complications associated with having multiple health insurance programs, there is a case for moving toward a single package of “essential” services for all Colombians. In the short term, working to achieve universal health insurance coverage will require a series of cost-saving measures. The Government also needs to address the ruling from the Supreme Court that requires the elimination of coverage and financing disparities between the different health insurance regimes, and to increase portability across insurance companies.

62. In the short to medium term, the Government could also rigorously assess the impacts of recent changes in Colombia’s health financing structure, including increases in health insurance contribution rates under the contributory regime, and the creation of a partially subsidized health insurance scheme. Among other things, it would be important to assess: (a) the likely effects of these measures on incentives for formal versus informal employment; and (b) the availability and adequacy of provisions for workers to retain coverage as they change sector or job type.
63. In the longer term, to ensure both effective social protection in health and fiscal sustainability, it would be important to move toward defining a single, unified benefit package, based on sound insurance principles; and to assess the expected costs of universal coverage under the package.

64. Finally, given Colombia’s long-term commitment to achieving universal social protection in health that minimizes incentives for informality, it would be important to strengthen the statutory legal framework regulating the health sector, and ensure that the institutional arrangements are transparent to all actors. To date, the lack of such a framework has resulted in confusion about what should be covered by health insurance; it has also led to judicial decisions that undermine the financial sustainability of the sector and introduce perverse incentives to individuals seeking care.

Short term actions to transform Colombia’s System of Old Age Income Security

65. In the context of old-age income security, strengthening and expanding social protection via the two complementary routes can build on existing (or envisioned) programs to prevent poverty among the elderly poor – for example, through consolidation and extension of the country’s non-contributory cash transfer program to indigent elderly, or via the proposed program of Periodic Economic Benefits (BEPs)5. As in the case of health, it will be important to focus on greater integration and incentive compatibility of old-age income security programs, although this will present a greater challenge, as the contributory and non-contributory programs would need to be conceived and then strengthened as part of a larger, coherent, system of old-age income security for all citizens, something that has not been a focus in the pension sector to date.

66. Colombia’s system of old-age security is currently made up of several connected and unrelated programs, including contributory and partially subsidized pension programs, and non-contributory transfer programs to poor elderly persons. The mainstay of Colombia’s contributory pension system, established under Law 100 in 1993, is a dual system that includes both a public pay-as-you-go scheme and a private scheme based on individual savings accounts. The public and private schemes are related, and workers can switch between the two, subject to some restrictions. In an effort to raise pension participation, particularly among low-income workers, Law 100 also created a subsidized Solidarity Pension Fund (Fondo de Solidaridad Pensional, FSP). The FPS subsidizes contributions of low-income workers to the public defined benefit scheme. The subsidy has a redistributive goal, as it is targeted to poor workers, but it also aims at providing incentives to participate in the contributory pension system, as only workers who contribute to the system get the subsidy. In addition, the Government of Colombia implements two non-contributory transfer programs for seniors, a cash transfer program and a feeding program.6

5 The Government is currently exploring options for the design of the BEPs program, which would aim at strengthening old-age income security among currently uncovered Colombians via a benefit whose level is de-linked from the minimum wage and from formal labor contracts.

6 These programs are Programa de Protección Social al Adulto Mayor (PPSAM) and the Programa Nacional de Alimentación para el Adulto Mayor “Juan Luis Londoño de la Cuesta”, run by the Ministry of Social Protection and ICBF, respectively.
67. In contrast to total health insurance coverage, pension coverage is low in Colombia. Only 28.8 percent of the working age population reports contributing to formal pension schemes. Coverage under the cash and food transfer programs for the elderly is also relatively low. Nonetheless, the government of Colombia has expressed a commitment to expanding coverage and has recently passed legislation loosening eligibility requirements for the Solidarity Pension Fund and raising the budget allocations for the transfer programs, so as to reach out to a wider swath of the elderly population. Perhaps more importantly, the Government has started to design a program that would provide minimum periodic income support to uncovered seniors.

68. In this context, how can the Government expand old-age risk protection to the entire population in the long run, with the aim of preventing poverty among its elderly population, and do so in a way that minimizes adverse labor market or savings incentives? A set of core principles can be identified:

- Given the risk of being poor with insufficient savings in old age, there is a case for providing minimum essential coverage to the elderly in the form of a poverty-prevention pension targeted to the poor.

- At the same time, it is important to promote individual saving as a core element of a broader system of old age security. Indeed, given the high probability of income loss in old age, saving should be the mainstay for earnings replacement during old age. Savings pillars should closely link benefits to contributions and serve all workers, regardless of their labor contract (perhaps through a combination of mandatory and voluntary savings instruments).

- Experience suggests that the poverty-prevention component of the system is best financed and managed separately from the savings component. Among other things, the institutional imperatives associated with managing a minimum poverty-reduction payment are distinct from those associated with the management and supervision of investments under individual capitalization schemes (Gill, Packard, and Yermo 2004).

- Moreover, progressive integration of the system’s various components is essential to avoid creating perverse incentives in the labor market.

69. While moving toward universal coverage of old-age income security mechanisms through the development of a well-integrated and incentive compatible system of old-age security likely represents a long-term policy agenda, there are a number of short to medium-term actions that the Government could take to help move toward this long-term vision – measures aimed at increasing the efficiency, incentive compatibility, and flexibility of the system, along with measures to increase workers’ knowledge and understanding of the system. For example, the Government could undertake to:

- Analyze more deeply the factors that have led to low coverage rates, in the contributory system and subsidized Pension Solidarity Fund, to build on the existing evidence on the importance of affordability, confidence in the system, and information about the system identified in this study and mentioned earlier;

- Analyze the interactions among the various programs to improve coherence and incentive compatibility among existing programs and with programs under consideration.
In the context of developing a more coherent system of old-age security for Colombia, it would be important to:

- Evaluate the potential role of a unified pension administrator to foster greater coherence and incentive compatibility of the entire “system” of old-age income security, including contributory and subsidized programs, as well as non-contributory programs.

- Given concerns about poor workers’ ability to save for retirement on a regular basis – both due to problems of low income levels and high variability of incomes – it would also be important for the Government to consider (a) mechanisms that provide more flexible savings instruments for low-income and/or seasonal workers, in terms of the timing and minimum amounts of contributions and (b) whether self-employed workers ought be allowed to save or contribute using a base income lower than the minimum wage.

- Examine the potential for increasing flexibility of contribution rates across the lifecycle, as a means to induce greater participation in the contributory system. This could include provisions for younger workers who may have more immediate priorities for a portion of their savings (e.g., children’s education, purchasing a home), and flexibility in the risk-return profiles of savings portfolios over the lifecycle.

- Implement information and education campaigns to address existing information problems among informal workers, especially low-income workers with low levels of education. Such campaigns should include basic information on Colombia’s old-age security programs and the benefits of saving for retirement, and on the procedures necessary to access the available programs and entitlements.

Reducing regulatory barriers to formality by de-linking access to Social Protection from labor market status and providing access to all citizens

The financing of some social protection programs through payroll taxes can generate strong incentives for informality, which has led to proposals to de-link both access to and financing of social protection program from the labor contract and move to programs financed from general taxes. The goal would be to offer basic benefit packages (e.g., health, pensions, or unemployment) to all, regardless of their income level or where they work. The costs would be financed from general revenues and/or earmarked taxes. Individuals wanting extra protection or insurance would be free to enroll in voluntary, complementary plans that could be managed by the public or private sector.

In addition to reducing labor market distortions because the non-wage labor costs would be reduced, this would eliminate distortions arising from the existence of parallel systems for different groups. General taxation is potentially the most efficient and equitable financing mechanism for risk pooling, depending on the progressivity of tax collection instruments and subsequent patterns of public spending. Financing essential coverage through general tax revenues also has the benefit of ensuring that risks are effectively spread across the widest possible risk pool.

Some distortions might still emerge through the income effect of the subsidies – with workers only needing lower wages as their expenditures are reduced – or through moral hazard –with workers

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7 This draws on a forthcoming World Bank Regional Study on Social Protection (World Bank, 2010).
working or saving less because of the existence of these universal benefits. However, negative effects could be contained if the benefits offered remain limited.

74. Delinking benefits that are currently part of the formal social security package from the labor contract is likely to be a long-term endeavor, as it would involve a significant change in the conceptual and operational mechanisms for providing social protection. This would involve many practical challenges, and there are also concerns about the opportunity cost of universal, non-targeted, programs. In addition, general tax revenues (such as income taxes or consumption taxes) are low in many Latin American countries, and the scope for tax reform is limited. So governments might be reluctant to cut workers’ contributions for social insurance.

75. An alternative proposal, recommended by the forthcoming World Bank Regional Study on Social Protection, is to de-link access to social insurance from formal sector labor contracts but to continue financing part of the system from some beneficiaries’ contributions. All individuals would have the same rights to social security coverage, without distinction related to their labor status, but would contribute to the financing of the benefits they receive in proportion to their income. High-income workers would pay in full the premiums corresponding to the risks for which they are covered (and would not subsidize the premiums of other beneficiaries), while low-income individuals would pay only a portion of these amounts (the rest would be financed from general revenues). Fully subsidized programs, financed from general revenues, would be set up to meet the needs of the long-term poor who are unable to contribute anything. This approach would eliminate the implicit redistributive component of existing systems, which increases the tax wedge and can reduce employment levels, promote informality, and/or induce other kinds of adverse behavior. Instead, the redistributive component of the reformed system would be made explicit and would be financed out of general revenues, to avoid creating any negative employment effects.

76. In the case of providing minimum essential health coverage, Packard (2006) and Perry et al. (2007) argue that, given externalities, the social costs of individuals failing to cover themselves and their dependents are high enough that “there is a clear risk-management rationale to take the ‘choice to cover’ out of the hands of employers and workers” by shifting financing away from payroll contributions and toward general revenues.

77. It is important to underscore that the idea of general revenue financing of health should apply solely to minimum essential coverage; both the economics of insurance and a country’s real-life fiscal constraints dictate that additional health coverage, if desired, should be available on a voluntary, contributory basis. In this context, there is a critical role for public policy in fostering more efficient health sectors, including the strengthening of both insurance and provision functions.

78. For old-age pension, as a form of social insurance, risk pooling would be central to the poverty-prevention element; and, because of the social costs associated with people falling into poverty in old age, there is a clear risk-management rationale for delinking access to this poverty-prevention pension from the labor contract, and financing it through general revenues. At the same time, it is important to promote individual saving as a core element of a broader system of old age security. Indeed, given the high probability of income loss in old age, saving should be the mainstay for earnings replacement during old age.

79. As mentioned earlier, lessons from international experience make it clear that savings pillars should closely link benefits to contributions, and do so in a similar way for most workers, regardless of the status of their labor contract (perhaps through a combination of mandatory and voluntary savings instruments). Experience also suggests that the poverty-prevention component is best financed and managed separately from the savings component, as they have very different institutional imperatives.
Policies to further improve firm productivity

*Increasing productivity requires both measures to promote firm development and measures to incentivize formalization.*

80. As a complement to the policies and measures to increase workers’ welfare, there are a number of measures that the Government of Colombia could take to promote greater firm formality in the short- and long-terms and through that promote greater productivity. In the long-term, growth-oriented policies, investments in strengthening the human capital of entrepreneurs and workers, as well as investment climate reforms aimed at increasing productivity and wages in the formal sector are potentially the most effective ways of promoting large reductions in informality.

81. In the short and medium run, efforts to reduce the costs of formality and increase the benefits of formality, and improve information about formality call all help to facilitate firm formality. It is important to bear in mind, however, that the extent of the impact of these measures on firms will likely depend on the “depth” of the particular firms’ informality. Specifically, firms that are at the margin of formality and informality may be more likely to react favorably to changes in incentives to be formal, while firms that are farther from the margin may require more profound changes on in the broader economic environment, in enforcement mechanisms, and in the institutional capacity of the Government more broadly.

*A first set of policies can strengthen firms’ productive capacity through specific interventions*

82. The report identifies low productivity and low productive capacity as key factors of informality. Hence, establishing programs specifically targeted at micro and small enterprises can potentially address these issues and promote greater formality. These could include programs to link small and large firms and specific micro and small firm programs:

- The development and implementation of pilot programs aimed at developing linkages between MSMEs and large firms and at providing greater training opportunities could be an element of the broader effort to increase capacity. Linkages could involve large-firm support for training and capacity-building among the smaller firms, as well as development of commercial linkages. Through raising the benefits associated with small-firm formalization, the effective implementation of such programs, in coordination with sub-national governments or with local Chambers of Commerce, could be an effective tool in reducing firm informality in Colombia. These twinning programs would also need careful supervision from Chambers of Commerce in order to protect small entrepreneurs and their innovations and ideas.

- Greater knowledge by small informal firms and improved coordination of public programs at the national and local levels would help ensure programs are better known and more accessible. Many informal firms lack information about the benefits of formalization, which can slow down the process of setting up new companies, act as a barrier to entrepreneurship, and increase the risk of business failure. In addition, the myriad of programs available are often poorly coordinated, creating inefficiencies and increasing information and transaction costs for firms. Finally, there is a large agenda of evaluation of SME initiatives, which would help shed light on the most effective programs that could then be scaled up. Policies could include: the creation of structures to coordinate SME initiatives and minimize duplication; the development of an integrated program to support prospective entrepreneurs which combines financial incentives, technical assistance, and training. In addition, the Government of Colombia has begun to rigorously evaluate its SME policies, focusing initially on FOMIPYME, and should continue to extract lessons from experience.
Measures to incentivize formalization include simplification of registration, improvements in taxation, and measures to increase the benefits of formality.

83. In the short-to-medium term, there is also a potentially important role for policies to incentivize formalization. The report shows, for example that administrative simplification programs aimed at reducing the transaction costs associated with operating a formal business can be an effective tool in inducing at least some small firms to become formal – often through the use of internet-based technologies and/or one-stop-shops.

- In this regard, the evidence suggests that the CAEs (Centros de Atención Empresarial) had a positive impact. And there appears to be scope for deepening the services and expanding the successful initiative to all cities in the country.

- Adopting simplified tax regimes for small and micro-enterprises can also help to address an important obstacle while targeting precisely that segment of firms in which the incidence of informality is greatest. Experience in other parts of Latin America with the introduction of simplified tax regimes for small firms suggests that they can be successful in promoting firm formalization, particularly in the early years of a firms’ existence. The experience also suggests, however, that such tax regimes need to be designed carefully and, in general, ought to be available to firms on a time-limited basis, so as not to create disincentives to firm growth. The simplification must include the contributions to social security.

- Another impediment to firm’s registration is related to the perception of high financial and time costs associated with closing a business in Colombia. Despite the existence of some regulations related to bankruptcy (e.g., Law 550 of 1999 and Law 1116 of 2006), further analysis is needed to determine how best to further reduce firms’ costs in this regard. In this regard, in 2005 the Colombian Congress approved new legislation (Ley de quiebras) that addresses some of the main obstacles to expediting firm liquidations. To be effective, enabling legislation, which has yet to be enacted, need to be approved.

- Providing incentives for departments and municipalities to create special regimes for small firms can help further boost formality, in line with the Law 590 of 2000 and Law 905 of 2004. These laws establish a series of priorities for formal micro, small and medium enterprises (MSMEs). This includes authorization for the National Guarantee Fund (Fondo Nacional de Garantías) to provide credit guarantees to these firms (up to 70 percent), creation of special credit lines for MSMEs, and authorization for sub-national entities to establish special tax regimes for this class of firms. In this area, greater policy and program coordination across central and local authorities could increase their effectiveness.

Policies to further strengthen Government’s institutional and enforcement capacity

84. Efforts to raise worker welfare and firm productivity through efforts to ensure universal social protection coverage and promote firm formalization and development will benefit significantly from broader efforts to strengthen the Government’s institutional and enforcement capacity, as well as to build confidence among workers and firms in the intentions and capabilities of the State. Indeed, the space for firms to opt into informality is likely to be higher when there is a collective view that taxes are being poorly used and, more generally, when the State’s actions are perceived to be ineffective or unfair. This can give rise to a social norm of regulatory non-compliance – a so-called “culture of informality” – that
can further reduce the State’s effectiveness and its ability to enforce the law. Analysis of cross-country
tells a consistent story in this regard. Weaker government capacity, weaker rule of law, and lower
perceptions of fairness on the part of State institutions are all associated with higher levels of informality.

*Increasing the capacity, performance and credibility of the State*

85. A key barrier to greater formalization resides in the perception of low quality and performance of
services, as well as more generally, a lack of trust in the State’s ability to deliver promised benefits.
Although Colombia has made important progress in these areas, additional efforts are needed. To attack
one of the roots of informality, the Government would need to:

- Increase the quality of its services, through major improvements in the relevance, quality and
efficiency of its social services (actual benefits received by beneficiaries). This will include
improvements in the design of services or benefits for greater relevance and impact (size, frequency,
modalities, etc), in the targeting mechanisms used to identify beneficiaries, in the systems for the
delivery of services to increase their efficiency and reduce administrative costs, in the coordination of
complementary services and the rationalization of duplications;

- Promote greater transparency in the use of resources, including through the systematic and rigorous
evaluation of the effectiveness of government programs affecting firms and workers, their publication,
and a series of follow-up actions based on their recommendations;

- Strengthen the rule of law through efforts to reduce corruption levels and strengthen the justice
system.

*Improving information on the benefits of formality for workers and firms alike is also key to a cultural
change with respect to informality*

86. Efforts to reduce informality would also benefit from improved information and education
campaigns and programs in several areas.

- On the worker side, this would include information campaigns aimed at disseminating information on
the role and availability of key social protection programs, the benefits they bring as well as the
procedures to access benefits and services, and more generally the relative benefits available to
workers in formal employment.

- On the firm side, this would include information campaigns to present information regarding the
process of formalization and the benefits of formality; including details on the benefits of Laws 590
and 904, Government programs available to those that formalize (e.g., credit, training, etc) as well as
the broader benefits associated with formalization, in particular in terms of greater access to
productive inputs.

- More generally, there is also an important role for educational programs that explain the role and
importance of tax revenues for the country’s development. This should be coupled by clearer
communication of how people’s taxes contribute to broader economic and social development. Such
initiatives would help to build trust in Governmental actions in the long term.
Alongside efforts to increase workers’ and firms’ faith in government in the long-term, there is a need to continue to strengthen the Government’s institutional and enforcement capacity in the short-to-medium term. Such efforts could include:

- Improving the identification of concentrations of informal activity, through firm-level censuses, in order to focus efforts geographically and sectorally.

- Further strengthening of inter-agency coordination via greater information sharing. The Social Protection Ministry, the Secretarías de Salud, the Chambers of Commerce, and the National Direction of Taxes and Tariffs (DIAN), among others, should systematically share and exploit administrative data systems. The inter-connectivity of the information systems that manage administrative tax registries, registries and payments of social security contributions (PILA, RUAF, DIAN) is a critical element of this effort;

- Increased auditing of firms, particularly those with government contracts and/or larger firms for whom informality is no longer part of the “natural lifecycle” of business development;

- Resolution of real or apparent inconsistencies in business regulations that either create confusion among firms which otherwise might register, or that provide loop-holes for firms looking to evade.

An agenda for further analysis and policy dialogue

This report has also highlighted the need to further analyze and explore a series of issues, with a view to propose options for public policy in the coming years. Among others:

- The first core item on this analytical agenda is the assessment of the functioning, efficiency, relevance and effectiveness of services that are provided by the entities funded through payroll taxes (including the severance funds, training institute, family and child welfare institute, and workers clubs). This will be a core element of the process of un-bundling of services, and of the process of improvement of the efficiency of service delivery.

- The second core item on the agenda relates to the analysis of the costs and benefits of different approaches to the universalization of health insurance, in light of the size of the coverage gap, the design and cost of the health benefit package, and the demographic characteristics with their expected changes. The discussion about the definition of an essential health benefit package for all citizens has been given a particularly urgent character by the Constitutional Court recent judgment.

- A third core item on the agenda relates to the assessment of the national system for job training, its further strengthening and greater integration between different systems that can help consolidate poor people and youth’s human capital in a coherent fashion, with a focus on skills that are demanded by firms and will contribute to increasing their productivity.

- Finally, it will be important for Colombia to develop a stronger and more comprehensive set of active labor market policies and programs to promote greater intermediation between workers and firms, ensure workers are equipped for the available jobs, and help promote a labor market that is more transparent and efficient.
1. Introduction – Public Policy Implications of Exit and Exclusion

1.1 Concerns about Colombia’s large and persistent informal sector – and its implications for the country’s economic productivity and for workers’ well-being – are now front-and-center in discussions among the nation’s key policymakers, as well as in the daily newspapers. This debate is not new, of course; questions about the nature, size, reasons for, and socio-economic consequences of the informal sector have existed in Colombia for many years, as they have throughout Latin America. However, the debate has taken on a new urgency because of the sense that: (a) a better understanding of worker informality – including reasons for some workers’ voluntary exit from the formal sector, and for other workers’ exclusion from the formal sector – will contribute to more effective and sustainable social policy; and (b) a better understanding of firm informality will aid in the formulation of economic policies that foster greater economic productivity and growth. Both more effective social policy and greater productivity are seen as key elements of a more effective and sustainable poverty reduction strategy for the country.

1.2 Given the implications of informality for the country’s development strategy, counterparts at Colombia’s National Planning Department (DNP) invited the World Bank to work in partnership with the Government to develop a better understanding of the size and nature of the informal sector; the factors contributing to informality due to exit and exclusion, on both the labor and firm sides; and the implications for public policy. The counterparts expressed particular interest in understanding the implications of high and persistent labor informality for the broad provision of social protection to Colombia’s population, and for the development of policies and programs to promote a more productive business climate. This invitation led to a rich, multi-phased partnership that has involved technical assistance, analytical support, and ongoing policy dialogue. This study is one product of this partnership.

(Why) Should Policymakers Care about Informality?

1.3 A recent World Bank flagship study of informality in Latin America and the Caribbean (Informality: Exit and Exclusion, Perry et al 2007) highlights several key reasons why policy-makers should care about informality. Among them:

- **The welfare of workers and their families.** Informal workers commonly lack access to a range of formal social protection services and benefits, including health insurance, pensions, and other formal risk management instruments. This leaves workers exposed to a variety of shocks that can adversely affect the well-being of them and their families.\(^8\)

- **Firm productivity and growth.** Informal firms may be unable to access credit, larger sales/product markets, and sources of innovation, causing them to operate at a suboptimal scale. In addition, competition from non-complying firms can lead to productivity losses at formal firms. At the aggregate level, a large concentration of workers in small firms rather than larger firms may also have adverse effects on productivity growth.

- **Fiscal sustainability and the functioning of the State.** Workers and firms operating in the informal sector do not pay taxes. Widespread informality thus undermines the State’s ability to provide sufficient public goods and services for those within (as well as outside) the formal sector. To the extent that lower revenues are associated with lower provision of public goods, the phenomenon of high informality and low revenues may be mutually reinforcing.

\(^8\) Several recent studies, including Ravallion (2004) and Perry et al (2006), also highlight that risk-averse workers who are uninsured against health, old age, and other risks may have lower productivity and fewer incentives to invest in human capital and other assets.
1.4 These issues have particular salience in Colombia, where – since the economic crisis of 1999 – the Government has been committed to the creation of a comprehensive system of social protection, through which all citizens would be protected against key risks such as impoverishing health shocks and poverty in old age. High and persistent informality, however, has undermined the Government’s ability to achieve this commitment through traditional social security programs, and has forced it to rely on alternative instruments to achieve its social protection goals. One example is Colombia’s subsidized health insurance regime, the Regimen Subsidiado, which is targeted to poor, informal workers. As discussed in this report, the Regimen Subsidiado has contributed in important ways to increasing health insurance coverage and health service access among the poor. At the same time, some observers have raised questions about whether such programs may create incentives for workers to stay informal. A better understanding of the reasons underlying worker informality can thus help Colombian policymakers to clarify this and related questions and ensure that their social protection policies and programs are effective in meeting their goals.

1.5 With respect to firm productivity, prior to the current economic crisis, Colombia had seen a rebound of its productive sector. Growth rates had exceeded 7 percent, private direct investment had soared, and future prospects looked promising. Yet there is a sense that high growth has not yet achieved its potential in reducing poverty, and that this may be related in part to low productivity among informal firms, particularly those concentrated in the micro- and small-firm sector. The report presents evidence that informal firms in Colombia do, in fact, have less access to credit, training, and capital goods and, on balance, are less productive than their formal sector counterparts. Moreover, formal sector firms do, in fact, report that their competitiveness is undercut by informal firms operating outside the system. In this context, a better understanding the causes and consequences of firm informality can facilitate the development of policies to induce firm formalization and improve their access to productivity-enhancing inputs. Further, enhancing productivity among the micro- and small-scale firms may serve to strengthen the links among productivity, growth and poverty reduction in Colombia.

1.6 In terms of fiscal sustainability, high informality affects Colombia’s ability to raise tax revenues and undermines government’s ability to provide the types of public goods and services that could make firms’ and workers’ participation in the formal system worthwhile. Moreover, Colombia’s commitment to financing social programs in the face of high informality has put pressure on government to find alternative ways to finance them. This has led, among other things, to increases in payroll taxes, which, in turn, have increased disincentives for formal employment. The result has been a kind of vicious circle in the labor market – high labor costs can induce a high level of informality, which, in turn, can raise pressure to finance benefits through increased payroll taxes, which further increases incentives for informality. A better understanding of the nature and impacts of informality can help the Government to design both more effective interventions and more sustainable financing strategies.

Objectives and Contributions of the Study

1.7 Against this background, the main objective of this study is to support the Government of Colombia in strengthening its social and economic policies through a better understanding of the nature, causes, and consequences of informality. The report focuses on providing a consistent analytical and empirical framework to shed light on the following questions:

- What is the size and nature of informality in Colombia, in terms of both workers and firms?
- What are the causes and consequences of worker exclusion or exit from the formal sector, and what are the implications for worker welfare in the informal sector?
- What are the links between worker informality and social policy – in terms of both how informality affects worker welfare, and how social policy affects informality?
• What are the causes and consequences of firm informality?
• What are the implications of high and persistent informality for public policy, as part of a broader development strategy focused on enhancing welfare and productivity?

1.8 To answer these questions, the report draws on several recent sources of quantitative and qualitative data, including new household survey data on informality collected by the Colombia Department of Statistics, DANE (Departamento Administrativo Nacional de Estadística), as part of the 2006 integrated Household Survey, Encuesta Continua de Hogares (ECH). This survey included a new section on informality developed by the World Bank and several Colombia stakeholders, including DANE, the National Planning Department (DNP), the Ministry of Social Protection (MSP) and researchers from the private sector. The report also draws on firm data from several enterprise surveys, including the 2001 Encuesta 123 and microenterprise surveys carried out by DANE between 2000 and 2003. The study supplements the quantitative data with qualitative data collected on worker informality through focus groups and key informant interviews carried out by a team of researchers from the Interdisciplinary Center of Regional Studies (CIDER), at the University of Los Andes.

1.9 While a number of studies have examined the issue of informality in Colombia, this report – and the process behind it – makes some important contributions to the debate. These contributions include:

• A consistent conceptual framework. The study analyzes informality using the conceptual framework presented in the recent World Bank flagship study on informality (Perry et al 2007). While, historically, most of the literature on informality in Latin America has tended to focus on informality as a function of economic exclusion, Perry et al (2007) show that informality is the region is both a function of both exclusion and exit, with some workers and firms opting out of the formal sector based on their assessment of the relative benefits and costs of formality versus informality. Utilizing the exclusion and exit framework (discussed in more detail in Chapter 2) facilitates a deeper understanding of the factors determining informality in Colombia, and thus of potentially effective policy responses.

• A measurement of informality that is more closely linked to policy. The traditional definition of informality used in Colombia is based on the International Labour Organisation (ILO) definition, which combines a number of factors including firm size, labor status, and occupation. Because this study is concerned specifically with worker welfare and firm productivity, the study adopted – in consultation with Colombian counterparts and researchers – separate worker and firm definitions and measures of informality. The measures used here (and discussed in greater detail in Chapter 2) allow for closer analytical links between worker and firm informality, on one hand, and the policy variables of interest, such as access to social protection, on the other.

• New, more detailed analyses of worker flows in and out of the sector, and of their reasons for informality. Building on the availability of a consistent conceptual framework, policy-relevant measures of informality, and newly available data, the study team carried out a richer set of empirical analyses than had been available previously – including not only a detailed static analysis of the informal sector, its size, who inhabits it, and so on, but also a dynamic analysis of worker flows in and out of the informal sector. In addition, the new ECH data enabled a detailed analysis of workers’ reasons for working in the informal sector, allowing the study to draw inferences about the extent to which informality is Colombia is a function of exit versus exclusion.

• International policy lessons and promising approaches over the short and longer terms. In addition to drawing on the rich Colombia-specific evidence generated for this study, the report draws on a significant body of recent international policy and program experience from other countries in the Latin America region and beyond. Moreover, the policy discussion presented in the final chapter recognizes that promising approaches may only be feasible in the longer term. For this reason, the
policy discussion distinguishes between long-term policy objectives and the short to medium-term measures that will be needed to achieve them.

1.10 It is important to note that the analysis presented in this report is based on data collected before the current economic downturn. Specifically, the data on workers from 2006, along with the firm data collected between 2001 and 2003, reflect patterns of worker and firm informality during a period of economic growth. The results should be interpreted in this context, as some of the findings regarding the size and nature of informality in Colombia could differ if based on more current data.  

Structure of the Report

1.11 This report is organized as follows: Chapter 2 lays out the conceptual framework used in the report, discusses how informality is measured, and places informality in Colombia in a broader regional context. Chapter 3 discusses the characteristics of the informal worker and the informal labor market, the causes of informality, and its welfare implications. Chapter 4 examines the links between worker informality and social policy – both how informality affects access to social protection and how social protection and labor policies affect informality. Chapter 5 focuses on the extent, causes, and consequences of firm informality. Finally, Chapter 6 discusses the potential policy implications of the analysis presented in this report. It identifies both longer-term policy opportunities and short to medium-term measures that can be taken to increase worker welfare, firm productivity, and the institutional capacity of the State.

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9 See Bosch and Maloney (2007) for a discussion of how the informal sector moves over the business cycle and the implications for workers’ welfare. Chapter 4 of Perry et al (2007) also discusses trends over the business cycle in various countries.
2. Conceptual Framework and the Measurement of Informality

2.1 To set the stage for the analysis and policy discussion that follow, this chapter: (a) presents the conceptual framework of exclusion and exit used in the study; (b) discusses the definition and measurement of informality in Colombia; and (c) examines informality in Colombia in a regional and global context, in order to clarify why informality of both labor and firms in Colombia is higher than in other countries of the region, particularly given Colombia’s level of development. As noted in Chapter 1, the conceptual framework, definitions, and measures of informality used in the report differ somewhat from those that have traditionally been used in Colombia and elsewhere in Latin America. The approach builds on recent advances in the literature on informality in the region, with an eye toward: (a) deepening policymakers’ understanding of the reasons why workers and firms are informal; and (b) building closer and stronger links between the phenomena of worker and firm informality and the policy instruments that the government can use to address these issues.

2.2 In contrast to the traditional views about informality in Latin America, which have tended to view informality *ex-ante* as a bad thing, this “exit” and “exclusion” framework does not require one to label informality as “bad” or “good” per se. Rather, it enables policymakers to better understand the sometimes complex and competing forces that are driving informality in the region. It also helps to focus policymakers’ attention on what actions are needed to maximize firms’ productivity and workers’ welfare in the face of differing motives and reasons for informality. In doing so, it also serves to highlight the key policy levers that policymakers can use to raise productivity and welfare, strengthen people’s productive links to the State, and improve the targeting of publicly provided benefits and services.

**Conceptual Framework – Informality as a Function of Both Exclusion and Exit**

2.3 The traditional paradigm for thinking about informality in Latin America (and elsewhere) has been *exclusion*, wherein it is presumed that workers and firms in the informal sector would prefer to be formal – registering with local authorities, paying taxes, having access to social security regimes, etc. – but are prevented from doing so for reasons related to the state of the economy or to the regulatory environment. The *exclusion and exit framework*, by contrast, posits that some of those in the informal sector actually prefer informality, given existing opportunities and constraints, and that they are not registered, do not pay taxes, and are not affiliated with social security as a matter of choice. That is, there are some in the informal sector who, upon making some assessment of the relative benefits and costs of formality and informality, choose to exit the formal system, even if the choice is not always perfectly informed. By thinking in terms of both routes to informality, and taking into consideration those benefits that some workers or firms perceive from informality, policymakers can be more effective in raising people’s welfare and productivity.

*Exclusion*

2.4 The common view of why workers and firms do not have a “formal” relationship with the State arose from work by Harris and Todaro in 1970. Their seminal paper posits that, in an economy with above-market clearing wages, some of the labor force will be employed in high-wage jobs while the rest will subsist in low-wage jobs, waiting until a high-wage job opens up. In other words, workers face a “segmented” labor market, and informal workers queue to get into the formal sector.

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10 This framework is presented in the recent World Bank flagship publication for Latin America, *Informality: Exit and Exclusion* (Perry et al 2007).
2.5 Over the years, many explanations for the above-market clearing wage have arisen, several of which may be relevant in Colombia today. Because this report is ultimately focused on public policy, this section focuses predominantly on those explanations with clear links to policy. One explanation is that wages may be set artificially high via a statutory minimum wage. Colombia has a high minimum wage relative to other Latin American countries,\(^{11}\) which results in higher wages for those in the middle of the income distribution, but lower wages and incomes for those in the lower half of the income distribution.\(^{12}\) This suggests that the minimum wage is set too high to help the poor, and may be an important segmenting force in the labor market. This would lead to some workers “subsisting” in the informal sector while waiting to obtain a minimum wage job.

2.6 Another explanation is that the wage may be high if the employer is required to pay a costly benefit package in addition to legally mandated wages. Colombia has one of the most costly benefit packages in Latin America,\(^{13}\) for which employers and employees are required to pay the government at least 58 percent of the worker’s wage in the form of social security taxes, health taxes, taxes to fund other social programs (the National Training Program, SENA; the National Childcare System, ICBF), taxes for worker clubs (Cajas de Compensación), etc. (Box 2.1). This has the potential to push the total wage bill above the market-clearing wage, thus limiting the number of workers a firm is willing to hire formally. Further, while the costly severance package may not impose a direct cost on employers, it may create a higher expected wage bill, thus causing employers to be less willing to take on the risk of hiring new employees, particularly those without proven productivity. These tend to be the young or female workers who have less labor market experience than older or male workers.\(^{14}\)

2.7 The exclusion paradigm also posits that, from the point of view of the worker, constraints in the access to jobs manifest themselves in two possible ways. First, workers who are excluded from formal jobs could work in so-called “subsistence” jobs, as Harris and Todaro propose; this could be interpreted as self-employment without any connections to the state or to the benefits achieved through the employment-state relationship. Second, people may work for firms which, knowing that the high market wage excludes large numbers of people, choose to hire workers at the informal sector wage. Here, again, workers have no access to benefits accessed via formal labor contracts.

2.8 The state may also establish regulations that, while they may be well intended, effectively exclude firms from a relationship with the state. Specifically, tax policies and business regulations may be intended to improve the business climate, but when enforced, may make doing business prohibitively expensive to some firms. Thus, even if those firms wanted to be connected to the state, that would not be a viable option given their slim profit margins. This may be particularly important in the case of small or young firms that operate in a highly competitive environment. Such firms may find it hard to amortize the fixed costs associated with regulatory compliance – e.g., the costs of firm registration, permits, and licenses – that may be a non-issue for larger, more established firms.

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14 Another possible reason is that firms choose to set wages higher than the market-clearing wage in exchange for lower monitoring costs – what is known in the economics literature as “efficiency wages.” Particularly in the case of large firms, monitoring of workers’ performance is difficult, so employers may set wages above what workers would be able to earn elsewhere, with the expectation that workers will work hard (avoid “shirking”) to avoid losing these highly paid jobs.
Box 2.1: Non-Wage Labor Costs in Colombia

Non-wage costs include payroll tax contributions used to finance contributory health insurance, pensions, and professional risk insurance. They also include *parafiscales*, mandatory contributions that fund training (SENA), child and family welfare services (ICBF), and Workers’ Family Assistance Funds (Cajas de Compensación Familiar, CCF). Other non-wage costs include set-asides for severance payments, paid vacations, and mandatory bonuses.

<table>
<thead>
<tr>
<th>Program</th>
<th>Percentage of Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pensions</td>
<td>16.0%</td>
</tr>
<tr>
<td>Health insurance</td>
<td>12.5%</td>
</tr>
<tr>
<td><em>Cesantias</em> (severance fund)</td>
<td>8.3%</td>
</tr>
<tr>
<td>Vacation</td>
<td>4.2%</td>
</tr>
<tr>
<td><em>Primas de servicios</em> (bonuses)</td>
<td>8.3%</td>
</tr>
<tr>
<td>Severance payment for unjust dismissals</td>
<td>varies according to the type and duration of labor contract. The lowest value is around 4.23% in the case of time-bound contracts.</td>
</tr>
</tbody>
</table>

“*Parafiscales*”

<table>
<thead>
<tr>
<th>Program</th>
<th>Percentage of Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>SENA (training)</td>
<td>2%</td>
</tr>
<tr>
<td>ICBF (family and child welfare)</td>
<td>3%</td>
</tr>
<tr>
<td>Cajas de Compensación Familiar</td>
<td>4%</td>
</tr>
</tbody>
</table>


Note: Some non-wage costs vary according to the wage level and profile of the worker.

**Exit**

2.9 Considering exit as well as exclusion as a factor in informality allows policymakers to take into account the fact that workers care about welfare maximization. Being registered with the state via one’s job or having access to public benefits becomes one of the elements that a worker takes into account when deciding on its labor supply. If a worker undertakes some kind of cost-benefit calculation upon selecting a job, there are several reasons why that worker may choose to opt out of the State system. First, formal job benefits are only one piece of the puzzle that workers consider when considering the type of job to accept. Workers may consider the wage level, work hours (number of hours, flexibility of hours), work conditions, the nature of the work, and location of the job, among other things, when they consider accepting a job. Whether or not the job is registered with the State and eligible for benefits is, thus, only one factor in the whole package, and it may have a lower weight than other factors (or the collection of other factors). A recent study on Mexico found, for example, that Mexican mothers tend to prefer informal employment in their homes to facilitate both earning and fulfillment of their household responsibilities, and that they are willing to forego affiliation with the State in return for the flexibility of home-based work.  

2.10 Second, workers may not value some or all of the social security benefits they are required to “purchase” via payroll taxes as part of the formal sector job package and, thus, may prefer not to work under such an arrangement. For example, workers eligible for the subsidized health insurance regime (*Regimen Subsidiado*), which is free for poor Colombians (SISBEN I and II), may not sufficiently value the additional procedures that are covered under the formal sector’s contributory health insurance program to want to pay for them with via payroll taxes. A recent court decision, which instructs the state to provide equal benefits to both health programs could potentially further reduce the value of the contributory regime. Or, there may be a feeling that the quality of some services offered through formal

15 Cunningham and Ramos, 2006.
social security is lower than what could be obtained through other means (e.g., by private healthcare providers). Low valuation of some benefits may also be due to individuals’ “myopic” preferences. As discussed further in Chapter 4, many poor Colombians in the informal sector say they need – or prefer – to have cash today rather than contribute it toward pension savings for the future.\textsuperscript{16}

2.11 Third, some workers may feel that there are less costly ways of obtaining the same benefits, thus preferring to not pay into the formal system. Galiani and Weinschelbaum (2006) show, for example, that secondary workers in Argentine households (e.g., wives of working spouses) have a much higher incidence of informal employment when the primary worker in the household is a recipient of benefits that cover the whole household. Some of the benefits in the Colombian system – e.g., contributory health insurance – are designed such that secondary workers may not value the marginal coverage they get through direct affiliation, because all dependents of the registered worker are covered by the benefits. Moreover, informal risk management – or coping – strategies may sometimes be preferred to more formal State-provided services. A World Bank study of a crisis period in Argentina showed that when households were faced with unexpected shocks, very few turned to the State, while most relied on family and friends.\textsuperscript{17}

2.12 Firms may have similar reasons for opting out of the system. The firm’s objective is to maximize profits, and registering with the State to receive benefits incurs costs. If firms view that the costs of registration exceed the benefits, they may choose to opt out of the tax and regulatory system. Moreover, recently created firms may choose to avoid the red tape and monetary costs associated with formalization until they have sufficient evidence regarding their profitability and the likelihood that their business will survive. In some cases, firms may also have less expensive substitutes to what the State offer formally, or have alternative modes of access to State benefits at a lower cost (e.g., SENA training services, which are free to any Colombian citizen). Firms might also find it easier to attract the workers they effectively need when they can have certain flexibility in terms of hours, wages, working conditions, seasonality, as well as hiring and firing procedures that formalization does not permit. Also, given their very restricted markets, many informal micro-enterprises may find it more efficient to use informal contract enforcement mechanisms and to operate on the basis of internal sources of finance. As such, they may place little value on either market- or government-provided services available to formal firms.\textsuperscript{18}

\textsuperscript{16} Some workers also express concern that they may never get back the money that they would contribute toward formal sector pensions (see Chapter 4).
\textsuperscript{17} World Bank, 2001.
\textsuperscript{18} As discussed further in Chapter 5, there is a very high prevalence of one- and two-person firms in Colombia’s informal sector. In the case of one-person firms, firm and worker are the same thing, whether in the informal sector as a result of exclusion or exit.
Applying the Framework: Heterogeneity among Workers and Firms

2.13 Application of the exclusion and exit framework in other countries in Latin America indicates that no single country is characterized solely by either one. Instead, there is a continuum of circumstances, in which some segments of the labor force and firm sector are characterized more by exit, while others are characterized more by exclusion. Moreover, any one worker or firm may not be fully characterized by exit or exclusion. As stated by one firm owner in Colombia, “we are all a little bit informal,” so it will be important to identify which aspects of a job or a firm are more or less formal and why. The question is the degree of exit or exclusion, who falls under which category, and how to design policies to improve the situation of each segment of the heterogeneous labor force and firm sector.

Measuring Informality

2.14 Finding a suitable measure of informality in Colombia is a challenging enterprise, since the literature contains a number of different definitions and measures that one can choose from. According to the available internationally comparable indexes, the level of informality in Colombia is generally similar to that of other medium and large Latin American countries, but considerably above the levels of Chile and the United States. Schneider (2007), for instance, estimates that the “shadow economy” – which he defines as including “all market-based legal production of goods and services that are deliberately concealed from public authorities” – represents about 43 percent of Colombia’s GDP (Figure 2.1). This is compared to 42 percent for Brazil, 58 percent for Peru, 32 percent for Mexico, and 27 percent for Argentina. Colombia’s informality is also more than twice that of Chile (19 percent) and more than five times that of the United States (8 percent).

![Figure 2.1: Shadow Economy as Percent of GDP (2004-2005)](image)

Source: Data from Schneider (2007).

2.15 While this definition is consistent with the conceptual approach used in this report, a number of caveats should be mentioned regarding Schneider’s empirical methodology. Schneider combines the dynamic multiple-indicator-multiple-cause (DYMIMIC) method, the physical input (electricity) method, and the excess currency-demand approach. However, Perry et al (2007) have criticized Schneider’s use of the DYMIMIC method for its combination of different causal factors and indicators, as well as for the sensitivity of the results to data transformations and changes in sample and measurements units. As for

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the physical input and the excess currency-demand approaches, they both rely on unrealistic assumptions about base years in which the shadow economy would be negligible. Both methods serve to estimate only rates of change in shadow activities, but need those assumptions to calculate levels of informality. Moreover, those methods rely on assumptions about, respectively, constant coefficients of use of physical inputs and constant velocities of circulation of money, both of which are questionable.

**Figure 2.2: Heritage Foundation Informal Market Index (range 1-5)**


2.16 Because of these caveats, it is useful to assess whether other international data sources yield measures that are consistent with those implied by Schneider’s calculations. Alternatives include the Heritage Foundation’s Informal Market Index, the rate of self employment compiled by the ILO, and the percentage of the workforce that lacks pension coverage, as estimated in the World Bank’s World Development Indicators. The Heritage Foundation index is based on subjective perceptions of general compliance with the law, with particular emphasis on the role played by official corruption. It suggests that informality in Colombia – where the index is 3.8 on a scale of 1 to 5 – is only slightly above the levels found in Peru, Brazil, Mexico, and Argentina – which have indexes ranging between 3.4 and 3.6 (Figure 2.2). Consistent with Schneider, however, the Heritage Foundation places Chile and the U.S. well below these countries, with informality indexes of, respectively, 1.6 and 1.4.

**Figure 2.3: Self Employment and Workers without Pension Coverage (% of labor force)**


2.17 The indexes of labor market informality (Figure 2.3) suggest country rankings that are broadly consistent with Schneider’s. Colombia’s self-employment rate of 33 percent, in particular, is below that of
Peru (41 percent), close to that of Brazil (31 percent), and above those of Argentina, Chile, and Mexico (between 27 percent and 29 percent). Similarly, the fraction of the labor force that lacks pension coverage is highest in Colombia (80 percent) and Peru (78 percent). This index, however, is considerably lower in other countries of the region: 68 percent in Mexico, 56 percent in Argentina and Brazil, and 29 percent in Chile. Overall, figures 2.1 to 2.3 suggest that Colombia has informality levels that are somewhat above those of other medium and large Latin American countries, with the largest differences obtained in the comparisons with Chile.

2.18 The most commonly used measure, in Colombia and internationally, is derived from the International Labour Organization (ILO) and captures a mixture of firm size, occupation, relation of the worker to the firm owner, labor arrangements, and skill levels to identify “informal sector worker.” Specifically, informal workers in Colombia are typically defined as: “Employees and employers working in firms with less than 10 workers, unpaid family workers, domestic household workers, and self-employed individuals who are not professionals or technicians”.

2.19 A key assumption underlying this definition is that most people working in small or household-based production units face more precarious or “vulnerable” employment situations than those in larger firms or enterprises. The definition sheds little light, however, on why people may be informal, or why the welfare of a worker in a small enterprise could differ significantly depending on whether he or she is there as a result of exclusion or exit. It also implies that informality in medium- and large-sized is either insignificant or inconsequential, which is not necessarily the case. Finally, the ILO measure does not directly address either workers’ or firms’ relation to the State, or their access to public goods and services.

2.20 Other commonly used measures of informality are based on different assumptions about the nature of the problem. These measures include: the share of the labor force in self-employed activities, the share of the labor force not covered by a pension scheme, the percentage of sales that go unreported, and the size of the shadow economy. In general, each measure focuses on and captures a particular dimension of a rather complex, multi-dimensional issue.

2.21 This report takes a somewhat different approach, which may be useful to policymakers concerned with enhancing the welfare and productivity of workers and firms by increasing their access to public goods and services. For purposes of the report, we identify two main sets of measures – one related to informal workers and the other to informal firms – that directly capture the extent to which the worker or firm is linked to the State and/or to relevant public goods and services.

- On the worker side: a worker is considered informal if he or she does not make contributions to Colombia’s contributory health insurance and pension programs.
- On the firm side: a firm can be considered informal if it does not undertake certain obligations to the State, such as commercial registration, paying taxes, or paying social security contributions on behalf of its workers.

These measures, discussed in detail below, also establish a closer link between the analysis of informality and the appropriate public policy levers to address it.

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21 Chapter 3 examines evidence on workers’ welfare, using data from the Encuesta Continua de Hogares (ECH) from 2006 that collected information on workers’ motivations for taking jobs of different types of work – self-employed versus salaried and formal versus informal – as well as workers’ job satisfaction, the desire to find changes jobs, etc.

22 For a detailed discussion of the commonly used measures of informality in Latin America, see Perry et al (2007).
Informal Workers

2.22 A key concern about informality among workers is that they are not adequately protected against risk or shocks, and that they have only limited access to a range of formal risk management instruments, such as health insurance and old-age income security. In this context, a definition/measure that captures workers’ access – or lack of access – to these basic facets of social security coverage is appropriate. For purposes of this report, therefore, if a worker contributes to the contributory health insurance and pension regimes, his/her job is classified as “formal.” If a worker does not contribute to contributory health insurance and pensions, then his/her job is classified as “informal.” This definition captures the extent to which the employee has a job tied to a standard set of rights and benefits guaranteed by the State and by the legal framework.

2.23 Bernal (2007), who undertook an extensive analysis of 27 different possible measures of worker informality using data from the 2006 Household Survey (Encuesta Continua de Hogares, ECH; see Box 2.2), found that the “health and pensions” definition of informality has a number of advantages. In particular, it:

- adheres to the basic concept of informality as employment that goes unreported and thus leaves the worker unprotected by the regulatory framework;
- is a good indicator of whether or not the worker has access to the full benefits package associated with formal employment in Colombia;\(^{24}\)
- is highly correlated with other definitions of informality (e.g., existence of a written contract), without confounding the conceptual basis of the definition;
- can be calculated using readily available survey data, thus facilitating its use and comparison with other data sources in Colombia\(^{25}\); and
- facilitates international comparisons, given that informality definitions based on social security contributions have been widely adopted in other countries.

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\(^{23}\) This section draws largely from Bernal, 2007.

\(^{24}\) This includes not only health insurance and pensions, but professional risk insurance, severance, job training, and access to worker clubs (the Cajas de Compensación Familiar).

\(^{25}\) For example, Fedesarrollo’s Social Survey.
Box 2.2: Methodology for Selecting a Definition and Measure for Worker Informality in Colombia

The World Bank informality study team worked together with Government of Colombia counterparts from the National Planning Department (DNP) and the Ministry of Social Protection (MSP) as well as with Colombian Policy Researchers from the University of Los Andes and Fedesarrollo in a participatory and iterative process to identify an appropriate, policy relevant definition of worker informality to be used for this study. Through team discussions, several criteria were establishing for identifying possible measuring. Among other things, it was agreed that any definition and measure of worker informality in Colombia should:

- capture the normative dimensions of employment; i.e. identify if workers are covered by the legal regulatory framework
- be correlated with or “capture” other widely used definitions
- allow comparability with international data
- be easily measured with various Colombian data sources to allow for comparability with other analyses of informality

Against this background, Bernal (2007) analyzed in detail the 2006 Encuesta Continua de Hogares (ECH) data to identify the most appropriate measure. To do this, Bernal (2007):

- constructed a list of 27 candidate definitions/variables from the ECH
- measured the size of the informal sector under each definition
- dropped those definitions that appeared to mis-represent or mis-measure the situation (e.g., indicated a size of the informal sector that was far from other, more standard definitions), and
- dropped those definitions with a low degree of overlap or correlation with other, commonly used definitions

Through this empirical process and a subsequent “validation” process with the counterparts and policy researchers, the “health and pensions” definition was selected as the most appropriate measure for this study.

2.24 It should be noted that the “health and pensions” measure of worker informality captures access to State benefits through one’s job, and thus focuses attention on the job-social security nexus. As a result, if a person receives a benefit through non-employment means – for example, through affiliation of a spouse rather than through his/her own job, or is eligible for a non-contributory benefit in health or pension by virtue of his/her socio-economic status (SISBEN I or II), then the person as a “worker” would be considered informal, even though that person may have links to Colombia’s social security or broader social protection system. Further, the “health and pensions” definition does not require that the worker be currently eligible for the benefit in order to be categorized as formal. Specifically, those who pay into the pensions system will not be eligible for a pension until they have contributed for 20 years, but their time contributing is not an issue under this definition, only that they contribute and, thus, that their job is recognized by the State.

2.25 Table 2.1 presents estimates of worker informality at the national level, as well as for urban and rural areas, using five different definitions of informality: the ILO definition, the “health and pensions” definition used in this report, a definition focused solely on pension coverage, a definition based solely on firm size, and one based on the worker not having a written work contract. As can be seen, the estimated size of the informal sector at the national level varies fairly significantly – from 51.2 to 74.2 percent – depending on the measure. The definition based purely on firm size (5 or fewer employees) generates the lowest estimate of worker informality, while the definitions based on worker rights and benefits (e.g., written labor contract, pensions, or health and pensions) generate relatively higher estimates. The “health and pensions” measure adopted in this report generates the highest estimate – 74.2 percent of the labor force – while the ILO definition falls in between the high and low estimates, at 67.5 percent of the labor force. As can also be seen from the table, estimated informality is higher in rural than in urban areas, regardless of the measure used.
Table 2.1: Definitions and Count of Informal Sector Workers

<table>
<thead>
<tr>
<th>Definition</th>
<th>Share of the labor force* defined as informal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>ILO Definition: Employees and employers working in firms with less than 10 workers, unpaid family workers, domestic household workers, and self-employed individuals who are not professionals or technicians</td>
<td>67.5</td>
</tr>
<tr>
<td>Health and Pensions Definition: individual makes contributions to pensions and health</td>
<td>74.2</td>
</tr>
<tr>
<td>Pensions Definition: individual makes contributions to pensions</td>
<td>72.5</td>
</tr>
<tr>
<td>Firm size: individual works in a firm of 5 employees or fewer</td>
<td>51.2</td>
</tr>
<tr>
<td>Labor contract: individual does not have a written work contract</td>
<td>72.9</td>
</tr>
</tbody>
</table>

Source: Bernal, 2007

* “Labor force” is defined here to include employees, self-employed workers, employers, unpaid family workers, and “other” unspecified workers, as reported in the 2006 ECH survey. For further details, see Bernal (2007).

2.26 One final point on the definitions of worker informality: While both the ILO definition and the “health and pensions” definition used in this report generate reasonably similar estimates of worker informality in aggregate, there are some important differences. As noted above, the “health and pensions” definition links informality directly with the absence of access to formal risk management instruments provided and mandated by the State. This provides a close link between the measure of informality and specific policy variables. In addition, the “health and pensions” definition does not assume that informality is largely a function of the size of the enterprise. Indeed, analysis of the distribution of informal workers by firm size suggests that a more nuanced view is needed (Box 2.3).

Box 2.3: Worker Informality and Firm Size

Several common definitions for worker informality, including the ILO definition, are based either partly or wholly on firm size. The underlying assumption is that informality is a function of “smallness.” While the data support the idea that informal workers are more concentrated among smaller firms, they also suggest the need for a more nuanced view. While just over two-thirds of formal workers in the sample work for larger firms – those with more than 30 employees – about 15 percent are affiliated with firms with less than 10 workers. Similarly, while most informal employees work in small firms, roughly one-quarter work in firms with 10 or more employees. This phenomenon of informal employees in large firms appears to be increasingly important the Latin America, where medium and large firms will employ some workers formally and others informally. Not surprisingly, unpaid workers are highly concentrated very small “firms”. It should be noted that this most likely reflects labor working in family enterprises in which “payment” is either made in kind or via intra-household sharing of enterprise incomes.

Box Table 2.1: Distribution of Employees across Firm Sizes (%)

<table>
<thead>
<tr>
<th>Sector</th>
<th>1-4</th>
<th>5-9</th>
<th>10-18</th>
<th>19-29</th>
<th>30+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>8.4</td>
<td>6.3</td>
<td>6.9</td>
<td>8.3</td>
<td>68.2</td>
</tr>
<tr>
<td>Informal</td>
<td>45.7</td>
<td>12.9</td>
<td>6.3</td>
<td>5.9</td>
<td>12.3</td>
</tr>
<tr>
<td>Unpaid</td>
<td>87.7</td>
<td>4.6</td>
<td>0.6</td>
<td>0.2</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Informal Firms

2.27 Measuring firm informality is not a simple task. As suggested above (Box 2.3), firm informality can take many different forms and exist to different degrees. While many very small firms can be safely characterized as informal because of their complete avoidance of government registration, taxes, and social security contributions, many others are in a gray area characterized by compliance with some government regulations but not with others.

2.28 Firm-level data from two different surveys in Colombia – the Encuesta 123 and the Micro-establishment Survey – enable one to consider four different possible definitions of firm informality: (a) non-registration with the commercial registry (Registro Mercantil), (b) non-utilization of formal accounting practices, (c) nonpayment of taxes, and (d) nonpayment of worker benefits (i.e., payroll taxes, parafiscales). Table 2.2 shows the share of firms that would be considered informal by any one of those definitions. The shares range from 42.2 to 73.9 percent, depending on the particular measure and survey. The fact that these measures differ, even within the same survey, means that firms may be at once formal in one dimension but informal in others.

<table>
<thead>
<tr>
<th>Definition</th>
<th>Share of informal firms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Encuesta 123 (2001)</td>
</tr>
<tr>
<td>Not registered with the registro mercantile</td>
<td>46.2</td>
</tr>
<tr>
<td>No formal accounting practices</td>
<td>56.6</td>
</tr>
<tr>
<td>Nonpayment of taxes</td>
<td>62.2</td>
</tr>
<tr>
<td>Nonpayment of worker benefits</td>
<td>73.9</td>
</tr>
<tr>
<td></td>
<td>Encuesta de Microestablecimientos (2003)</td>
</tr>
<tr>
<td></td>
<td>42.2</td>
</tr>
<tr>
<td></td>
<td>53.5</td>
</tr>
<tr>
<td></td>
<td>67.4</td>
</tr>
</tbody>
</table>


2.29 As shown in the table, firm registration with the registro mercantil and utilization of formal accounting procedures are more common practices among firms than are paying taxes or paying worker benefits. In the case of firm registration, roughly 46 percent of firms can be considered informal (in both surveys). Clearly, gauged in terms of the share of firms that pay worker benefits, firm informality would be considered much higher – as high as 73.9 percent in the case of the Encuesta 123. It is interesting to note that the share of firms that are informal based on not paying worker benefits is roughly similar to the share of workers who are classified as informal according to the “health and pension” benefits definition discussed above.

2.30 Is there a “best” measure of firm informality? As discussed further in Chapter 5, given the complexity and multi-dimensionality of informality among firms, it is useful to keep in mind a range of measures that can help characterize firm informality. Nonetheless, based on extensive analysis of the firm-level data, Cárdenas and Rozo (2007) argue that not being “registered with the registro mercantil” is the best single proxy for firm informality in Colombia. Registering a firm with the commercial registry appears to be something of a gateway to the other actions associated with firm formalization, whether adopting formal account practices, paying taxes, or paying worker benefits. For example, fewer than 15

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26 Unless otherwise indicated, the results in this section are from Cárdenas and Rozo, 2007.
27 The Encuesta 123, carried out by DANE, is a detailed micro-firm survey. The sample frame is selected by, first, identifying firm owners who self-report in the Gran Encuesta de Hogares, second, keeping only those firm owners who meet at least one of the following criteria – firm smaller than 10 workers, do not have an accounting methodology, a one-person firm – and, third, carry out the Encuesta 123. The survey was carried out in 2001 in 13 metropolitan areas, with a sample size of 9240. [Add description of Micro-establishment Survey]
percent of firms that do not register with the *registro mercantile* pay taxes or pay worker benefits. Thus, the authors argue, lack of registration with *registro mercantile* largely captures the other definitions of informality. In contrast, only about half of the firms that do not pay worker benefits are not registered in the *registro mercantil*, indicating that the former measure is not a good proxy for the latter.

**Overlap between Firm and Worker Measures**

2.31 While the ECH data do not enable one to examine directly the overlap between firm and worker informality, the Encuesta 123 does allow one to assess the degree to which small formal and informal firms pay benefits for their workers. Figure 2.1 illustrates the degree of overlap between firm formality, as defined by being registered with the *registro mercantile*, and the paying of benefits for workers, a rough proxy for the number of workers who are formal under the “health and pensions” definition discussed above.  

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**Figure 2.4: Overlap between Formal Firms and Formal Workers**

- **Firm formality (53.8%)**
  - 21662 firms registered with *registro mercantile* but not contributing to Social Security (33.8% of total)
  - 1280 firms registered and contributing to Social Security for their workers (20.0% of total)

- **Firm informality (46.2%)**
  - 369 firms not registered but contributing to social security for their workers (6.1% of total)
  - 2568 firms not registered and not contributing to Social Security (40.1% of total)

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2.32 There is a high correspondence between firm informality and informal workers (Figure 2.4). 46.2 percent of all firms in the *Encuesta 123*, which surveys small firms, are considered informal (firms that are not registered). About 87 percent of these (40.1 percent out of 46.2 percent) are not registered and do not contribute to employee benefits – showing that about 87 percent of workers in informal firms can be defined as informal. On the other hand, 6.1 percent of the firms in the survey are informal (not registered) but actually do pay benefits to their workers. Thus, around 13 percent of workers in informal small firms (6.1 percent out of 46.2 percent) are considered formal (contributions to Social Security are made on their behalf).

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28 This methodology requires that we assume that the number of workers is distributed equally across firms with and without the *registro mercantil* and those who pay benefits. Since this is unlikely, Figure 2.1 should be interpreted as a rough estimate of the degree of overlap of the two definitions.
In contrast, nearly 54 percent of firms in the Encuesta 123 are registered with the registro mercantil and, thus, considered formal (33.8 percent + 20.0 percent in the figure). However, more than 60 percent of those formal firms do not pay benefits for their workers (33.8 percent out of 53.8 percent). Only around 40 percent of these small formal firms actually pay benefits to their workers (20.0 percent out of 53.8 percent), again highlighting that firm formality is not a sufficient condition for worker formality.

**Colombian Informality in the Regional Context**

Before moving to the deeper characterization of informality in Chapter 3, it is useful to briefly put informality in Colombia into the broader regional context. While existing cross-country data do not conform exactly to the definitions of informality presented above, there are related measures that can help to place worker and firm informality in a regional perspective.

Several cross-country analyses have looked at informality through the lens of worker access to pension benefits. Perry et al (2007) present two different measures, based on household survey and World Development Indicators (WDI) data, respectively; and Rofman and Luchetti (2006) present additional measures based on household survey data from the region. While the different data series are not strictly comparable for a variety of reasons, together the data paint a fairly consistent picture. In terms of raw data comparisons, the evidence suggests that worker informality in Colombia is not particularly out of line with the rest of the region. Broadly speaking the data place worker informality – defined as lack of access to or participation in pension programs – either slightly above or slightly below the regional average, depending on the measure. In that sense, Colombia does not appear to be an “outlier” in terms of worker informality.

On the firm side, cross-country data exist on firms’ under-reporting of sales taxes. As with worker informality, the raw data suggest that Colombia is roughly in line with regional averages. For example, the share of Colombian firms not reporting sales tax is only marginally higher than the Latin American average of 22 percent (Perry et al 2007). Of the 17 Latin American and Caribbean countries for which data are reported, higher evasion levels are found in 7 countries, while lower evasion levels are found in 10 countries. So, as with worker informality, Colombia does not appear to be a regional outlier.

It is important to note, however, that most measures of informality have significant inverse relationships with per capita GDP (Perry et al 2007). Therefore, controlling for GDP can help clarify (relative to the raw data) whether Colombia is more or less informal than one would expect, given its level of economic development. While the data suggest that on the firm side, Colombia is roughly in line with expectations, given its per capita income, data on worker informality seems to tell a slightly different story. As shown in Figure 2.5, in the early 2000s Colombia’s level of worker informality – measured by the proportion of the economically active population not contributing to social security coverage – was slightly above what would have been expected given its level of per capita GDP. The finding is more dramatic, however, if one examines informality in Colombia from a global perspective. A recent analysis, using global data from the World Development Indicators, analyzes Colombia’s level of pension coverage, controlling for per capita GDP (Forteza 2007). Indeed, when informality is defined as lack of

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29 In addition to using different data sources, the definition of pension access is defined slightly differently in each of the measures. Moreover, one source presented in Perry et al (2007) focuses solely on the share of salaried workers lacking pension rights, while another source focuses on the entire labor force. Rofman and Luchetti (2006) present estimates for the entire economically active population, for employed workers (only), and for salaried workers (only).
pension coverage at the global level, informality in Colombia is substantially higher – about 20 percentage points – than would be expected given its per capita GDP.

![Figure 2.5: Informality in Latin American, by per capita GDP (early 2000s)](image)

Source: Adapted from Rofman and Luchetti (2006)

2.38 Regardless of whether Colombia is seen as having slightly or substantially higher labor informality than would be expected, given international norms, the level of informality in absolute terms has important implications for worker welfare and firm productivity, and through these factors on economic growth and long-term poverty reduction. To develop appropriate policies and programs to address informality, policymakers need to better understand the characteristics of informal workers and firms, why they are not registered with the State, and the implications of their situation for the well-being of the Colombian people and the Colombian economy. It is precisely these issues that are addressed in the remainder of this report.
3. Informal Workers in Colombia

3.1 As noted in Chapter 2, about 74 percent of the Colombian labor force can be classified as working in jobs not formally affiliated with the state, and not paying labor taxes that are earmarked for health and pensions. This chapter uses new data collected as an additional module to the 2006 ECH to examine who these workers are; analyze why they are informal, taking guidance from the exit and exclusion framework to discuss their mobility between the informal and formal sectors; and explore the reasons why their welfare is generally lower than the welfare of formal workers.

Characterizing Labor Informality by Job Type

3.2 Much of the literature on informality discusses the phenomenon as if there were a simple binary division between the formal and informal sectors. But there is actually a great deal of heterogeneity within and across the two sectors: heterogeneity in job type, in people’s reasons for being formal or informal, and in the welfare implications of informality. Background work undertaken for this study by Bernal (2007) highlights four different job types. Employees – or salaried workers – are classified as those who receive a wage in exchange for work. Self-employed workers are those who own their own firm and do not have any paid employees; in some cases, however, they may have unpaid employees. Employers also own their own firms, but they have at least one paid employee who works for them. Unpaid workers are those who work for someone else but do not receive remuneration for the services provided, often in the context of a family enterprise.

3.3 How does informality break down by job type? Table 3.1 shows the share of the working population that is informal, using the “health and pensions” definition discussed in Chapter 2, broken down by job type and urban or rural area. The table shows informality rates for only three of the four categories – employees, self-employed workers, and employers. It does not include unpaid workers, as Bernal (2007) finds that essentially all unpaid workers are informal and would not be expected to contribute directly to benefits financed through the payroll tax system. Informality rates in Colombia are high among all job categories and in both urban and rural areas, but there are some important differences across sub-groups. In particular, a much smaller share of employees than self-employed workers or employers are informal. About 56.6 percent of all employees are informal, compared to 95.6 percent of self-employed workers and 90.3 percent of employers at the national level. Rates of informality are considerably higher in rural than in urban areas. For example, 99 percent of rural self-employed workers and 80 percent of rural employees are informal. This compares to 94 percent of self-employed workers and 50 percent of employees in urban areas.

30 The analysis presented in this and the following section is based on the background paper, “The informal Labor Market in Colombia: Identification and Characterization,” Bernal (2007), unless otherwise noted.

31 Empirical work from other countries has shown that the informal sector is quite heterogeneous. See Cunningham and Maloney (2001) for Mexico, World Bank 2008 (forthcoming) for Argentina, Maloney (2005) and Perry et al (2007) for the Latin America and Caribbean region in general.

32 Conclusions regarding the relative magnitudes of informality across job-type and region are robust to other commonly used definitions of informality, although point estimates regarding the size of the informal workforce differ somewhat. For details see Bernal (2007).
Table 3.1: Share of Main Job Categories Classified as Informal (2006), Using the “Health and Pensions” Definition

<table>
<thead>
<tr>
<th></th>
<th>Total Labor Force</th>
<th>Employees</th>
<th>Self-employed Workers</th>
<th>Employers</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>74.2</td>
<td>56.6</td>
<td>95.6</td>
<td>90.3</td>
</tr>
<tr>
<td>Urban</td>
<td>68.8</td>
<td>49.9</td>
<td>94.4</td>
<td>86.1</td>
</tr>
<tr>
<td>Rural</td>
<td>90.5</td>
<td>80.9</td>
<td>99.1</td>
<td>99.2</td>
</tr>
</tbody>
</table>

Source: Adapted from Bernal, 2007

1 “Labor force” is defined here to include employees, self-employed workers, employers, unpaid family workers, and “other” unspecified workers, as reported in the 2006 ECH survey. For details, see Bernal (2007).

3.4 Nationally, nearly 48 percent of the informal labor force is made up of informal self-employed workers, with a slightly higher share in urban areas (Figure 3.1). Informal employees make up most of the rest of the informal sector, comprising roughly 40 percent of the national, urban, and rural labor force. This distribution of jobs in the informal sector reflects not only informality rates in each job category, but also each group’s share in the workforce. Employees (both formal and informal) make up roughly 54 percent of the working population, while self-employed workers (both formal and informal) make up an additional 37 percent of that population (Bernal 2007). Thus, while most employers and essentially all unpaid workers are informal, these two groups make up very small shares of the labor force (4.5 and 4.3 percent, respectively) and, as such, do not represent large shares of the informal sector as a whole.

3.5 With respect to the composition of the total labor force – both formal and informal – at the national level, the breakdown by job category is as follows:

- 35.3 percent are informal self-employed workers;
- 23.5 percent are formal sector employees;
- 20.7 percent are informal sector employees;
- 4.3 percent are unpaid workers;
- 4.1 percent are informal sector employers;
- 1.6 percent are formal self-employed workers; and
- 0.4 percent are formal sector employers.

Because employers – whether formal or informal – make up relatively small shares of the labor force, much of the discussion that follows in this chapter (and in Chapter 4) will focus on the other categories of workers, and in particular, self-employed workers and employees, who make up the largest segments of the labor force. Issues related to employers – and to firms more generally – will be examined in greater detail in Chapter 5.
Who Works in the Informal Sector?

3.6 The key socio-economic factors associated with informal workers are gender, age, race/ethnicity, education, and income level.

3.7 Gender. More men than women work in the informal sector – although in urban areas, women have a higher likelihood of being informal. In most job categories, men make up a larger share of informal workers than do women. Men make up 61 percent of informal self-employed and informal salaried workers, while they make up 76 percent of informal employers (Bernal, 2007). The higher share of men in the informal sector is not surprising, given that men make up roughly 60 percent of the labor force as a whole. At least in the two largest job categories, therefore, representation of men and women in the informal sector is roughly proportional to their shares in the broader labor market. The job category where women hold a higher share is in the unpaid sector, often associated with family labor; here, women make up 56 percent of all workers.33

3.8 Consistent with this, the distribution of male and female workers across the formal and informal sectors, by job category, is remarkably similar, suggesting that neither women nor men are particularly over- or under-represented in any one group (Figure 3.2). There are some important differences, however. As noted above, working men are more likely than working women to be employed in informal self-employment or as informal employees; while working women are more likely to be formal sector employees (as a share of their total employment) and unpaid workers. The fact that the share of women working in formal employment (as a percentage of all women workers) is slightly higher than that of men (as a percentage of all male workers) sets Colombia apart from other countries in Latin America, in which the share of men in formal sector employment (as a share of all male workers) exceeds that for women (Cunningham 2003).34

3.9 The national-level figures on informality hide some gender differences in informality that exist in urban areas, where women have a slightly higher likelihood of being informal than men (Bernal 2007). In rural areas, women and men are equally likely to be informal.

33 Over-representation of women in the unpaid sector is seen in a number of countries in Latin America, where they commonly work in a spouse’s or other family member’s business and get paid “in-kind”. This phenomenon is largely limited to married women, as unmarried women (particularly those without children) are rarely employed as unpaid workers. See Cunningham (2001) for Mexico; Bosch and Maloney (2007) for Brazil, Argentina, and Mexico, and Perry et al (2007) for the Latin America and Caribbean region as a whole.
34 Although not shown in Figure 3.2, men are somewhat more concentrated as employers than are women (Bernal 2007).
3.10 Age. In contrast to gender, the data show a clear U-shaped pattern of informal employment over the life cycle. Around 97 percent of workers between the ages of 15 and 18 are informal, and 79 percent of those over the age of 45 are informal, while a lower share of those between the ages of 19 and 44 work in the informal sector. These patterns are observed in both rural and urban areas. Patterns of informality among the young and the old are quite distinct, however, and these differences are worth highlighting.

3.11 Young people often begin their working lives as informal employees or unpaid workers, but many move into formal sector employment as they get older. Figure 3.3 shows the share of each age group in the five largest formal/informal job categories. Nearly everyone less than 15 years of age is either an unpaid worker (45 percent) or an informal employee (40 percent). The remainder are informally self-employed. The high incidence of informality among this group is likely due to both labor legislation that serves to ration youth out of the formal labor market; and to the low skill levels of these young people, which may be more suitable for employment in small, informal sector firms. By age 15-18, there is a significant decline in unpaid labor, an associated increase in informal wage employment, along with small increases in informal self-employment and formal wage employment.

3.12 By the time people reach ages 19 to 24, they experience a significant (more than 20 percent) increase in formal wage employment. This is accompanied by a continued decline in unpaid work, a decline in informal wage employment, and a continued (albeit slow) increase in informal self-employment. These trends continue into prime working age (ages 25 to 44), when formal wage employment peaks and the shares of workers employed in formal wage employment, informal wage employment, and informal self-employment are very similar (around 30 percent).

3.13 Older workers (those above age 44) experience the highest levels of informal self-employment – about 47 percent of workers – as well as declining wage employment. The increased propensity for older workers to be in the informal sector can be seen in data on job transitions (Olivera and Gracia 2007). Rates of transition from formal to informal sector work is highest among older workers, whereas transitions from informal to formal sector work are greatest for prime-aged workers (average age 35).\(^{35}\)

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\(^{35}\) Not surprisingly, the share of people who work as employers is also highest among older workers (Bernal 2007).
3.14 The labor market life-cycle seen in Colombia is a common pattern throughout Latin America, including in Argentina, Brazil, Peru, and Mexico. This has led to a common life-cycle explanation of employment in the region, in which young people first enter the unpaid sector where they work for family-run firms, then move to informal wage employment where they accumulate skills and labor market connections (perhaps compensating for the poor quality of school-based skills acquisition). They then “graduate” to the formal employment sector, where formal job skills, financial capital, and labor market know-how is accumulated, and then take their experience and accumulated resources from the formal sector and start their own firms.

3.15 Race/ethnicity. Indigenous workers, who comprise only a small share of the total labor force, are disproportionately represented in the informal sector. Indigenous people have the highest rates of informal self-employment, and particularly low rates of formal sector wage employment. As shown in Figure 3.4, 45 percent of working indigenous people are self-employed informally, as compared to about 41 percent of Afro-Colombians and 35 percent of white or mestizo Colombians. While each ethnic/racial group has similar levels of informal wage employment, formal wage employment is particularly rare for indigenous workers; only 7 percent of working indigenous people undertake salaried employment in the formal sector, compared to about one-quarter of working Afro-Colombians and white/mestizo Colombians. Moreover, indigenous workers are twice as likely to do unpaid work as the other two groups.

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37 Perry et al (2007) find that most unpaid workers are related to the firm owner and that they generally receive in-kind “remuneration” for their work.
38 It should be noted that not all older workers leave formal sector by choice. A study of the self-employed in Mexico finds that approximately 85 percent of self-employed workers in that country say they prefer being self-employed to being a salaried worker. Nonetheless, the other 15 percent who say that this type of employment is their only option – having been fired from a wage job – are concentrated among older workers (Cunningham and Maloney, 2001). For a more detailed discussion of whether workers are in informal self-employment as a function of “exit” or exclusion from the formal sector, see the section “Why are Workers Informal?” below.
3.16 Education. The likelihood of a worker being informal declines substantially with education. Indeed, the data suggest that likelihood of being informal is much more closely associated with education than with the innate characteristics of gender, age, or race/ethnicity. Nearly all workers with incomplete secondary schooling or less are informal. This compares to 74 percent of those with completed secondary and 42 percent of those with complete college educations. Note that given the high levels of informality in Colombia, a substantial proportion of those with relatively high levels of education still work in the informal sector. Analysis of transition rates in and out of the informal sector also suggests that those with the highest levels of education have higher rates of transition from informal to formal jobs than do their less educated counterparts (Olivera and Gracia 2007).

3.17 In terms of the composition of employment across job categories, the share of workers that are informally self-employed falls with successive levels of education, while the share employed as formal salaried workers increases sharply among those who have completed secondary or higher levels of education (Figure 3.5). More than half of those without any education are engaged in informal self-employment, with the likelihood of being informally self-employed declining at each higher level of education, until fewer than 20 percent of college graduates are employed in this type of job. At the same time, while the likelihood of engaging in formal wage employment is very low for most levels of education, the share rises to 25 percent for secondary school graduates and to more than 50 percent for college-educated workers. Figure 3.5 shows the general downward trend in informal wage employment

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39 The evidence suggests that a higher proportion of those who are well educated are in the informal sector by choice (i.e., for reasons of “exit”) than those who are poorly educated. For a more detailed discussion on this issue, see the section “Why are Workers Informal?” below.

40 It is important to note that nature of informal self-employment also likely differs in important ways by education level, where the least educated generally hold more precarious, low-productivity jobs and are excluded from the formal sector (CIDER 2007), while the most educated are more likely consultants or professionals who own their own firms, but who choose not to pay into the pensions and health systems for themselves, either due to the existence of private coping mechanisms (e.g., private health insurance) or to low personal assessments of the value of public social security. See Chapter 4 for a further discussion of this issue.
by education level. This trend becomes particularly strong at the point where formal wage employment increases; i.e., among secondary school and college graduates.\footnote{The spikes in informal wage employment among those with incomplete primary and incomplete secondary education also suggests that there may be important signaling effects associated with having graduated any given level of education.}

3.18 The impact of education on informality appears to differ somewhat between urban and rural areas. While the likelihood of holding an informal sector job decreases with each level of education in urban areas, only college seems to really matter for sector of employment in rural areas. When the sample is disaggregated by rural and urban residence, one can see that rural workers with primary or secondary school are only 1 percent less likely than those with no education to work in the informal sector. Once rural workers have a college education, however, they are 40 percent less likely to hold an informal job than those with no education.

3.19 Income level. Informality levels also decline with income. Figure 3.6 shows the share of each income quintile that works in each of the major job categories. Those in poorest quintile work primarily as informal self-employed or informal salaried workers, with roughly 85 percent of the poorest 20 percent working in those two categories. Only around 3 percent of workers in the lowest quintile work in the formal sector, as employees. In contrast, the largest share of those in the wealthiest quintile work as formal sector employees – around 35 percent, while less than 50 percent of those in the wealthiest quintile work either as informal self-employed or salaried workers (with shares of 29 and 20 percent, respectively). It is worth noting that – similar to the case of education – even though the share of people working informally declines with income, essentially half of the wealthiest workers in Colombia are still informal.
3.20 While a high share of poor workers are informal, the informal jobs are fairly evenly distributed across income quintiles, due to the fact that a smaller share of the poor are employed relative to the non-poor. Figure 3.7 shows, for example, that the share of informal self-employed workers in each quintile is nearly identical. Though employment in the informal salaried sector is somewhat more concentrated among workers in the lowest 2 quintiles, with the poorest 40 percent of workers making up half of informal employees, the distribution is nonetheless surprising even across the income distribution. The same is not true for formal employment, which is much more concentrated among higher-income workers. This concentration is particularly striking in the case of formal self-employed workers (although this is a very small group in terms of its overall share in the working population).

What Are the Effects of Each Factor, Holding Other Characteristics Constant?

3.21 While the descriptive statistics presented above are informative about how each characteristic is associated with different informal (and formal) job categories, they do not clarify the independent effect of different factors on informality, holding other characteristics constant. Undertaking regression analysis can therefore be instructive. In this context, Bernal (2007) undertakes logit analysis of the probability that a worker is informal, given several sets of factors, including workers’ individual and household
characteristics, their sector of work, and the size of the firms they work in. The logit examines the probability of being informal among all workers, and does not estimate separately the probability of being an informal self-employed and informal salaried worker.

3.22 The regression analysis is largely consistent with the descriptive statistics discussed above – although it does provide some nuances and clarifications in some areas. For example, the logit indicates that once other factors are controlled for, women are 2 percentage points more likely to be informal than men. In addition, once other factors are controlled for, the age-informality profiles change slightly, with the U-shape giving way to a more linear, negative relationship between informality and age. Specifically, while young workers are still the most likely to be informal, the regression indicates that workers between the ages of 25 and 44 years of age are 2.3 percentage points more likely to be informal than those older than 45. This is different from what was found with a purely descriptive approach, and is partly due to the fact that education levels are, on average, higher among younger than older workers. Once education is controlled for, a more direct inverse relationship between age and informality is detected (Bernal 2007).

3.23 The logit analysis reconfirms the importance of education in the context of formal versus informal employment. As discussed above, more educated workers are significantly less likely to be informal than those with less education, controlling for other factors. Moreover, this effect is stronger the higher the education level of the individual. For example, workers who have completed primary education are 11.5 percentage points less likely to be informal than those with no education, while workers with college education are 55.5 percentage points less likely to be informal relative to those with no education.

3.24 Income is also found to have an independent negative association with labor informality after controlling for other factors, with workers in the lowest income quintile 11.2 percentage points more likely to be informal than those in the other quintiles. While Bernal (2007) does not estimate separate equations for self-employed and salaried employees, the author does find that independent workers (e.g., self-employed workers and employers) are nearly 33 percentage points more likely to be informal workers than employers, holding other factors constant.

3.25 In addition to examining workers’ personal characteristics, Bernal (2007) analyzes the role of firm characteristics on the probability of a worker being informal – specifically the size of the firm and the economic sector in which it is located. The estimates show that the likelihood of being an informal worker decreases significantly with the size of the firm. Specifically, individuals that work for firms with between 2 and 5 workers are 4 percentage points less likely to be informal than those who work on their own, while individuals who work in firms with more than 30 workers are 41 percentage points less likely to be informal than people working on their own. With respect to the economic sectors, the logit results indicate that workers in the agriculture and construction sectors are approximately 5 percentage points more likely to be informal than individuals working in the other sectors.

**Why are Workers Informal?**

3.26 The extent to which informal labor activity reflects exclusion or exit is a function of a number of factors related to the functioning of the labor market, the effects of labor market policies, and workers’ preferences for independent versus salaried work, among other things. As elsewhere in the region, the evidence from Colombia shows that informality is a function of both exclusion and exit. For example, there is evidence of “segmentation” in the Colombian labor market, which may represent an important cause of informality via the route of exclusion. At the same time, there is evidence that some workers – particularly self-employed workers – seem to prefer independent activity, even if it means forgoing formal sector benefit packages. Those workers would arrive at informality via the route of exit.
3.27 A recent World Bank study (2005) found significant evidence of labor market segmentation in Colombia between 1994 and 2004, which created barriers to entry into the formal sector for some workers who would have preferred formal employment. This section presents the theory and evidence, and updates the earlier analysis, examining the extent to which segmentation and related barriers to formal employment remain salient features of the Colombian labor market.

3.28 Fiess, Fugazza and Maloney (2002) have shown that the evolution of relative sector sizes (relative between salaried employment and self-employment) and relative wages can give important clues about the nature of the rigidities affecting the labor market and the way it responds to those rigidities. In particular, unless there are nominal rigidities affecting the labor market (e.g., high minimum wages or high and inflexible non-wage costs), both data series should move in the same direction over time. In the absence of labor market rigidities, the existence of a self-employment sector could be viewed as consisting largely of small entrepreneurs who choose that occupation as a rational choice, possibly because of misalignment of social security benefits and contributions, high costs of registration (i.e., of being formal), or for personal reasons (e.g., the desire to be one’s own boss, not having to comply to schedules, etc.). In any case, the important point is that rational individuals perceive self-employment as more satisfying than salaried employment. Also, it points to the fact that productivity growth is low, making the opportunity cost of formality small.

3.29 When the data series move in opposite directions, Fiess, Fugazza and Maloney (2002) show that some nominal rigidity is “binding” and affects the labor market by rationing out some workers from salaried employment, even though they would prefer salaried employment, if given the choice. In the presence of rigidities, the more traditional hypothesis of segmentation can be thought to be in place, and self-employment would be seen (at least part of it) as an undesirable outcome. This distinction is important because, among other reasons, the policy implications for the design of social security and insurance systems may vary substantially, depending on whether workers’ location in the labor market is the result of their preferences or labor market conditions. This distinction also sheds light on the appropriateness of several important labor market-related regulations, notably non-wage costs and minimum wages.

3.30 Figure 3.8 plots relative sector sizes and relative wages in urban Colombia for the period 1984-2006, using four quarter moving averages. The data show that the labor market has experienced significant levels of segmentation since about 1994. After 1994, the data series move in opposite directions, indicating that some factor or factors began to have important impacts on the labor market (i.e., some rigidity was introduced that implied more segmentation in the labor market). This was precisely when the reform to the social security system – Law 100 of 1993, which substantially raised social security contributions – went into effect. Prior to 1994, the trends are not very clear, except perhaps between 1991 and 1994. During that (expansionary) period, both series appear to move together, suggesting some degree of integration (or at least no evidence of segmentation). Before 1991, there seems to be weak movement in opposite directions, but too weak to be able to draw strong conclusions one way or another.

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42 See World Bank 2005 for a detailed description of the content of the reforms.
3.31 More detailed analysis shows that segmentation appears to be important in labor market outcomes for all except the most educated workers. Disaggregating the analysis according to workers’ education levels (primary, secondary incomplete, secondary, tertiary, and college level), one can see that all but the most highly skilled workers in Colombia appear to be affected by labor market segmentation (Figure 3.9). Moreover, visual inspection of the data suggests that segmentation is strongest among the workers with the lowest education and skill levels. Indeed, lower-skilled workers appear to have been rationed out of salaried employment to a greater proportion than other groups (World Bank 2005). This is consistent with the relatively high participation of lower education workers in the informal sector. It is also consistent with what workers reported in the 2006 ECH about why they work in the informal sector (see below).
Workers’ Motivations for Different Types of Work: Evidence of Both Exclusion and Exit

3.32 The ECH collected a rich set of data on people’s motivations for being either employees (salaried) or independent (self-employed) workers. As with the evidence on labor market segmentation in Colombia, information on these motivations can help clarify the extent to which labor informality reflects exit or exclusion.

3.33 Figure 3.10 shows workers’ self-reported reasons for being an employee rather than self-employed. The single most important reason that informal employees gave for being an employee was that this was the only job they could get. Just over 45 percent of all informal employees gave this reason, which is consistent with exclusion (say, as a result of labor market segmentation). In contrast, only 18 percent of formal workers gave this reason. At the same time, between 35-38 percent of both formal and informal employees said they were employees because they lack the resources to work independently. While it is hard to link this response to exclusion (or exit) per se, it does suggest, perhaps contrary to conventional wisdom, that as many as one-third of employees (whether formal or informal) would actually prefer to
work independently if they had sufficient capital to do so. Finally, just over 21 percent of formal employees indicate that their main reason for being an employee is the availability of social security benefits, highlighting some degree of worker demand for such benefits. Not surprisingly, very few informal employees cite this reason.

Figure 3.10: Self-reported Reasons for Being an Employee Rather than Self-employed (percent)

Source: Adapted from Bernal (2007).

3.34 Figure 3.11 shows the reasons independent workers give for being self-employed rather than employees. Around 55 percent of informal self-employed workers, as well as 47 percent of formal self-employed workers, said it was the only job they could find. These responses of both formal and informal self-employed workers may indicate exclusion from salaried work in general, again perhaps due to labor market segmentation. Another 10 percent of formal self-employed workers and 5 percent of informal self-employed workers indicate that the main reason for their being self-employed is that they were fired and have not been able to find another job.\(^{43}\) This, too, can be interpreted as a form of exclusion from formal employment (whether self-employed workers are formal or informal), and it is possible that labor market segmentation contributed to this phenomenon.

3.35 A significant proportion of workers’ responses point more strongly toward exit than exclusion. Approximately 10 percent of informal self-employed workers and 20 percent of formal self-employed workers say they can make more money being independent. In addition, 14 percent of both informal and formal self-employed workers prefer independence because of the more flexible working hours\(^{44}\); roughly 4 and 8 percent, respectively, prefer it because they see better prospects in this form of employment; 5 and 7 percent, respectively, would like to have their own firm; and 9 and 7 percent say they prefer not having a boss. Together, these reasons (plus a few others, such as “more stability and better future”) can be interpreted as a preference for their current work – or exit.

\(^{43}\) Percentages cannot be meaningfully summed together, as respondents could select up to two responses to this question.

\(^{44}\) The issue of flexibility is considered to be more important by female than male workers. This appears to reflect, at least in part, women’s need to balance their household and labor market roles.
3.36 A few responses by independent workers – e.g., that they are “used to” working independently, that it is a “family tradition,” or that it is a function of their age – do not by themselves lead to strong inferences within the exit and exclusion framework. It is interesting to note, however, that older workers more commonly cite “age” as a reason for self-employment than younger workers. This is consistent with the lifecycle patterns of self-employment described earlier. Moreover, a higher share of older workers (perhaps those with more experience, business connections, and assets) appear to be independent as a matter of preference. Self-employed workers age 45 and over are almost equally as likely to report that they work independently due to their age as they are to report that they are independent because it was the only job they could find.

3.37 Perhaps not surprisingly, workers with higher levels of education and higher income are more likely to report reasons associated with exit compared with less educated, poorer workers. For example, while 60 percent of informal self-employed workers with no education indicate that they could not find another job, only 41 percent of informal self-employed workers with college education do so. Similarly, the likelihood of self-employed informal workers reporting that this is the only job they could find decreases consistently with income. While 63 percent of the poorest workers gave this reason, only 38 percent of the richest workers did. Also, wealthy self-employed workers are more likely than poor self-employed workers to report that they are independent because it means higher pay, because they prefer to own their business, and/or because they prefer not having a boss.

3.38 The notion that a significant share of informal self-employed workers are informal as a matter of choice – as a result of exit – is reinforced by workers’ responses to questions in the 2006 ECH survey regarding their preference for independent versus salaried work as employees. The questionnaire asks whether independent workers would accept jobs as employees – with benefits – either at a lower wage or, if not at a lower wage, then at the same wage as their current jobs. Workers’ responses to these questions are summarized in Table 3.2. It is important to note that the survey questions were sequenced very specifically. First, independent workers were asked if they would accept work as salaried employees with benefits, but at a lower wage than they currently received (i.e., if they had a “willingness to pay” for salaried employment with benefits). Those independent workers who answered “no” to this question were then asked if they would accept a job as an employee (salaried employment) with benefits if they were offered same wage as they received in their current job.
Table 3.2: Preferences for Independent Work

<table>
<thead>
<tr>
<th>Preference</th>
<th>Informal self-employed</th>
<th>Formal self-employed</th>
<th>All Independent Workers (including employers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would accept a job as employee with benefits for lower wage</td>
<td>27.1</td>
<td>28.7</td>
<td>26.0</td>
</tr>
<tr>
<td>Would accept a job as employee with benefits for same wage</td>
<td>39.1</td>
<td>41.4</td>
<td>37.1</td>
</tr>
</tbody>
</table>


3.39 The table shows a significant demand for benefits among both formal and informal independent workers. Just over 27 percent of informal self-employed workers would accept a job as employees with benefits, even if the job paid a lower wage. In addition, just over 39 percent of informal self-employed workers who said they would not switch to salaried employment if it meant lower wages, said, they would accept salaried employment with benefits if it offered the same wage as his/her current job. Given the ECH sampling strategy, this latter group represents an additional 28 percent of all informal self-employed workers, meaning that roughly 56 percent of all informal self-employed workers would accept a job as an employee with benefits for either the same or a lower wage. This proportion is slightly higher among formal self-employed workers, but somewhat lower if all independent workers, including employers, are taken into account.

3.40 While the figures suggest a significant demand for benefits, they also imply a significant degree of preference among workers for independent – even informal – work. The figures presented in Table 3.2 imply that roughly 44 percent of informal self-employed workers (100 minus 56 percent) would not accept a job as an employee even if, in addition to their current earnings, they were to be offered benefits. This figure is generally consistent with the figures discussed above in reference to why independent workers do not work as employees (Figure 3.11), and reinforces the notion that a significant proportion of informal self-employed workers have a preference for that type of work. These figures do not vary dramatically across categories of workers. Around 43 percent of formal self-employed workers indicate a preference for self-employed work over salaried work with benefits, while roughly 47 percent of all independent workers express a preference for independent work, if employers are included in the analysis.

3.41 In sum, the evidence indicates that workers are informal for reasons of both exclusion and exit. Segmentation in the Colombian labor market serves to ration many workers out of salaried jobs in the formal sector that they would otherwise like to have. Just over 45 percent of informal employees and roughly 55 percent of informal self-employed workers report being in their current jobs because it was the only job they could get. At the same time, the evidence suggests that a significant proportion of workers, particularly the self-employed, are in their current jobs for reasons associated with “exit” into informality, including prospects for making more money, flexible working hours, or because they want to run their own firm and/or do not like having a boss.

What Is Known About The Welfare of Informal and Formal Workers?

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45 For a more detailed discussion of worker demand for social protection benefits, see Chapter 4.
3.42 The 2006 ECH survey collected several measures that provide insight into the relative welfare of formal and informal workers, including data on earnings, job satisfaction, and workers’ desire to change jobs. These indicators are examined below.

3.43 Descriptive data on workers’ monthly labor earnings indicate that informal sector workers tend to have lower earnings than formal sector workers (Figure 3.12), even without taking into account the value of the non-wage benefits formal sector workers receive. Roughly two-thirds of all informal self-employed and salaried workers earn less than one minimum wage per month, compared with only about 15 percent of formal self-employed and 4.6 percent of formal salaried workers. In contrast, only 3.8 percent of informal salaried workers and 10.8 percent of informal self-employed workers earn more than 5 minimum wages per month, compared to 7.8 and 18.4 percent of formal salaried and self-employed workers, respectively.  

Figure 3.12: Distribution of Monthly Earnings, by Sector and Job Type  
(in ranges measured against the statutory minimum wage, MW)

Source: Adapted from Bernal (2007).

3.44 While comparisons of raw earnings data are interesting, they do not permit one to make welfare comparisons, because they do not capture systematic differences between informal and formal workers, for example, with respect to education levels. As noted above, informal workers have lower levels of education, on average, than formal workers (even controlling for other things). In this context, Nuñez (2002) examines wage differences between formal and informal workers by education level. He finds that, on average, informal workers earn less than formal workers, even controlling for education. He also finds that differences in earnings are much larger for workers with lower levels of education (e.g., 60 percent among workers with incomplete primary education) than for workers with secondary or university degrees (formal workers earn only around 8 percent more than informal workers, on average).

3.45 Such earnings comparisons get closer to capturing welfare differentials, but are also problematic. First, such averages may not capture well the heterogeneity among informal self-employed workers (i.e., the fact that a significant sub-group are among the highest earners). Second, there may be factors that are not easily observed in data that cause some workers to prefer to be informal despite lower earnings. For

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46 Interestingly, because informal workers make up a relatively large share of the labor force, they make up over 90 percent of workers earning less than or equal to 1 minimum wage per month. At the same time, because of their relatively high share in the labor force, informal self-employed workers also make up roughly 46 percent of all workers who more than 5 minimum wages per month (Bernal 2007).
this reason, it is important to look beyond the earnings data to other measures of job well-being, such as workers’ assessment of their satisfaction on the job.

3.46 Job satisfaction can be measured along various dimensions, several of which are explored in the 2006 ECH. Figure 3.13 shows workers’ overall assessment of job satisfaction by sector and job type. One clear message from the data is that Colombian workers experience high levels of job satisfaction, regardless of where they work. Employers (whether formal or informal) and formal sector employees experience the highest levels of job satisfaction. More than 90 percent of employers and formal employees report being either “very satisfied” or “satisfied” with their jobs. Formal self-employed workers also express very high levels of job satisfaction; roughly 80 percent report being either “very satisfied” or “satisfied.” In Colombia, even informal self-employed workers, informal employees, and unpaid workers express high levels of job satisfaction. Roughly three-quarters of all workers in these three categories report being either “highly satisfied” or “satisfied” with their jobs. Thus, while a relatively high proportion of employers and formal sector workers reports being satisfied with their jobs, relatively few workers of any type report being unsatisfied.

![Figure 3.13: Degree of Satisfaction with One’s Job, by Sector and Job Type](image)

Source: Adapted from Bernal, 2007.

3.47 New analysis of informality and welfare in Colombia (Sosa-Escudero 2007) examines worker satisfaction econometrically to help isolate the contribution of labor status – formality vs. informality, salaried employment vs. self-employment – to job satisfaction, controlling for income, education level, and other individual and household characteristics. The paper divides survey respondents into those who are satisfied (or very satisfied) and those who are not satisfied. The author then uses a logit model to estimate the statistical correlates of job satisfaction. Among the key findings is that the probability of being satisfied on the job increases with age, income level, and the number of hours worked, controlling for other factors. Interestingly, education is not found to have an independent effect of job satisfaction, once income level is controlled for. The author argues that it is, therefore, the increased income associated with education, and not education per se, that leads to a positive association between education and job satisfaction observed in the descriptive data.

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47 Over 20 percent of formal employers and 10 percent of informal employers and formal employees, respectively, report being “very satisfied” with their jobs.
In terms of labor status, the logit analysis indicates that formal salaried workers experience a higher probability of job satisfaction relative to formal self-employed, informal salaried, and informal self-employed, controlling for other variables. Thus, while all categories of Colombian workers report relatively high job satisfaction, formal salaried workers experience a statistically significantly higher probability of being satisfied (via non-pecuniary benefits), once income levels and other personal characteristics are taken into account. It is interesting to note, therefore, that it is only the combination of formality and salaried status and not formality alone that results in higher job satisfaction levels.

Sosa-Escudero (2007) also analyzes several sub-dimensions of job satisfaction in Colombia, including satisfaction with the number of hours worked, income levels, social benefits, application of knowledge on the job, and the working day. The observed patterns are quite similar to those associated with overall job satisfaction. In nearly all cases, only formal salaried workers experience higher levels of satisfaction once income and other variables are controlled for. The one notable difference comes to light in the logit analysis of satisfaction with benefits. Here, formality as such does make a difference, as both formal salaried and formal self-employed workers experience higher levels of satisfaction, after controlling for other factors, including income.

To provide a more concrete, quantitative sense of the different levels of job satisfaction between formal salaried and informal salaried workers, Sosa-Escudero (2007) estimates “income-compensating differentials” between the two groups. The income-compensating differential is defined here as the proportion of income that would have to be added to an informal salaried worker’s base income so that he or she is as satisfied as a formal salaried worker with the same level of income. The analysis suggests that, overall, compensating differentials are rather small – roughly half a percent of income when comparing “satisfied” formal employees with “satisfied” informal employees, and just over one percent when comparing “satisfied” formal employees with “not satisfied” informal employees. The biggest exception to small compensating differentials is seen with respect to worker satisfaction with benefits. In the case of benefits, one would have to provide compensation at the level of 7.3 percent of income of a “satisfied” informal employee and at the level of 17 percent of the base income of a “not satisfied” informal employee for them to achieve the same level of satisfaction as a “satisfied” formal sector employee with the same income level.

While most workers report being satisfied with their jobs, many workers, especially in the informal sector, do express a desire to change jobs. For example, while 75 percent of the informally self-employed are satisfied with their jobs, 45 percent would like to change jobs (Figure 3.14). Within job type, those who are informal are more likely to want to change their job than are their formal counterparts. Employers (formal more so than informal) are the least eager to change jobs, while informal employees and self-employed are the most eager.

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48 The data do not permit us to identify whether the worker who wants to change his or her job wants a formal or informal job.
Among those who want to change their jobs, the most cited reason given – by both formal and informal workers – is to earn higher pay. This can be seen in Table 3.3; more than 90 percent of workers in all but one category cite the desire for higher income as the reason for wanting to change jobs. Informal employees and self-employed are more likely than the other groups to cite this reason (97 percent), but even 87 percent of formal employers – a group with very high job satisfaction – express this desire. The consistency in citing this reason across sector and job categories is interesting given that it is only weakly (negatively) correlated with the sub-groups’ actual earnings. Other reasons for wanting to change jobs include workers feeling under-utilized (especially true among formal sector workers in each job type), that the job is too demanding (especially among informal employer or formal employees), and that the work is temporary (especially among informal employees and the self-employed, both formal and informal). The latter concern about jobs being temporary points to people’s concern for job security, a concern that was also voiced in focus group interviews with low-income formal and informal workers in Bogotá (CIDER 2007).

Finally, most workers feel that their jobs are compatible with family life, with informal sector workers being slightly more likely to have this perception. Eighty-seven percent of all workers say that their jobs are “compatible” or “very compatible” with family life (Bernal 2007). Unpaid workers are the most satisfied, with 94 percent finding a balance between work and family life. Informal self-employed are about 8 percentage points more likely to be satisfied with the balance than are formal self-employed, although 81 percent of the formal are satisfied.

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49 A general question asked of all workers (not just those who want to change their jobs) relates to their perceptions of job stability. Formal employers and employees consider their jobs most stable, with over 80 percent in each of these groups ranking their job as “stable” or “very stable”. In contrast, roughly 46 percent of informal employees and 51 percent of informal self-employed workers consider their jobs to be “unstable” or “very unstable”. Formal self-employed workers occupy an intermediate position; they consider their jobs more stable than informal employees and informal self-employed workers, but less so than formal employees or formal employers (Bernal 2007).
Table 3.3: Reason for Stating a Desire to Change Jobs, by Sector-Job Type
(up to three responses given per respondent)

<table>
<thead>
<tr>
<th>Segment</th>
<th>Under-utilized</th>
<th>Increase income</th>
<th>Work too many hours</th>
<th>Job is temporary</th>
<th>Problems at work</th>
<th>Dislike current job</th>
<th>Job too demanding</th>
<th>Environment issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>51.3</td>
<td>97</td>
<td>28.7</td>
<td>39.5</td>
<td>6.5</td>
<td>22.3</td>
<td>39.2</td>
<td>17</td>
</tr>
<tr>
<td>Formal Self-employed</td>
<td>64</td>
<td>91.9</td>
<td>29.3</td>
<td>44.7</td>
<td>5.6</td>
<td>16.8</td>
<td>39.2</td>
<td>14</td>
</tr>
<tr>
<td>Informal Self-employed</td>
<td>46.3</td>
<td>97.8</td>
<td>24.7</td>
<td>39.6</td>
<td>6.4</td>
<td>22.4</td>
<td>38.9</td>
<td>17.6</td>
</tr>
<tr>
<td>Formal Employee</td>
<td>62.2</td>
<td>94.3</td>
<td>36.1</td>
<td>24.6</td>
<td>7.4</td>
<td>19.3</td>
<td>43.9</td>
<td>21.6</td>
</tr>
<tr>
<td>Informal Employee</td>
<td>51.3</td>
<td>97</td>
<td>31.3</td>
<td>46.6</td>
<td>6.4</td>
<td>23.8</td>
<td>38.7</td>
<td>15.4</td>
</tr>
<tr>
<td>Formal Employer</td>
<td>71.6</td>
<td>97</td>
<td>40.8</td>
<td>8.2</td>
<td>21.4</td>
<td>25.9</td>
<td>38.9</td>
<td>1.9</td>
</tr>
<tr>
<td>Informal Employer</td>
<td>44.6</td>
<td>94.2</td>
<td>32.5</td>
<td>22.6</td>
<td>8.5</td>
<td>15.6</td>
<td>49.2</td>
<td>22.6</td>
</tr>
<tr>
<td>Unpaid</td>
<td>61.2</td>
<td>94.4</td>
<td>19.7</td>
<td>33.1</td>
<td>3.7</td>
<td>24.2</td>
<td>27.6</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Source: Bernal (2007).

3.54 In sum, the evidence suggests that formal sector workers and, in particular, formal employees, tend to have higher levels of welfare than do informal workers. Direct comparisons of earnings suggest that those in the formal sector tend to have higher earnings than those in the informal sector, even accounting for differences in education. Employers and Formal employees report the highest levels of job satisfaction, controlling for other factors. Formal workers also, in general, report less desire to change jobs than informal workers, whether due to the desire for higher incomes, more permanent work arrangements, or greater job stability. While the data suggest that informal workers tend to be clustered among the low-end earners, there are important exceptions; a significant proportion of Colombia’s high-end earners come from among the informal self-employed. And, as noted in a previous section, roughly half of Colombia’s self-employed workers report that they still prefer to be self-employed even if they were offered the opportunity for salaried employment with benefits.

Mobility: Worker Transitions between Formal and Informal Sectors and across Jobs

3.55 Even though there is considerable evidence of labor market segmentation in Colombia, there is not perfect segmentation. New analysis of worker transitions between sectors suggests significant movement of Colombian workers between the formal and informal sectors over their working lives. The discussion in the section above provides a static picture of the formal and informal sectors at the time of the ECH survey (August through December 2006), but dynamic analysis provides a more nuanced picture. Indeed, new data from the *Gran Encuesta Integrada de Hogares* (GEIH), which asks interviewees to recall their formal and informal jobs over the long term, and from the *Encuesta Social de Fedesarrollo* (ESF), a panel survey that provides information on workers’ movements between the formal and informal sectors over a one-year period, indicate that it is quite common for workers to change sectors.

3.56 Data from the ESF surveys indicate that over a one-year period, roughly 10 percent of formal workers and 25 percent of informal workers changed sector. Table 3.4 presents transition matrices for

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50 This section draws largely on Olivera and Gracia (2007).

51 The ESF survey collects panel data from Bogotá, Bucaramanga, and Cali. The data used in this exercise were collected from the same households in 2005 and, again, in 2006. The definition of informality slightly differs from that used in the rest of this chapter. A worker is considered to be formal if the job pays for health insurance or pensions, rather than requiring that it pays for both. This less restrictive definition was selected because the stricter definition resulted in a very small share of the workforce being categorized formal, whereas with this less restrictive definition, the share classified as formal is more closely aligned with the shares reported in Bernal (2007).
people working in both sectors, as well as for the unemployed and those out of the labor force. These transition matrices, constructed using ESF panel data, show what percentage of workers in a specific sector (or employment state) in 2006 came from which sector in 2005. The shaded cells show movements between the formal and informal sectors. The table shows that 10.3 percent of people who were in the formal sector in 2006 had been in the informal sector in 2005. At the same time, 25.3 percent of those in the informal sector in 2006 had been in the formal sector in 2005. Analysis of flows of workers across sectors indicates that during this period, more formal workers moved to the informal sector than the other way around; for every 100 informal workers that moved to the formal sector between 2005 and 2006, 136 formal workers moved to the informal sector (Olivera and Gracia 2007).

Table 3.4: Worker Transitions among Sectors, 2005 to 2006
(percent, sums to 100 column-wise)

<table>
<thead>
<tr>
<th>Sector in 2005</th>
<th>Sector in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Formal</td>
</tr>
<tr>
<td>Formal</td>
<td>82.2</td>
</tr>
<tr>
<td>Informal</td>
<td>10.3</td>
</tr>
<tr>
<td>Unemployed</td>
<td>1.2</td>
</tr>
<tr>
<td>Out of Labor Force</td>
<td>6.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0</td>
</tr>
</tbody>
</table>


The diagonal shaded cells in Table 3.4 show the percentage of people who were in the same sector in 2006 as in 2005. The data indicate that the majority of people in the sample found themselves in the same sector/labor force category in both years, with some differences across sectors. Between 2005 and 2006, the formal sector showed greater stability than the informal sector (at least in percentage terms), consistent with workers’ perceptions about job stability discussed above. Specifically, 82.2 percent of formal sector workers in 2006 had also worked in the formal sector in 2005. This compares with 64.7 percent of informal sector workers in 2006 who had also been in the informal sector in 2005.

How do short-term worker movements in Colombia compare with those in other Latin American countries? Maloney and Bosch (2007) find that short-term transition rates in Argentina, Mexico, and Brazil are higher than in Colombia, ranging from 30 percent (among employees) in Argentina for a 6-month transition period to 40-50 percent in Mexico and Brazil for a 3- and 1-month transition period, respectively. While there are a number of possible reasons why this might be the case, one key factor may be those forces that contribute to Colombia’s segmented labor market, including the minimum wage and non-wage costs of employment.

GEIH data suggest greater movement between the formal and informal sectors over longer time horizons. Table 3.5 presents data on transitions from workers’ last job (or employment state) to their current job, over a non-defined time horizon. The table, based on the GEIH survey, presents transition matrices for both urban and rural areas. Focusing on urban transitions first, the data show that 23.9

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52 See Chapter 5 for a further discussion of how segmenting forces such as the minimum wage and high non-wage costs contribute to labor informality in Colombia.

53 The statistics presented in Table 3.4 and Table 3.5 are not strictly comparable due to different definitions used in each survey. The Encuesta Social de Fedesarrollo (ESF) asks the same person, at two points in time, whether the person was working and if the job paid for: (i) health, and (ii) pensions. The Gran Encuesta Integrada de Hogares (GEIH) asks a person at a single point in time if the person held a job previous to the current job and, if so, were pensions payment (health payments) deducted from the wage. Each survey has its own strengths and weaknesses for
percent of workers who are currently in the formal sector worked in the informal sector in their last job. Conversely, 20.6 percent of urban workers who are currently informal were formal sector workers in their last job. Thus, roughly about one-fifth to one-quarter of workers in a given sector worked in the other sector in their previous job. It is also worth noting that 35.7 percent of urban informal workers were either unemployed or out of the labor force before acquiring their current job. This pattern may reflect, to some extent, the life-cycle labor force dynamics in which youth enter the labor force through informal employment before moving formal employment. It may also reflect female entry into the labor force via the informal sector. (About 27.3 percent of current formal sector workers in urban areas were previously unemployed or out of the labor force.) Finally, more than half of the currently unemployed used to work in the informal sector, reinforcing concerns about the instability of informal sector jobs. At the same time, 21.8 percent of the current unemployed in urban areas arrived there via a formal sector job, suggesting that even formal sector jobs are not necessarily jobs for life.

Table 3.5: Worker Transitions among Sectors, from Last to Current Job

<table>
<thead>
<tr>
<th>Last Job</th>
<th>Urban</th>
<th></th>
<th></th>
<th>Rural</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Formal</td>
<td>Informal</td>
<td>Unemployed</td>
<td>Formal</td>
<td>Informal</td>
<td>Unemployed</td>
</tr>
<tr>
<td>Formal</td>
<td>48.8</td>
<td>20.6</td>
<td>21.8</td>
<td>36.5</td>
<td>5.7</td>
<td>8.6</td>
</tr>
<tr>
<td>Informal</td>
<td>23.9</td>
<td>43.7</td>
<td>57.6</td>
<td>36.2</td>
<td>46.3</td>
<td>63.9</td>
</tr>
<tr>
<td>Out of LF/Unemployed</td>
<td>27.3</td>
<td>35.7</td>
<td>20.6</td>
<td>27.3</td>
<td>48.0</td>
<td>27.5</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Olivera and Gracia (2007), based on GEIH.

3.60 In contrast to shorter-term transition rates, longer-term rates in Colombia appear to be similar to those in other parts of Latin America. While not strictly comparable due to definitional differences across country studies, the data show that Argentine and Dominican workers also transition frequently between formal and informal sector employment. Argentine transition rates from informal to formal jobs are very similar to the 23.9 percent figure seen in Table 3.5, while comparable rates in the Dominican Republic are slightly lower, at about 16 percent. In terms of current informal sector workers, transition rates are a few percentage points higher in Argentina and a few percentage points lower in the Dominican Republic, relative to the 20.6 percent rate observed in Colombia.\(^{54}\)

3.61 Considerable movement between sectors and employment states is seen in rural as well as urban areas – although the relative weight changes across sectors differs in some cases (Table 3.6). For example, in rural areas 36 percent of those who are currently working in the formal sector had come from a previous job in the informal sector, while only 5 percent of currently informal workers came to that work from a job in the formal sector. This compares to 23.9 and 20.6 percent, respectively, in urban areas. As in urban areas, most of the current unemployed came from jobs in the informal sector – 63.9 percent in rural areas compared to 57.6 percent in urban areas. However, relatively fewer of the current unemployed came from the formal sector. Only 8.6 percent of current unemployed were previously formal sector workers, compared to 21 percent in urban areas.

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\(^{54}\) Perry et al 2007.
While there is considerable movement of workers across formal and informal sectors, it is quite also common for workers change jobs without changing sectors. The GEIH survey enables one to examine transitions between job types as well as sectors (Table 3.6). An important insight that comes from including job types as well as sectors is that while there is considerable movement in both directions across formal and informal sector jobs, there is often more movement within sector and across job types. For example, among those who are informally self-employed, 49.9 percent had previously been informal employees, as compared to only 11 percent who had been formal employees.

<table>
<thead>
<tr>
<th>Initial Sector</th>
<th>Terminal Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Formal Employee</td>
</tr>
<tr>
<td>Formal Employee</td>
<td>42.1</td>
</tr>
<tr>
<td>Informal Employee</td>
<td>13.2</td>
</tr>
<tr>
<td>Formal Self-Employed</td>
<td>9.7</td>
</tr>
<tr>
<td>Informal Self-Employed</td>
<td>0.3</td>
</tr>
<tr>
<td>Formal Employer</td>
<td>0.3</td>
</tr>
<tr>
<td>Informal Employer</td>
<td>0.2</td>
</tr>
<tr>
<td>Unpaid Worker</td>
<td>0.4</td>
</tr>
<tr>
<td>Out of the Labor Force</td>
<td>33.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

Table 3.6: Likelihood of the Last Job Having Been From a Different Sector-Job Type than the Current Sector-Job Type (%)

Source: Olivera and Gracia (2007), based on GEIH.

Similar patterns are seen among those who are informal employers. More than half – 52.8 percent – worked previously as informal employees. At the same time, 24.8 percent of formally self-employed had previously been formal sector employees (only 18 percent had been informal employees) and 26 percent of formal employers had been formally employed (as opposed to 23 percent who had been informally employed). These patterns are quite similar to those observed in other countries in Latin America.

Conclusions

This chapter has focused on informal workers in Colombia, using new data on labor and informality collected as part of the 2006 ECH. The chapter has examined who informal workers are, why they are informal, and what being informal implies for workers’ welfare. It has also examined the extent to which workers move between the formal and informal sectors.

The data show that 74.2 percent of the Colombian workforce is informal, when informal workers are defined those who do not contribute to contributory health insurance and pensions as part of their job. The extent of informality varies across job-types and across different socio-economic groups. All unpaid workers and nearly all self-employed workers and employers are informal at the national level, with informality rates in the latter two cases being 95.6 and 90.3 percent, respectively. Informality among employees is considerably lower – but still high – with an informality rate of 56.6 percent at the national level. Rates of informality are considerably higher in rural than in urban areas. In rural areas, for example, 99.1 percent of self-employed workers and 80.9 percent of employees are informal, compared to 94.4 percent of self-employed workers and 49.9 percent of employees in urban areas. In terms of the

55 Bosch and Maloney 2007.
composition of the informal labor force, nearly half – 48 percent – of informal workers are self-employed and another 40 percent are informal employees (i.e., informal salaried workers). Unpaid (mostly family) workers and employers make up much smaller shares of the informal workforce – about 5 percent each – due to their relatively small shares in the overall labor force.

3.66 Several sets of factors are closely associated with being an informal worker in Colombia. Perhaps the most important factor is education; the likelihood of a worker being informal declines significantly with higher levels of education. Informality is also closely and negatively associated with earnings; the likelihood of being informal declines significantly as earning levels rise. However, informality is not solely a function of low education or income. Rather, the phenomenon is widely distributed. Forty-two percent of college graduates and 49 percent of workers in the wealthiest quintile work in the informal sector in Colombia. In terms of workers’ demographic characteristics, more men than women work in the informal sector – although female workers face a higher probability of being informal. Age is also an important factor, although the effects are different depending on where one is in his/her lifecycle. Young people often start their working lives as unpaid workers or informal employees, but as they gain experienced, many use informal salaried work as a stepping stone to formal employment. Having accumulated skills, labor market connections, and perhaps financial capital, many older workers then move back to the informal sector, but this time as self-employed workers. Race and ethnicity also play a role; both indigenous groups and Afro-Colombians face a relatively high probability of being informal, controlling for other factors.

3.67 In terms of the reasons why workers are informal, the evidence points to both exclusion and exit. Analysis of wage and employment trends suggests that segmentation in the Colombian labor market serves to ration many workers out of the formal sector who would like to have formal salaried employment. This exclusion is reflected in self-reported data – more than 45 percent of informal employees and roughly 55 percent of informal self-employed workers report that they are in their current jobs because it was the only job they could get. At the same time, there is evidence that a significant proportion of workers, particularly the self-employed, are in their jobs as a matter of choice, at least given existing constraints. About 44 percent of all informal self-employed workers indicate, for example, that they would not accept salaried employment with benefits, even if they could get those benefits at no cost in terms of their earnings. Consistent with this, many informal self-employed workers report being in their current jobs for reasons such as higher pay, better job prospects, or greater flexibility, or because they want to run their own firm and/or be their own boss.

3.68 Yet the evidence also suggests that policymakers have well-justified concerns about informal sector workers’ welfare – at least on average. A review of a range of welfare indicators suggests that formal sector workers and, in particular, formal employees, tend to have higher levels of welfare than do informal workers. Direct comparisons of earnings suggest that those in the formal sector tend to have higher earnings than those in the informal sector, even accounting for differences in education. Such comparisons need to be done with care, given important unobserved variables. Nonetheless, the earnings figures are consistent with patterns seen in other potential measures of well-being. While Colombians, overall, report high levels of job satisfaction, formal employees report the highest levels of job satisfaction, controlling for other factors. Formal workers also, in general, report less desire to change jobs than do informal workers, whether due to the desire for higher income, more permanent work arrangements, or greater job stability. And when it comes to the satisfaction with job-related benefits, the evidence suggests that at least some categories of informal workers would be willing to pay for social security (irrespective of their ability to pay56).

56 The issue of informal workers’ ability to pay for social security will be analyzed in Chapter 4.
3.69 It has traditionally been assumed that workers who are informal tend to stay informal, and that worker mobility is extremely limited. Evidence presented in this chapter challenges this characterization. First, evidence on the labor market lifecycle in Colombia suggests that many workers go through phases of informality and formality that change according to the stage of their working lives. They also experience greater short-term movement in and out of the informal sector than previously thought. Evidence on job transitions indicates that nearly one-quarter of urban workers who are currently formal worked in the informal sector in their last job, while about one-fifth of urban workers who are currently informal worked in the formal sector in their last job. Among rural workers, movements were also considerable; more than one-third of rural workers who are currently working in the formal sector worked in the informal sector in their last job, although only 5 percent of currently informal workers came to that work from a job in the formal sector. While the evidence highlights greater movement of workers across sectors than previously thought, it also reveals considerable movement of workers within the informal and formal sectors. Indeed, the data suggest that there is even more movement of workers within sectors and across job types.

3.70 What do these findings mean for public policy? High and persistent levels of labor informality in Colombia, concerns about informal workers’ welfare and lack of protection against risks, along with significant levels of worker movement between the formal and informal sectors calls for a re-thinking of how social protection is provided in Colombia and, in particular, of the traditional link between the formal labor contract and access to risk management instruments. This approach of linking access to social security to formal employment has been the hallmark of social protection in most of Latin America. But the assumption of workers having a “job for life” and making lifelong contributions to – and thus having access to – publicly provided benefits appears at odds with realities on-the-ground in Colombia. Indeed, the evidence suggests that it will be difficult, if not impossible, for many workers – especially those with less education, lower earnings, ethnic minorities, and women – to accumulate enough time contributing to the formal pension to be eligible for the pensions, or to achieve uninterrupted health coverage through the formal contributory health insurance system. In this context, it is worth looking more closely to the links between informality and social policy to better understand the extent to which the structure of Colombia’s social protection system is compatible with the goal of providing coverage to the largest possible number of Colombia’s citizens. This is the subject of the next chapter.
4. Labor Informality and Social Policy

Introduction

4.1 This chapter looks at several elements of social policy that may contribute to labor informality – the minimum wage, non-wage labor costs (*parafiscales*), and the design of social protection programs. It begins by examining new empirical evidence on people’s demand for social protection, including their preferences for different types of saving or contribution mechanisms. The chapter also examines actual coverage of health insurance and pension benefits, and people’s willingness and ability to pay; as well as anecdotal evidence from Colombia and other Latin American countries which suggests that important information failures may affect people’s demand for and ability to access social protection.

4.2 Against this background, the discussion then turns to new and recent evidence on how selected social policies and programs affect the distribution of formal and informal employment, and in what ways. Specifically, the chapter reviews evidence on the impacts of: (a) Colombia’s minimum wage policies; (b) the non-wage costs associated with formal employment; (c) the design of the formal sector (contributory) social security system; and (d) the possible relationship between informal workers’ access to non-contributory programs (e.g., the *Regimen Subsidiado* in health) and their preference for informal sector employment. In the case of the latter issue, recent studies have conjectured that competing contributory and non-contributory programs in health, pensions, and other elements of formal social security in Latin America may create incentives for workers to choose the informal sector (Perry et al 2007, Levy 2007).

Workers’ Demand for and Access to Social Protection

4.3 A number of recent studies on shocks and risk, in Latin America and elsewhere, show that individuals and households engage in a number of private risk management and income smoothing strategies. In principle, such strategies could include the purchase of private health, disability, and other types of insurance. In practice, however, private insurance markets remain relatively thin in the region, and access to private insurance instruments is generally confined to the wealthier segments of society. Other private risk management strategies include income diversification, adjustments of household labor supply, drawing down of household savings, sale of assets, and adjustments in household spending and/or consumption patterns. Such strategies are used both before the fact, to reduce the likelihood or mitigate the likely impact of a shock, and after the fact, to help cope with the effects of an adverse event. While these strategies are important, empirical evidence consistently shows that households are not able to fully insure themselves against risk; and that poor households are generally less able to protect themselves against risks than non-poor households. In this context, public social protection policies have an important economic and social role to play.

4.4 To understand more clearly the extent of demand for social protection, given other risk management and income smoothing strategies, this section draws heavily on new quantitative evidence for Colombia presented in Bernal (2007), as well as new qualitative evidence (focus group and key informant interviews) undertaken by CIDER (2007) at the University of Los Andes in Bogotá. A couple of key messages emerge from this evidence.

- First, Colombian workers do indeed demand social protection – especially in health – but many feel they cannot afford to contribute to the formal system. Moreover, many workers – particularly poor, informal workers – feel they face important trade-offs across several dimensions. With respect to pensions, poor workers in particular see an acute trade-off between the idea of saving for retirement and the immediate need for those same resources, for either current investment or consumption.
• Second, many poor workers also see a trade-off between income security – via low-paying but steady informal salaried employment – and higher paying but more volatile self-employed work that.

Worker’s Demand for Social Protection

4.5 There is no single summary measure in the 2006 ECH survey that captures worker demand for social protection or their willingness to pay. Nonetheless, their demand for social protection can be gauged from the data. As shown in the previous chapter (Figure 3.10), 21.5 percent of formal sector employees report that their main motivation for being employees as opposed to self-employed is the availability of social security benefits. Because survey respondents were only asked about their main motivation, this figure can be taken as a strict lower bound estimate of demand for social protection, since many who had a different main motivation might also consider the availability of social security benefits to be an important motivation. In addition, as some benefits cover the families of the formal worker (e.g. health insurance regime covering a worker’s dependents), it is likely that an even greater share of the population values social security benefits.

4.6 The relative importance that employees place on social security benefits differs slightly by gender, with 23.7 percent of female and 19.9 percent of male formal sector employees saying that such benefits were their main motivation for being formal. The relative importance of these benefits as a motivation for formal employment also increases with income and education. While only 18.6 percent of workers in the poorest quintile cite benefits as the main reason for choosing to be a formal employee, roughly one-quarter of those in the wealthiest quintile cite benefits as their main reason (Figure 4.1, panel A). Similarly, while only 16.8 percent of formal employees with primary education cite the availability of benefits as their main reason, 26.3 percent of employees with a college education report this as the main reason (Figure 4.1, panel B).

Figure 4.1: Share of Formal Employees who Report that the Availability of Social Security Benefits is Their Main Motivation for Being an Employee

Panel A: By Income Quintile

Panel B: By Education Level

Source: Bernal (2007).

4.7 Independent workers’ demand for social protection can also be seen via an expressed willingness on the part of uncovered self-employed workers to forego some of their current income to obtain social protection benefits via salaried employment. In this context, as mentioned in the previous chapter, the 2006 ECH asks independent workers if they would accept a job as an employee if they were offered
benefits but a lower wage than in their current occupation. Roughly 27.1 percent of informal self-employed workers – and about 28 percent of “other” independent workers – reported they would accept a lower wage in return for employment with benefits. No clear differences in informal workers’ willingness to pay for benefits are seen by gender or by education level. However, a clear pattern is seen across income quintiles (Figure 4.2), with a higher proportion of poor informal self-employed and other independent workers reporting a willingness to accept lower wages in return for employment with benefits than did non-poor workers in the same categories. As the figure shows, about one-third of informal self-employed workers and nearly half of other independent workers in the poorest quintile would be willing to take a pay cut in return for salaried employment with benefits compared to only 20.6 and 16.9 percent for informal self-employed and other independent workers in the wealthiest quintiles, respectively.

Figure 4.2: Percent of Informal Self-employed and “Other” Independent Workers Who Would Accept a Job as an Employee with Benefits for a Lower Wage

Source: Adapted from Bernal (2007).

4.8 As discussed in Chapter 3, Sosa-Escudero (2007) attempts to quantify workers’ willingness to pay for benefits by estimating income-compensating differentials between formal salaried and informal salaried workers, comparing self-reported “satisfied” formal workers with both “satisfied” and “not-satisfied” informal salaried workers. Income-compensating differentials are defined as the proportion of income that would have to be added to an informal salaried worker’s pay so that he/she is as satisfied as a formal salaried worker with the same level of income. With respect to job-related benefits, Sosa-Escudero (2007) finds that one would have to provide compensation at the level of 7.3 percent of the base income of a “satisfied” informal employee and 17 percent of the base income of a “not-satisfied” informal employee to have them achieve the same level of satisfaction as a “satisfied” formal employee with the same level of income and benefits.

4.9 It is worth noting that among informal self-employed workers who would not accept a salaried job with benefits at a lower wage, 39.1 percent would be willing to take a job with benefits for the same wage. Similarly, 41.4 percent of the formal self-employed workers who would not accept a job with benefits for a lower wage, would accept it for the same wage (see Table 3.2). While this is a weaker measure of demand for social protection (as it does not involve an expressed willingness to pay for benefits), it does indicate that a significant group of independent workers would be prepared to give up that independence in return for access to social security.
4.10 A qualitative study on informality by CIDER (2007) at the University of Los Andes, commissioned for this report, provides additional information on the nature of demand for social protection on the part of low- and middle-income workers in urban labor markets. The study carried out focus groups and in-depth individual interviews with 53 informal self-employed, informal salaried, and formal sector workers in the poorest 3 categories of the national targeting system (SISBEN I, II, and III) in selected neighborhoods of Bogotá in 2007. The study investigated a series of issues related to people’s work histories, employment conditions, motivations for being informal, as well as their knowledge of and demand for social protection services.

4.11 In general, the interviews indicated that poor workers put a relatively high value on social protection in health, but were concerned about costs. Poor informal sector workers particularly value having access to the subsidized health regime, the Regimen Subsidiado. Interestingly, informal workers in SISBEN III expressed both a clear demand for health insurance and a higher sense of vulnerability to health shocks, due to both their lack of eligibility for the Regimen Subsidiado and their lack of participation in the formal sector’s contributory health regime. Informal workers in SISBEN III, particularly female workers, highlighted the importance of having health insurance, and said they would be prepared to pay for it, if it were available.

4.12 In terms of pensions, the messages were more varied. While a number of workers, particularly female workers, said they realize the importance of having old age income security in principle and would be willing to pay for it, many said they had little or no ability to save – because of their low incomes – especially for a benefit that would only be available in the distant future. In terms of savings capacity, some informal workers also expressed concern about the lack of matching employer contributions in formal sector jobs. Equally important, many respondents said that if they did have sufficient income to save, they would prefer to use their income for more immediate needs, such as investing in their own enterprises (to increase their income stream) or their children’s education. Several workers expressed concern about whether their pension contributions would actually be available to them when they stopped working.

4.13 In general, many respondents placed greater value on current as opposed to future benefits and services. Beyond the issue of health insurance, which respondents agreed was a critical present-day concern, interviewees often expressed a desire for greater access to programs with short-term benefits related to better housing, recreation (especially for their children), and training – things that can be taken advantage of now rather than far into the future. Some respondents also said that rather than saving for traditional pensions, they would like to have greater access to flexible, voluntary savings instruments that could be used for a range of needs in the short, medium, or longer term.

4.14 The desire for more flexibility in the design of social protection came up repeatedly in the focus groups and interviews. This included the desire for flexibility in the timing and amount of contributions to social protection programs (or some type of contingency fund) to accommodate the variability and/or seasonality of poor workers’ income streams. Respondents wanted the option to contribute or save (or not save, without penalty), as their economic circumstances permitted. The desire for greater flexibility also came up with respect to the uses and timing of access of benefits. Again, the concern for greater flexibility stemmed from respondents’ recognition – particularly those in the lowest income stratas – that they faced many competing needs, especially in the short term.

4.15 The CIDER study (2007) also revealed some noteworthy differences in respondents’ demand for social protection according to their gender, income/SISBEN-levels, and job type. Overall, women seemed to place a higher value on the various elements of social protection than did men (controlling, notionally, for income/SISBEN level). This seemed to be related to women’s household roles and the responsibility
for their children’s well-being. At the same time, low-income female workers, especially single heads of households, highlighted an important tension between lower paying but steady informal salaried jobs that provide a relatively consistent stream of income, and higher paying self-employed jobs that might increase their ability to pay for social protection, but would provide a more unpredictable income stream. 

**Workers’ Ability to Pay**

4.16 The CIDER (2007) also highlighted workers’ concerns about their ability to pay for social protection benefits. This can be seen as well in the quantitative data collected in the ECH. The problem of ability to pay is most dramatic in the case of pensions, but can be seen clearly in the case of health insurance as well.

4.17 As of the beginning of 2008, total contributions to formal sector health insurance were legislated at 12.5 percent of workers’ salaries, with employees contributing 4 percent and employers contributing 8.5 percent. In the case of pensions, total contributions are legislated at 16 percent of workers’ salaries, with employees paying 4 percent and employers paying 12 percent. Thus, formal workers are required to contribute a total of 8 percent of their salaries toward health and pensions. Self-employed workers can contribute, but contribution levels are different. Self-employed workers are required to contribute both their own and the employer’s share, but in contrast to salaried workers, their contribution levels are calculated on 40 percent of their income.

4.18 **Pensions.** The ECH data indicate that only 28.8 percent of active workers report having pension coverage, defined as actively contributing to a pension scheme. This low overall figure includes formal workers who, by the definition used in this study, are 100 percent covered. Disaggregating pension coverage by formal and informal workers and job category reveals that coverage of most categories of informal workers is close to zero (Figure 4.3). Only 7.6 percent of informal employees report having coverage, while only 1.7 percent of informal self-employed workers report having coverage. For covered employees, employers’ contributions play an important role in covering the cost. But in nearly all other cases – e.g., either formal or informal self-employed workers – the vast majority of pension costs are paid solely by the workers themselves (upwards of 80 percent of contributors, in the case of self-employed workers; see Bernal 2007).

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57 Overall, however, informal salaried workers expressed a greater willingness/ability to pay for health and pensions (controlling, notionally, for income/SISBEN level) because the greater stability of income gave them a greater ability to budget for such payments than independent workers, whose income streams are often highly variable.
4.19 For those in the informal sector who do not make pension contributions, the ECH asks them to report the main reason why. Overall, nearly 70 percent of informal sector workers say the main reason is that they cannot afford it (Table 4.1). For informal self-employed workers and informal employees, nearly 80 percent and 60 percent, respectively, give that reason. As shown in the table, the next two most important reasons are that the “employer does not require it” and that the “employer does not pay the contribution.” Not surprisingly, this response is most relevant for informal employees, 11.5 and 11.7 percent of whom report these two reasons, respectively, as the most important.

58 Lack of the ability to afford pension contributions is among the most commonly reported reasons for not contributing according to several recent surveys on informality in Latin America. In Argentina, over three-quarters of independent workers reported they didn’t contribute because their incomes were too low. Over half the independent workers surveyed in Dominican Republic also reported too low incomes as the main reason for not contributing (Perry et al 2007).
Table 4.1: Main Reasons Why Informal Workers Do Not Contribute to Pensions

(percentage of workers)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Total (All Workers)</th>
<th>Informal Self-Employed</th>
<th>Informal Employee</th>
<th>Unpaid Worker</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot Afford it</td>
<td>69.4</td>
<td>79.4</td>
<td>59.6</td>
<td>70.5</td>
<td>56.4</td>
</tr>
<tr>
<td>Employer does not require it</td>
<td>5.1</td>
<td>1.1</td>
<td>11.5</td>
<td>0.6</td>
<td>6.6</td>
</tr>
<tr>
<td>Employer does not pay contribution</td>
<td>5.0</td>
<td>0.6</td>
<td>11.7</td>
<td>0.2</td>
<td>6.9</td>
</tr>
<tr>
<td>Does not believe he/she will actually receive their pension</td>
<td>3.7</td>
<td>4.7</td>
<td>1.5</td>
<td>2.3</td>
<td>1.6</td>
</tr>
<tr>
<td>He/she is still very young</td>
<td>3.4</td>
<td>2.2</td>
<td>3.6</td>
<td>13.1</td>
<td>11.5</td>
</tr>
<tr>
<td>Most jobs are like this</td>
<td>2.4</td>
<td>2.3</td>
<td>4.9</td>
<td>1.7</td>
<td>1.2</td>
</tr>
<tr>
<td>Saves on his/her own</td>
<td>1.6</td>
<td>1.5</td>
<td>0.6</td>
<td>1.1</td>
<td>2.0</td>
</tr>
<tr>
<td>Children/family will take care of him/her</td>
<td>1.6</td>
<td>1.9</td>
<td>0.4</td>
<td>3.1</td>
<td>0.5</td>
</tr>
<tr>
<td>Prefers higher wage than benefit</td>
<td>1.3</td>
<td>1.4</td>
<td>1.4</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Other</td>
<td>5.5</td>
<td>5.0</td>
<td>4.7</td>
<td>7.1</td>
<td>13.0</td>
</tr>
</tbody>
</table>

Source: Bernal (2007).

4.20 Although self-reported reasons for not contributing are subject to possible bias, deeper analysis of the responses suggests that workers’ claims regarding inability to pay conform reasonably to their economic circumstances. For example, more than 80 percent of all workers in the poorest quintile report they cannot afford to make pension contributions (90 percent of informal self-employed workers), compared to only 50 percent of all informal workers (56 percent of informal self-employed workers) in the wealthiest quintile. Moreover, logistic regressions show that workers in the poorest income quintile are about 20 percent less likely to have pension coverage than workers in the highest quintile, controlling for other factors (Bernal 2007). Workers in the second lowest quintile are 13 percent less likely to have pension coverage than those in the highest quintile, while those in the fourth quintile (second highest) are only 5 percent less likely.

4.21 Data from the ECH on the size of monthly pension contributions also highlights the importance of poorer workers’ inability to pay. Among those making contributions, 15.4 percent of the entire working age population – both formal and informal workers – contributes between 6 and 10 percent of their earned income per month to pensions, while 7.3 percent contributes more than 10 percent of their monthly earned income (Figure 4.4). The remaining 77.3 percent contributes less than 6 percent of their monthly earned income. For workers in the poorest quintile who make pension contributions, 27.2 percent contribute 6 to 10 percent of their monthly earned income, while nearly half – 47.7 percent – pay more than 10 percent of their monthly earned income. These contributions are extremely high in relative terms for poor households. The picture is even more dramatic if one looks at informal self-employed workers in the poorest quintile. Nearly 22 percent of pension contributors in this category spend between 6 and 10 percent of their monthly earned income on pensions, while nearly two-thirds contribute more than 10 percent.
4.22 Low levels of pension coverage – whether due to workers’ inability to afford contributions or to shorter-term investment or consumption priorities – raise important concerns about people’s ability to protect themselves from poverty and ensure a basic level of well-being in old age. This concern is reinforced by ECH data on what workers do to guarantee a living in their old age. The data indicate that nearly two-thirds (63 percent) of all active workers are taking no actions to protect themselves in their old age (Bernal 2007). The proportions are even higher among informal sector workers. Roughly 79.3 and 81.2 percent of informal self-employed and informal salaried workers, respectively, report taking no actions to guarantee a living upon retirement. Only 7.6 percent of all active workers are saving independently for their old age, while 4.3 percent plan to rely on their children when old.

4.23 Health Insurance. The situation in health is somewhat different, for two reasons. First, when a formal worker affiliates with the contributory health regime, his or her immediate family members are also covered, automatically, by a package of benefits. Second, the subsidized health regime, the Regimen Subsidiado, covers a substantial proportion of Colombia’s poor population (SISBEN I or II), if they are not already covered by the contributory regime.

4.24 Between the contributory and the subsidized regimes, just over 80 percent of working age Colombians are covered by some form of health insurance (Figure 4.5). Coverage is relatively high – over 72 percent – in all informal sector job categories, including for unpaid workers. Of those covered, roughly half are covered by the contributory regime, while the remainder are covered by the subsidized regime (or in some cases by special plans, such as the plan designed for the army). However, just over 55 percent of those covered by the contributory regime actually contribute, while close to 45 percent are only beneficiaries; i.e., dependants of workers who make contributions. All-in-all, less than one-third of dependents of contributing formal sector workers are covered by a somewhat more modest package than are the contributing workers themselves.
covered individuals actually make health contributions, while over two-thirds are either part of the subsidized regime or are covered by contributing household members.60

**Figure 4.5: Health Insurance Coverage* among Active Workers in Colombia, 2006**

(Percent of workers)

<table>
<thead>
<tr>
<th>Percent</th>
<th>Total (Working)</th>
<th>Formal Self-employed</th>
<th>Informal Self-employed</th>
<th>Formal Employee</th>
<th>Informal Employee</th>
<th>Formal Employer</th>
<th>Informal Employer</th>
<th>Unpaid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>80.5</td>
<td>74.9</td>
<td>100</td>
<td>73.5</td>
<td>100</td>
<td>77.6</td>
<td>72.6</td>
</tr>
</tbody>
</table>

*Includes coverage both by the contributory and subsidized health regimes.
Source: Bernal (2007).

4.25 As with pensions, the ECH 2006 asks those who do not pay into the contributory health regime the main reasons why they do not. In contrast to pensions, the main reason given by informal workers is that they are already covered, either by a working family member’s policy or through participation in the Regimen Subsidiado. Nearly 54 percent of all workers – and nearly 57 percent of informal self-employed workers – indicate that they do not contribute because they are otherwise covered (Table 4.2), the second reason being the inability to afford health insurance, reported by 27.0 percent of those who do not contribute, 31.7 percent for informal self-employed workers.61 Other reported reasons are that the “employer does not require it” and that the “employer does not pay the contribution.” About 4.1 and 3.7 percent of all workers, respectively, report those reasons. As expected, these two reasons are relatively more important for informal salaried workers, each accounting for about 9 percent of their responses.

4.26 The Government of Colombia has made the universalization of health coverage, through contributory, subsidized or partially subsidized regimes, a policy goal. However, access to the Regimen Subsidiado has been rationed as a result of limited fiscal capacity, and as a result, not all eligible families (categorized as SISBEN I or II) are effectively covered by this regime. This can be seen through the prevalence of uncovered families in the lowest income quintiles, who cite their inability to afford health insurance as reason for not being covered. For example, 31.8 of all workers and 35.9 percent of informal

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60 Given this distribution of health insurance beneficiaries, even though health coverage appears to be high, the contributory system will face serious issues of fiscal sustainability in the long run. This issue is addressed in greater detail in Chapter 6.

61 Note that these figures represent 58 and 73 percent of those not otherwise covered by health insurance – percentages that are not too much lower than those reported by people not covered by pensions (69 and 79 percent, for all and informal self-employed workers, respectively; see Table 4.2). These patterns are also consistent with recent evidence from other Latin American countries (see Perry et al 2007 for evidence from the Dominican Republic).
self-employed workers in the poorest quintile report they cannot afford to make a health insurance contribution, compared to only 17.7 all uncovered workers and 19.9 percent of informal self-employed workers in the wealthiest quintile. Despite the existence of the Regimen Subsidiado, logistic regressions show that workers in the poorest income quintile are significantly less likely to have health coverage than workers in the highest quintile – although the coverage gap is smaller than in the case of pensions (Bernal 2007). Workers in the poorest quintile are about 10 percent less likely to have coverage than are those in the highest quintile, controlling for other factors.

4.27 Concern for the affordability of health insurance by the poor is implicit in the Regimen Subsidiado, but can also be seen clearly in the data on health insurance contributions across the income distribution. Among those of working age who make contributions, 18.6 percent contribute between 6 and 10 percent of their monthly earned income, 10.1 percent contribute more than 10 percent, and the remaining 71.3 percent contribute less than 6 percent. The relative cost to poor contributors is higher. Among workers in the poorest quintile who make contributions, 21.4 percent contribute 6 to 10 percent of their monthly earned income, while 58.3 percent contribute more than 10 percent of their monthly earned income. Poor informal workers – both self-employed and employees – who contribute pay even more as a proportion of their incomes. Approximately 63.5 percent of informal self-employed workers in the bottom quintile contribute more than 10 percent of their monthly earned income, while a full two-thirds of informal employees in the bottom quintile pay more than 10 percent (Figure 4.6).

Table 4.2: Main Reasons Why Informal Workers Do Not Contribute to Health Insurance (percent of workers)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Total (All Workers)</th>
<th>Informal Self-Employed</th>
<th>Informal Employee</th>
<th>Unpaid Worker</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beneficiary / Subsidized Regime</td>
<td>53.7</td>
<td>56.7</td>
<td>48.5</td>
<td>55.9</td>
<td>45.4</td>
</tr>
<tr>
<td>Cannot Afford it</td>
<td>27.0</td>
<td>31.7</td>
<td>22.2</td>
<td>25.3</td>
<td>26.7</td>
</tr>
<tr>
<td>Employer does not require it</td>
<td>4.1</td>
<td>1.1</td>
<td>9.0</td>
<td>0.7</td>
<td>2.5</td>
</tr>
<tr>
<td>Employer does not pay contribution</td>
<td>3.7</td>
<td>0.5</td>
<td>8.8</td>
<td>0.1</td>
<td>4.0</td>
</tr>
<tr>
<td>Pays directly for health expenses</td>
<td>1.4</td>
<td>1.5</td>
<td>1.0</td>
<td>0.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Current situation is temporary</td>
<td>1.2</td>
<td>0.7</td>
<td>2.1</td>
<td>0.3</td>
<td>5.5</td>
</tr>
<tr>
<td>Does not know how to</td>
<td>1.0</td>
<td>1.1</td>
<td>0.7</td>
<td>1.1</td>
<td>1.2</td>
</tr>
<tr>
<td>He/she is unpaid worker</td>
<td>0.8</td>
<td>0.1</td>
<td>0.1</td>
<td>11.5</td>
<td>---</td>
</tr>
<tr>
<td>Health system is inefficient</td>
<td>0.7</td>
<td>0.9</td>
<td>0.5</td>
<td>0.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Prefers higher wage</td>
<td>0.7</td>
<td>0.6</td>
<td>1.0</td>
<td>0.2</td>
<td>4.7</td>
</tr>
<tr>
<td>Has prepaid insurance</td>
<td>0.6</td>
<td>0.6</td>
<td>0.3</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>Bad quality of services</td>
<td>0.4</td>
<td>0.4</td>
<td>0.3</td>
<td>0.3</td>
<td>---</td>
</tr>
<tr>
<td>Other</td>
<td>4.9</td>
<td>4.0</td>
<td>5.4</td>
<td>3.2</td>
<td>7.2</td>
</tr>
</tbody>
</table>

Source: Bernal (2007)
Figure 4.6: Share of Contributors paying less than 6%, 6-10%, or more than 10% of their Monthly Earnings towards Health Insurance, by Selected Sub-Group (percent)

Source: Bernal (2007); World Bank staff calculations

4.28 Levels of health insurance coverage are significantly higher than those of old-age pensions – due both to the Regimen Subsidiado and to the fact that the contributory regime provides benefits to families rather and individuals. Nonetheless, nearly one-quarter of the poorest Colombians remain without any form of health insurance. Moreover, there is some indication that the design of social protection in health, which has been central to producing higher coverage, may also generate incentives for labor informality. This issue of the interaction between the design of social protection and informality is examined in more detail after the following section.

Information Problems

4.29 A recent study of informality in Latin America found that lack of sufficient information about social protection programs is often an important barrier to workers accessing social protection (Perry et al 2007). Both informal self-employed and salaried workers in Bolivia reported the lack of understanding of how the pension system works – not affordability – as the major impediment to participation. Self-employed workers in the Dominican Republic also indicated that a lack of understanding of social protection programs and of their rights to benefits were among the key barriers to them making contributions to health insurance and pension schemes. While the ECH does not collect quantitative data on worker’s knowledge, anecdotal evidence from Colombia also suggests that information problems may adversely affect informal workers’ access to social protection, most notably among poor, less educated workers.

4.30 The CIDER study (2007) surveyed workers from SISBEN I, II, and III on their knowledge and information about social protection, including health insurance, pensions, and professional risks, among others. The study revealed several noteworthy patterns:

- Low-income, informal workers (SISBEN I and II) generally have a low level of knowledge of formal social protection programs and mechanisms. Their knowledge is often quite general, lacking details on program benefits and procedures. Focus group and individual interviews suggest that this low level of knowledge reflects a lack of experience with formal sector work or benefits over their work histories, though many had considerable job mobility within the informal sector.
• In general, knowledge among low-income informal workers is better on health than on pensions. This reflects greater exposure to health insurance via the *Regimen Subsidiado* – although interviews suggested that female workers in SISBEN I and II could not necessarily distinguish between the contributory and subsidized health regimes. Female workers, given the importance of their household roles, commonly had more information on health insurance and services than men, while men often knew more about pensions.

• The interviews suggested that, in general, knowledge about social protection programs and mechanisms increases and becomes more precise as the education and income levels of the worker increases (the latter proxied by differences between those in SISBEN I and II and those in SISBEN III). Overall, informal salaried workers appear to have more detailed information on social protection than do informal self-employed workers (through greater links to the world of salaried employment), although formal workers have far a clearer and more detailed understanding of social protection programs, as well as their rights and entitlements, than do informal workers at any given income level.

• The knowledge that low-income, informal workers obtain about health insurance, pensions, and other social benefits tends to come not through official (job-related or government) channels, but through non official channels, in particular through other workers with greater experience. Even among formal sector workers in SISBEN III, whose knowledge is relatively high, information is often acquired by means of “mutual trust” and “solidarity” with other workers, rather than from their employers or from the government.

**Do Some Social Policies (Inadvertently) Contribute to Labor Informality?**

4.31 A recent debate in policy circles in Latin America has related to whether – and to what extent – the design and implementation of public social policies, including labor market policies and social protection programs, may contribute to labor informality. Concerns about this possibility have been raised in both regional policy research on informality and in country-specific work on social policies in Mexico (Perry et al 2007, Levy 2007). With respect to labor-related policies, for example, it is argued that if formal employers face high non-wage costs, significant labor market rigidities, or high and binding minimum wages, they may hire fewer workers than they would in the absence of these costs. Workers who are rationed out of the formal sector would then be forced to find employment in the informal sector.

4.32 In the case of workers who choose to exit the formal sector, it is argued that part of their explicit or implicit calculations may relate to the design or implementation of social protection programs and policies. It may also relate to workers’ perceptions of the costs and benefits of contributing to formal social security relative to either relying on private risk management mechanisms or participating in non-contributory programs (e.g., the *Regimen Subsidiado*) that provide access to similar types of benefits.

4.33 What does the empirical evidence say about these potential impacts? The section that follows addresses these questions, building on recent and new evidence.

**The Minimum Wage**

4.34 Minimum wages have been seen widely in Latin America as an important tool in countries’ arsenals of worker protections, and Colombia is no exception. Indeed, Colombia has an active minimum wage policy in which the statutory minimum wage level is adjusted yearly to account for inflation as well as increases in worker productivity over time. A number of recent studies, including Santamaria (2000), Arango and Pachón (2004), Maloney and Nuñez (2004), World Bank (2005), and Kristensen and Cunningham (2006), show that Colombia’s minimum wage is among the highest in Latin America. Maloney and Nuñez (2004) find that the ratio of the minimum wage to the median wage in Colombia is 69 percent, compared to only 27 percent in Uruguay, for example (Table 4.3); similarly, they find that the
ratio of the minimum wage to the mean wage in Colombia is 52 percent, compared to only 18 percent in Uruguay. World Bank (2005) found that the ratio of minimum wage to average wage in Colombia was second highest in the region, after Honduras.

Table 4.3: Ratio of the Minimum Wage to the Median and 10th Percentile Wages in Selected Latin American Countries (%)

<table>
<thead>
<tr>
<th></th>
<th>Mw/median</th>
<th>Mw/10th percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>33</td>
<td>67</td>
</tr>
<tr>
<td>Brazil</td>
<td>43</td>
<td>100</td>
</tr>
<tr>
<td>Bolivia</td>
<td>34</td>
<td>80</td>
</tr>
<tr>
<td>Chile</td>
<td>55</td>
<td>109</td>
</tr>
<tr>
<td>Colombia</td>
<td>68</td>
<td>100</td>
</tr>
<tr>
<td>Mexico</td>
<td>48</td>
<td>87</td>
</tr>
<tr>
<td>Uruguay</td>
<td>27</td>
<td>64</td>
</tr>
</tbody>
</table>


4.35 Colombia’s minimum wage is also among the most binding in Latin America. Cunningham (2007) shows that the wage distribution for formal sector workers in Colombia spikes around the vicinity of the minimum wage, which suggests that the minimum wage alters the wage distribution for at least some formal sector workers.62 Interestingly, the evidence also indicates that it affects the wage distribution in the informal sector. Several recent analyses indicate that Colombia’s minimum wage led to higher average wages (Arango and Pachón 2004, Maloney and Nuñez 2004, World Bank 2005). Maloney and Nuñez (2004) find, for example, that a 1 percent increase in the minimum wage leads to between a 0.16 and 1.74 percent increase in wages. Nonetheless, the impact of the minimum wage appear to be concentrated among workers at the 45th–60th wage centiles in the wage distribution; i.e., those who earn 2-3 minimum wages (Arango and Pachon 2004). No clear wage impacts are detected among the very poor.

4.36 While Colombia’s minimum wage has had positive wage impacts on those workers who retain their jobs in the formal sector, increases in the minimum wage are also associated with job losses in that sector – both through higher unemployment and through shifts from formal to informal employment (Bell 1997, Arango and Pachón 2004, Maloney and Nuñez 2004, World Bank 2005). Analysis presented in World Bank (2005) suggests that the largest employment effects of the minimum wage have come through increased unemployment. That is, increases in the minimum wage have contributed significantly to increased labor market segmentation and to a shift from salaried work to self-employment (World Bank 2005, Perry et al 2007). Thus, minimum wage policy in Colombia appears to be contributing in an important way to labor market informality via the route of exclusion.63

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62 If skills were continuously distributed across the labor force and institutions that affect the wage distribution were absent, the wage distribution would be smooth, not clustered, around the vicinity of the minimum wage.

63 It is worth noting as well that the minimum wage is used as the benchmark for both social security benefits, such as the minimum pension (which is set constitutionally at one minimum wage), and for social security contribution levels in health and pensions. To the extent that Colombia’s minimum wage is high and rising, it contributes to high non-wage costs of formal employment in the country (the subject of the next section) and to potential problems of
High Non-wage Costs

4.37 As discussed in Chapter 2, Colombia has some of the highest non-wage costs in Latin America. By the beginning of 2008, non-wage costs – the collection of payroll taxes and parafiscales to finance pension and health benefits, severance pay, worker training, child welfare programs, and workers’ clubs – were around 55 percent of total payroll (see Box 2.1 for details).64 A large body of empirical literature from Latin America and elsewhere shows that high payroll taxes have a negative impact on formal sector employment. Analyzing cross-country data from Latin America, Packard (2002) finds that the size of the total payroll tax for social security lowers the number of contributors in the workforce. Fiorito and Padrini (2001) arrive at similar results in an analysis of labor taxes in developed economies.

4.38 A recent study on Peru by Saavedra and Torero (2004) examined the impact of a rapid increase in non-wage costs in the 1990s, following a series of regulatory changes and reforms. The authors show that the observed doubling of non-wage costs led to a rise in overall labor costs of 10–11 percent which, at their estimated wage elasticity, could lead to a 3–4 percent decrease in formal salaried employment. Another recent study from Brazil (Fernandes, Gremaud, and Narita 2006) simulates the impact of eliminating payroll taxes for unskilled workers (i.e., those earning up to one minimum wage). The authors find that, if combined with deductions of value-added taxes (VAT) paid on capital investment, the elimination of payroll taxes for unskilled workers would lead to a decline in informality of 1.5 percent.65 Several other studies have estimated semi-elasticities of self employment with respect to a change in relative formal sector earnings (Maloney 1998, Krebs and Maloney 1998, Loayza and Rigolini 2006). While the authors come up with a range of estimates, depending on methodology used, they all find that higher levels of non-wage costs lead to greater levels of informal employment (Perry et al 2007).

4.39 Evidence from Colombia is consistent with the broader body of international evidence that higher non-wage costs contribute to lower formal sector and higher informal employment. A study by Kugler and Kugler (2003) examines the increase in payroll taxes and parafiscales in the first half of the 1990s. They find that the sharp rise in non-wage costs – over 10 percentage points between 1989 and 1996 – dampened demand for formal sector workers and likely resulted in higher informality. They estimate that the changes led to a decline in formal employment of roughly 4–5 percent over the period. Cardenas and Bernal (2003) similarly find estimated wage elasticities, which suggest that the increase in non-wage costs in the early 1990s would have led to a substantial drop in labor demand.

4.40 A recent World Bank study (2005) of the Colombian labor market also finds that increases in non-wage costs reduced formal employment. The study analyzes separately the effects of high non-wage costs on unemployment rates and on informal employment, taking into account changes in both labor demand and supply. In terms of unemployment, the study finds that unemployment in Colombia, starting in the late 1990s, was 1.0 to 1.8 higher than it would have been in the absence of increased non-wage costs. Applying co-integration analysis, the study also finds that increased non-wage costs contributed to increased informality during the period; and that such costs have been an important contributing factor in fiscal sustainability of the system if, for example, the government were to want to expand coverage of the minimum pension.

64 Data presented in Perry et al suggests that Colombia has the highest non-wage costs in the region, as a percentage of total payroll. Mexico appears to have the second highest non-wage costs in Latin America, accounting for over 47 percent of payroll.

65 If capital is not exempted, in the Brazil case, the authors find a decline in physical accumulation that decreases the demand for formal workers in the long-run and leaves informality relatively unchanged (Fernandes, Gremaud, Narita 2006).
increased labor market segmentation. This implies that, like minimum wages, high non-wage costs contribute to informality via the route of exclusion.

The Design of Social Protection

4.41 Perry et al (2007) examine how the design of social protection programs can affect workers’ perceptions of the relative benefits and costs of affiliating (or not) with those programs through formal employment. Factors affecting their perceptions include: (a) the physical accessibility of benefits and services for affiliated workers, and any supply constraints; (b) the quality of services offered through the formal system relative to alternatives; (c) workers’ valuation of the multi-dimensional, bundled benefits packages they are required to purchase via payroll taxes; (d) requirements that secondary workers in a family pay into the contributory health insurance system a second time for the same or similar coverage; and (d) program rules that do not account well for labor movement in and out of the formal sector. Perry et al (2007) also examine how the existence of parallel contributory and non-contributory programs (e.g., in health) confront workers with the explicit dilemma of whether or not it is worth contributing. The sections that follow focus on these issues.

4.42 Workers’ valuation of bundled benefits packages. Payroll taxes and parafiscales in Colombia fund a bundled package of social security benefits and services, including health insurance; pensions; professional risk insurance; worker training via the Colombian training institute (SENA); family and child welfare services via the Colombian Institute for Family Welfare (ICBF); and a range of benefits and services associated with the Cajas de Compensación Familiar, including cash subsidies, supermarkets, training courses, credit and recreation facilities and services (see Chapter 2, Box 2.1). Some benefits go directly to workers and/or their families (e.g., health insurance, pensions, professional risk insurance, and training opportunities); while others do not (e.g., the solidarity component of health insurance payments is used to finance part of the subsidized health insurance for the poor and is equivalent to 1.5 percent of the worker’s salary, and family and child welfare services provided via ICBF).

4.43 While some workers may value all elements of the package, others may only value some of them. Similarly, some workers may appreciate the opportunity to make solidarity contributions that finance services for non-contributing individuals, while others may not. To the extent that workers do not value one or more components of the package, those components would be seen by the worker as a “pure tax” on their earnings. In addition, some workers lack confidence in the Government’s ability or commitment to pay their pensions 20 years in the future, and so may view their pension contributions as a pure tax.

4.44 Evidence from other Latin American countries suggests that the valuation of bundled benefits is an important issue. In Mexico, the benefit package offered by IMSS, the social security institute for private sector workers, includes eight mandatory components: (a) health insurance, (b) retirement pensions, (c) disability insurance, (d) professional risk insurance, (e) life insurance, (f) day care centers for workers, (g) sports and cultural facilities, and (h) housing credits. Recent analysis of the system suggests that weaknesses in several pieces of the package create disincentives for workers to affiliate with social security as a whole. For example, IMSS’s own employees have particularly generous pensions upon retirement, and these pension liabilities are increasingly underwritten by private sector affiliates’ health insurance contributions, at the expense of IMSS-provided health services. According to IMSS’s own analysis, by 2018, the amount of money available for health spending per member entitled to health care services (derechohabiente), after subtracting the pension, payroll, and benefits costs of its own workers, will have declined to zero (Mason et al 2007). In addition, while all workers (and employers) are required to contribute to the housing subsidy, they have traditionally been unable to access those funds in practice,
due to the nature of the Mexican housing/mortgage market. Both the health insurance and housing examples highlight how importantly one piece of a bundled package can affect the value – along with workers’ perception of the value – of the social security package as a whole.

4.45 Evidence on how bundling of social security benefits affects worker incentives is relatively scarce in Colombia, and further investigation is certainly warranted. Nonetheless, some suggestive evidence does exist with respect to pensions. As noted earlier in the chapter, several informants for the CIDER study (2007) expressed concern about whether pension contributions (if made) would actually be available to them when they retire. Such concerns create disincentives for affiliation with the entire package, regardless of workers’ perceptions about other elements of the bundle. Perhaps more importantly, bundling of a multiplicity of benefits under the current social security system is a key source of the high non-wage costs that dampen overall demand for formal employment.

4.46 Requiring secondary household workers to pay for benefits they already receive as dependants. A common feature of formal social security in Latin America is that when a second worker from the same immediate family enters the formal sector, he or she is required to contribute via payroll taxes to health insurance benefits, even though that worker may already be covered under the primary family earner’s insurance. In such circumstances, the second earner may face marginal costs of contributing that are higher than the benefits he or she gets from being formal. This problem has become increasingly important over the last couple of decades, as female labor force participation rates have increased. Galiani and Winschelbaum (2006) argue, for example, that in Argentina, significant numbers of female workers entering the workforce have chosen to be informal because their husbands were already eligible for benefits; the authors estimate that this phenomenon led to a 13 percent increase in informality between 1974-76 and 1999.

4.47 It is unclear how serious this problem is in Colombia. In contrast to some other countries in the region, dependent family members receive a more modest package of benefits than those who contribute directly to the formal system, which means that there are additional benefits associated with entering the formal sector. At the same time, there are at least a couple of reasons why this may be insufficient to induce secondary family workers into the formal sector. First, depending on their general health conditions and expected health needs, family secondary workers may not place a high value on the additional health benefits, and so may consider that the marginal costs associated with payroll taxes exceed the marginal benefits associated with access to the expanded healthcare package. Second, given their lack of specific information about Colombia’s social security programs, workers may not understand that they will receive additional benefits through direct affiliation. If so, they may wrongly perceive formal sector payroll taxes for health insurance as a pure tax with no marginal benefits.

4.48 Competing contributory vs. non-contributory programs – the contributory and subsidized regimes in health. The ECH data suggest that roughly half of all Colombians who have health insurance are insured by the Regimen Subsidiado. Moreover, a recent evaluation of the impact of the Regimen Subsidiado on health service access in Colombia (Gideon 2007) suggests that the subsidized regime has

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66 Recent changes in the administration of the IMSS housing benefit provide easier access among low-income workers. Nonetheless, data collected by IMSS between 1997 and 2005 suggests that a significant proportion of affiliated workers have faced barriers to accessing the housing benefit. Roughly two-thirds of the almost 9 million IMSS-affiliated workers are “low-income workers”, earning less than 3 minimum wages (Levy 2006a), and it is possible that most or all of these workers were unable to access the IMSS housing subsidy (or their related contributions) prior to recent institutional changes.

67 In this regard, Chapter 6 on policy recommendations focuses on the public policy rationale for bundling and payroll tax financing of a multiplicity of social security benefits.
been successful in increasing health care access and utilization among the poor – certainly an important social outcome. At the same time, the several recent studies for other countries have suggested that when workers at the margin of informality and formality are faced with the prospect of joining the formal sector and purchasing contributory benefits or staying in the informal sector and receiving similar – or even more modest – benefits for free, some workers may choose to work in the informal sector to avail themselves of the free benefits (Levy 2007, Perry et al 2007). In this context, questions have arisen about whether, and to what extent, the Regimen Subsidiado creates incentives for workers to stay – or become – informal in Colombia.

4.49 Levy (2006) models the labor market decisions of utility-maximizing workers between the formal and informal sectors, given a predetermined bundle of social security benefits available to formal sector workers, on one hand, and an unbundled collection of social assistance benefits available to informal sector workers, on the other. Consistent with the situation in Colombia (and elsewhere in Latin America), workers must pay for social security benefits via payroll taxes, while parallel non-contributory programs (e.g., the Regimen Subsidiado) offer benefits for free to workers outside the formal sector. When workers’ valuations of the relative benefits differ, due to inherent preferences or differences in the quality of program benefits, they self-select into formal and informal sector jobs, affecting the composition of the labor market. A general conclusion of Levy’s model is that when social protection policy consists of many competing programs with distinct rules of access (e.g., conditioned on formal vs. informal job status) and different forms of financing (e.g., payroll taxes vs. general revenues), it can generate unanticipated and sub-optimal labor outcomes. Specifically, the informal sector will be larger than if the distortions created by competing programs did not exist.

4.50 So, what is known about the potential and actual effects of the Regimen Subsidiado on informality? A new study by Camacho and Conover (2007) commissioned for this report, analyzes the issue using household and individual-level data collected by local governments between 1995 and 2003, as part of the SISBEN registry. The study outlines several factors related to the contributory and subsidized regimes that could affect workers’ preferences for formal versus informal employment.

4.51 Camacho and Conover (2007) highlight several factors that might affect workers’ relative preferences for affiliating with the subsidized or the contributory regime, under the basic assumptions that: (a) workers are able to move between sectors; and (b) they explicitly or implicitly assess the relative benefits and costs of being formal vs. informal on the basis of the relative costs of affiliation, the relative nature and extent of services offered, and the quality of health services under each regime. Formal self employee’s sector workers contribute 12 percent of their salary to contributory health insurance, while the subsidized regime is free to eligible families. At the same time, the contributory regime offers a more comprehensive package than the subsidized regime. In this context:

- Workers’ preference for the contributory or subsidized regime will be linked, in part, to their health needs. For those who do not anticipate having extensive health needs, the additional services offered by the contributory regime may not offset the cost of enrollment. Alternatively, households and workers who anticipate significant health needs – e.g., the elderly and households with women of child-bearing age or with newborns – may prefer more comprehensive health insurance coverage.

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68 Note that if some workers have only partial – or even inaccurate – information about the relative costs and benefits of the contributory and subsidized regimes, as the CIDER study (2007) suggests, then workers may not be making factually correct calculations of the relative benefits and costs of affiliating to one regime or the other. Nonetheless, to the extent that workers have perceptions that one regime is a “better deal” than another, this can influence their preferences to affiliate with one program or the other.
Concerns about maintaining family coverage may also impede potential switches from the subsidized to the contributory regime. When families already enrolled in the subsidized regime have a member who gets a formal sector job, the family can arrange for some members to remain in the subsidized regime as long as they are not considered dependants under the contributory regime. This rule does not appear to be widely understood, however, and anecdotal evidence suggests that some informal workers choose not to become formal to avoid the risk of having some uninsured household members.

Broader concerns about loss of coverage under the subsidized regime may stop people from seeking formal employment. It takes time and effort to become enrolled in the subsidized regime, so people with seasonal jobs or high job uncertainty who are already affiliated with the Regimen Subsidiado can prefer to maintain that coverage, even if they become eligible for the contributory regime. Recognizing the concern, in 2005 the Government decided to allow new formal sector employees to maintain their Regimen Subsidiado affiliation for one year after getting a formal job.69

4.52 The likelihood that segmentation and fiscal restrictions served to limit the informality effects of the Regimen Subsidiado raises some cautionary notes for the future. As additional spaces are made available to affiliate with the Regimen Subsidiado, due to the current Government’s drive to universalize health insurance, the disincentive effects for formal employment may well increase. Thus, while the Regimen Subsidiado plays a very important role in providing health protection to Colombia’s poor informal workers, it would be worthwhile for the Colombian Government to consider, moving forward, how to develop a more incentive-compatible system for achieving universal health insurance.

69 Prior to 2003, people would lose their eligibility for the subsidized regime after becoming formally employed. In 2003, the law was reformed to enable Regimen Subsidiado affiliates to keep their affiliation for three months after obtaining a formal job. In 2005, the law was updated again to enable people to maintain their affiliation for up to a year.
Box 4.1: Do Conditional Cash Transfer Programs, such as Familias en Acción, Promote Informality?

As a debate has arisen in Latin America about the informality effects of parallel non-contributory and contributory programs, some observers have raised questions about whether conditional cash transfer programs (CCTs), which have been introduced widely in Latin America during the last decade or so, could also be promoting informality. CCTs are programs that provide cash transfers to poor families in return for these families undertaking certain basic human capital investments in their children, including investments in basic education, health, and nutrition. Colombia’s CCT program, Familias en Acción, is well-known in the region. The program has been the subject of rigorous impact evaluation, and has been found to have positive impacts on children’s schooling and nutritional outcomes, as well as on beneficiary households’ levels of expenditure on food (Institute of Fiscal Studies 2005, Attanasio et al 2006).

In terms of the potential impacts of CCT programs on informality, Levy (2007), one of the main protagonists in the debate over the roles and impacts of parallel contributory and non-contributory social programs, argues that CCT programs should not contribute to informality, since while they are designed to raise poor children’s education, health, and nutrition levels, children or youth “graduate” from CCTs before they enter the labor market, and the programs are not designed to influence or made conditional upon beneficiaries subsequent labor market decisions — either to enter the formal or informal sector. If anything, by raising the education levels of children and youth in recipient households, they could raise the probability of a beneficiary entering (ultimately) a formal sector job. Levy (2006) notes that a significant share of beneficiaries of the Mexican CCT program, Oportunidades (formerly called Progresa), work in the formal sector.

Some observers have also raised concerns that CCTs could have negative effects on adult labor supply in beneficiary households as a result of the income effects of the transfer. While no empirical research has been done on this issue in Colombia, several researchers have examined this question in the context of the Mexico Progresa/Oportunidades program. Specifically, Parker and Skoufias (2000), Skoufias and Di Maro (2006), and Levy and Rodriguez (2006) analyze the impact of the program on the labor supply of adults in beneficiary households. None of the studies finds significant negative effects of the program on adults’ labor force participation. Skoufias and Di Maro (2006) do find short-term declines in the labor force participation among one specific sub-group, women age 45-54. But these effects disappear over time. The authors also find an increased probability of adult beneficiaries engaging in salaried work — although this effect also is found to disappear over time.

4.53 Program rules that do not account for labor movement. The design of most social security systems in Latin America, including in Colombia, was originally based on the assumption — prevalent in Europe and the U.S. at the time — that workers spend their entire working lives in the formal sector. This approach was also consistent with the long-standing view in Latin America that flows of workers between formal and informal sector jobs — and particularly from formal to informal jobs — are small. In reality, however, workers’ mobility has important implications for their access to social security benefits; and in some cases, it can fundamentally affect their incentives to affiliate with the system. In the case of Colombia’s contributory health insurance program, when workers who move out of formal sector jobs — even temporarily — they can face periods in which they lack access to health insurance. As discussed earlier, concerns about loss of insurance coverage among poor workers who would like to move from informal to formal sector jobs led to a change of program rules for the Regimen Subsidiado. Formal employees are now able to maintain their affiliation with the subsidized regime for up to a year after getting a formal job. But lack of more systematic provisions for worker movement by the health system as a whole can still lead to intermittent coverage among workers and their families, as well as high personal and system-wide efficiency costs associated with switching across sub-systems whose rules and eligibility requirements are not fully integrated.

4.54 Perhaps more importantly, the design of Colombia’s pension program — with its long vesting periods and savings requirements — makes it difficult for workers who do not have long formal sector work histories to qualify for a pension. Indeed, to the extent that workers contemplating formal sector employment believe that they will not be able to attain the minimum number of years of contributions, they face a strong disincentive to join the pension system.
Colombia’s pension system is based on Law 100 of 1993, which established two separate pension schemes that run in parallel: a public pay-as-you-go (PAYG) scheme and a private scheme based on individual savings accounts. Formal sector workers are allowed to switch between the two schemes at intervals, subject to some restrictions (Forteza 2007). According to Law 100 and a subsequent law passed in 2003, all salaried as well as self-employed workers are mandated to participate in the pension system.

Both systems require a large number of years of contributions to qualify for a pension. In the PAYG system, the minimum number of years needed to qualify is being gradually increased – from 20 years in 1993 to 23 years in 2008 to 26 years in 2015. The retirement age is also being increased: from 60 and 55 (for men and women, respectively) in 1993 to 62 and 57 in 2015. Contribution rates have also been increasing over time: from 13.5 percent of the wage in 1993 to 16.0 percent by the start of 2008. In addition, replacement rates have been reduced and the number of contribution wages used to compute the pension was also increased. All workers who qualify for a pension are guaranteed a minimum amount. Those who do not meet the qualifying conditions must continue working or withdraw their PAYG balance, which is the sum of their contributions adjusted by inflation (Rudolph et al 2006).

The individual savings account system has the same contribution rates as the PAYG system, with the amount of the pension depending on the accumulated savings. Workers enrolled in this system do not have to contribute for a minimum amount of time and do not have a minimum retirement age at which they can access the pension. They can retire when the accumulated savings allow them to buy an annuity no smaller than 110 percent of the minimum pension guarantee.

Data regarding the density of workers' pension contributions were not available for Colombia at the time this report was written. However, evidence from other countries suggests that many, if not most, of Colombia’s pension contributors will have difficulty meeting the minimum vesting requirements, if such minimums are enforced. Analysis of contribution densities in Uruguay, for example, suggests that only around 30 percent of registered workers will have made a sufficient number of contributions to receive a pension by the age of 65 (Bucheli et al 2006; Bucheli, Forteza and Rossi 2007). The likelihood of achieving the required number of contributions was found to be significantly lower for low-income than for high-income workers; probabilities are also lower for female than for male workers. Along similar lines, recent analysis of labor mobility in and out of the formal sector in Mexico suggests that low-income workers registered with the Mexican Social Security Institute (IMSS) would have to work as many as 50 years to attain the 25 years worth of contributions needed to qualify for the guaranteed minimum pension (Levy 2006).

Colombia’s broader system of old-age security includes other components that are either partially subsidized or non-contributory. The non-contributory components are a cash transfer program and a feeding program, both relatively small and targeted to indigent seniors. More relevant to the discussion of labor mobility and intermittent pension contributions is the partially subsidized scheme, Fondo de Solidaridad (FSP), created by Law 100 at the same time as the public and private pension schemes.

The FSP was designed to raise pension participation among low-income workers by subsidizing their contributions to the public PAYG scheme. Only workers who contribute to the formal system are eligible to receive the subsidy. The scheme’s coverage has been relatively low, however, which implies that the incentives created by the FSP are not strong enough to overcome factors such as high minimum wage and non-wage costs; lack of information about the program among low-income workers; and the inability of poor workers – all of which contribute to low participation in the formal system among significant segments of the labor force.

Conclusions
4.61 A number of different measures and indicators point to significant demand for social protection services on the part of both formal and informal sector workers. The evidence also shows that significant portions of the informal labor force – both self-employed and salaried workers – would be willing to pay or give up their independent status to have access to social protection. Qualitative evidence, based on focus group and key informant interviews, provided some nuances regarding the nature of this demand, particularly among low-income workers. While low-income workers generally placed a relatively high value on social protection in health, their views about the value of pensions were more mixed. Respondents generally understood the need for old age security, but many also expressed a preference for current as opposed to future benefits and services. Others wanted more flexible social protection instruments that would give them access to saving in the short as well as the long term, and that took account of variability and/or seasonality in their income streams.

4.62 The ECH data showed significant differences in the level of health and pension coverage (which, interestingly, were consistent with the preferences expressed during interviews with workers). Just over 80 percent of the working age population are covered by some form of health insurance – about half by the contributory regime (either as direct contributors or beneficiaries) and the other half by the Regimen Subsidiado. Health coverage is also fairly evenly distributed across categories of jobs and workers; even informal workers and their families have coverage rates above 72 percent as a result of the Regimen Subsidiado. High health coverage stands in stark contrast to low pension coverage; only around 29 percent of the working age population reports being covered. Moreover, there are major differences across job and worker categories. While formal workers, by definition, have full coverage, informal workers are almost completely uncovered. Only around 8 percent of informal employees, the most covered informal workers, report having pension coverage.

4.63 Among those not covered by pensions or health insurance, the issue of workers’ ability to pay appears to be of critical importance. Nearly 70 percent of all informal workers and more than 80 percent of workers in the poorest quintile say the main reason they do not contribute to pensions is that they cannot afford it. This is consistent with responses from the focus group and key informant interviews. For those who do not contribute to health insurance, the pattern is somewhat different – although the issue of affordability is still very important. Roughly 54 percent of workers who do not contribute say they are already covered, either as a beneficiary (dependant) of a contributing worker or by the Regimen Subsidiado. Nonetheless, roughly 58 percent of all uncovered workers and 73 percent of uncovered workers in the poorest quintile say that the main reason they do not contribute to health insurance is that they cannot afford it.

4.64 The focus group and key respondent interviews also suggest that lack of information and knowledge on the part of low-income, informal workers plays a role in their lack of coverage. In general, informal workers’ knowledge of health insurance is better than their knowledge of pensions, reflecting in part greater exposure to and participation in health programs via the Regimen Subsidiado. Not surprisingly, workers’ functional knowledge appears to be positively associated with their education and income levels. Workers with higher levels of education and/or higher incomes demonstrated clearer and more detailed understanding not only of social protection, but of their broader rights and entitlements as workers.

4.65 The analysis also found that certain social policies can contribute to high levels of informality in Colombia. The evidence shows, for example, that the high minimum wage and high non-wage costs are important segmenting forces in the Colombian labor market, which contribute to higher informal employment by rationing out of the formal sector some workers who would prefer to be formal. At the same time, the design of social protection programs affects their perceptions of the relative benefits and costs of becoming formal. The following design features are at issue: the “bundling” of multiple benefits
into a single social security package, some of which workers may not value; the requirement that secondary household workers pay for health benefits that they already receive as dependants; competing contributory and non-contributory programs in health (specifically the *Regimen Subsidiado* which, at the margin, appears to create incentives for informality); and the failure of contributory health and pension programs to account well for labor mobility in and out of the formal sector.
5. Firm Informality in Colombia

Introduction

5.1 This chapter analyzes the various potential determinants of informality among firms, and illustrates some of the consequences that informality appears to have on firm performance. It is important to stress, however, that there are considerable methodological challenges in distinguishing between the negative impacts that informality may have on firm productivity from the causal effects that may operate in the opposite direction.

5.2 The low productivity of informal enterprises is often a cause of informality and not a consequence of it. Microentrepreneurs with very low levels of human and physical capital are likely to operate very small and low-productivity businesses with limited growth potential. Because of their small size, these firms may find that using informal arrangements for accessing inputs – e.g., obtaining credit from family and friends rather than from formal financial institutions, or counting on trust rather than on formal contract enforcement mechanisms – is more efficient than having to pay the costs associated with regulatory compliance. Whereas formality could help small, unproductive firms gain access to wider markets and government services, they may not need those markets and services. Moreover, given their very small size, most microfirms can reasonably expect a very low probability of being caught, which further justifies the option for remaining unregistered and informal. Higher-productivity microfirms, on the other hand, may want to expand but be prevented from doing so by the high cost of regulatory compliance, which could to some extent exclude them from the formal sector. In the case of these firms, their failure to register with the government and pay taxes could limit their access to services and markets. Their unfavorable performance would in this sense be a consequence of informality rather than a cause.

5.3 The implication of this type of heterogeneity is that reducing registration and other costs of regulatory compliance may affect the decision to operate informally of this second group of firms, which are closer to the margin separating the informal from the formal sectors. In the case of the first group – located farther away from the margin and with a limited growth potential – incorporating them to the formal economy may require other types of interventions, whose effects are likely to materialize only in the medium to long term. Those measures include changes in educational policies and improvements in the investment climate aimed at raising productivity in the formal sector and reducing the attractiveness of operating informal businesses.

5.4 It is important to note, however, that informality is not always a binary phenomenon: even formally registered medium and large firms are known to underreport their sales for tax purposes and to not register some of their employees with the social security agency. In choosing their degree of formality, these firms also perform an implicit or explicit cost-benefit analysis, weighing the cost reductions associated with tax and social security evasion against the risk of being caught by regulators and the possible negative effects that informality may have on their ability to widen their markets and hire high-productivity workers. Thus, to the extent that enforcement is weak and uneven, and firms view the risk of being caught as low, they may opportunistically choose to evade a fraction of their taxes and social security contributions. Moreover, evasion is likely to be higher if firms have a perception that most of their competitors and clients are also evading, so that evasion may not have a larger effect on accessing input and product markets.

5.5 This opportunistic behavior is likely to be even more prevalent when there is a collective view that tax and social security resources are being poorly used, when alternative parallel systems provide similar services but do not require contribution (e.g. the Regimen Subsidiado in health in Colombia) and, more generally, when the State’s actions are perceived to be ineffective, unfair, and/or illegitimate. This situation can give rise to a social norm of regulatory non-compliance – a so-called “culture of informality” – which can further reduce the State’s effectiveness and its ability to enforce the law. In this
context, policy interventions aimed at reducing evasion are likely to require both sticks and carrots. The former include efforts to modernize enforcement techniques, through, e.g., improved tax auditing systems and effective use of information and communication technology (ICT). The latter include actions aimed at improving the quality of governance and institutions in general, as well as the quality and relevance of services, in order to promote a positive perception of the services produced using social security resources. Whereas this is certainly a complex and long-term agenda – and this is not the right context to address it in detail – it is a critical one for maximizing the impact of improved enforcement on firms’ levels of regulatory compliance.

5.6 The rest of this chapter is organized as follows. The next section reviews evidence from various data sources on the incidence of informality in Colombia. The third section assesses the relative importance of various potential determinants of informality in Colombia. This is followed by a review of the evidence on the consequences of informality, and by policy implications and concluding remarks.

The Incidence of Informality

Survey-Based Estimates of Firm Informality

5.7 To complement the international comparisons, it is useful to examine local estimates of the level of informality among firms surveyed by the Colombian statistical agency (DANE). Surveys carried out by DANE suggest that between 40 and 75 percent of Colombian microfirms – defined by law as having at most 10 workers and total assets of at most 501 minimum wages – are informal. The incidence of informality among microfirms varies considerably with the definition of informality and the data source employed. This is illustrated in Figure 5.1, which is based on data from the 2002 and 2003 microenterprise surveys and the 2001 “123” survey, all carried out by DANE. Figure 5.1 shows that between 41 and 46 percent of Colombian microfirms lack a commercial registration. Informality is more prevalent, however, when defined on the basis of not paying taxes (44 and 62 percent, respectively, in the microenterprise survey and the 123 survey), not paying social security contributions (65 and 74 percent), or not reporting licensing or registration expenses (72 and 86 percent). While these rates are quite high, similar surveys performed for Mexico and Brazil yield even larger rates of informality among microenterprises – respectively, 63 and 76 percent of microfirms in those countries are not registered, and 76 and 94 percent do not pay taxes.

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70 The “123” survey has more detailed firm information but its sample is not restricted to cover only microfirms: it covers firms with at least one of the following characteristics: (a) less than 10 workers; (b) no formal accounting; and (c) not incorporated.

71 The last definition is available only for the 2001 “123” survey.
Figure 5.1: Incidence of Microfirm Informality under Different Definitions

![Graph showing incidence of microfirm informality under different definitions.]


5.8 There is an 85 percent probability that a firm that is not commercially registered is also informal in the sense of not paying taxes or social security contributions (Table 5.1). This suggests that the commercial registry operates as a port of entry into formality. That a firm crosses that port of entry, however, does not necessarily imply that it will achieve formality in all other dimensions. More than one third of the firms that do not pay taxes are registered, and so are 46 percent of firms that do not pay social security contributions.

Table 5.1: Conditional Informality Probabilities, by Definition of Informality

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<tr>
<th>Conditional on:</th>
<th>Probability of:</th>
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<tr>
<td></td>
<td>No Commercial Registration</td>
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<tr>
<td>No Commercial Registration</td>
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</tr>
<tr>
<td>No Taxes</td>
<td>0.85</td>
</tr>
<tr>
<td>No S.S. Contributions</td>
<td>0.87</td>
</tr>
<tr>
<td>No Expenses with Licenses, Registration</td>
<td>0.94</td>
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Source: Cardenas and Rozo (2007) on the basis of data from the “123” survey.

5.9 Regardless of the definition used, formality rates are lower among smaller firms. According to the 2000-2003 microenterprise surveys and the 2001 “123” survey, respectively, 60 and 57 percent of owner-only firms lack a commercial registration, 56 and 76 percent do not pay taxes, 92 and 89 percent do not pay social security contributions, and 86 percent (“123” survey) report no expenses for registration or government licenses (Figure 5.3). The importance of informality among smaller firms is underscored by the fact that 95 percent of all Colombian firms are microenterprises, and that among firms in that size category, more than one half have only one employee and almost 45 percent have between 2 and 5 (Figure 5.2).
5.10 While nationally representative data on the incidence of informality among larger firms is not available, the 2005 Enterprise Census provides such information for the provinces of Cali and Yumbo. Figure 5.3 reports informality rates for these two provinces calculated by firm size. As expected, informality is more prevalent among microenterprises. It is lower among small and medium firms (with more than 10 but fewer than 100 employees) and even lower among large firms (with more than 100 workers). While only between 6 and 9 percent of large firms have no commercial registration, lack registration with the tax authority, or report not paying social security contributions. The percentages are also low for small and medium firms, with only 7 or 8 percent without tax or commercial registration and about 23 reporting not contributing to social security. These numbers are much higher for microfirms, with 36 and 37 percent without commercial or tax registration, and as many as 73 percent who report not paying social security contributions.

Figure 5.3: Informality Rates by Firm Size, Cali and Yumbo Provinces (2005)

5.11 The Census estimates imply that a non-negligible fraction of informal employment is found in larger firms and outside the microenterprise sector. Even though firms with more than 10 employees represent only 5.6 percent of the total number of firms in Cali and Yumbo, they account for 51 percent of total employment. Not surprisingly, given the non-negligible informality rates reported in Figure 5.3 for firms with more than 10 employees, between 20 percent and 25 percent of informal employment – depending on the definition of informality – is found in firms with more than 10 workers (Figure 5.4).
Figure 5.4: Distribution of Informal Employment by Firm Size, Cali and Yumbo Provinces (2005)


5.12 As for the recent evolution of firm informality in Colombia, the only available data come from the microenterprise surveys performed by DANE between 2000 and 2003. As shown in Figure 5.5, at least during this period, there were no noticeable changes in the fraction of firms that do not collect social security contributions. However, the percentage of firms that in 2003 reported not having a commercial registration or not paying taxes – respectively, 46 and 54 percent – was considerably higher than in previous years – respectively 34 and 41 percent. As seen in Figure 5.5, similar increases are apparent among owner-only firms. Based on the above definitions, between 64 and 67 percent of those firms were informal in 2003, compared to about 52 percent in 2002.

Figure 5.5: Evolution of Microfirm Informality, 2000-2003


Evidence on Tax Evasion in Colombia

5.13 Starting in 2003, Colombia’s tax authority (DIAN) has implemented various internal measures to increase tax collection, reduce evasion and contraband, and improve client satisfaction by taking advantage of information and communication technologies and simplifying administrative procedures. These reforms have already generated significant results, with total tax collection increasing from 13.5 percent of GDP in 2003 to 16.6 percent in 2006.
5.14 To some extent, these results have followed DIAN’s increasing emphasis on tax enforcement. Tax audits have increased from about 65,000 in 2002 to about 200,000 in 2006, and are projected to reach 350,000 in 2007. Moreover, DIAN has established a physical presence in about 500 municipalities, compared to 120 in 2002. Not surprisingly, as shown in Figure 5.6, relative tax evasion – calculated as the fraction of potential tax collection – has been significantly reduced. In the case of income taxes, for instance, relative evasion has dropped from 34 percent in 2002 to less than 29 percent in 2005. While reductions in contraband have been smaller, from 15.4 to 14.3 percent of total imports, the evasion of value-added taxes has been reduced considerably, from 26 percent of total potential collections in 2002 to 21 percent in 2005. Overall, DIAN estimates that in 2005, the evasion of income taxes represented 2.6 percent of GDP, VAT tax evasion amounted to 1.7 percent, and contraband to 2.4 percent of GDP.

Figure 5.6: Tax Evasion and Smuggling in Colombia, 2002-2005

Source: DIAN, Fiscal Studies Division.

Figure 5.7: Tax and Social Security Evasion as Reported by Firms (2006)

Source: Authors’ calculations, using data from World Bank’s Enterprise Surveys.

5.15 Although it is difficult to compare DIAN’s estimates of tax evasion with similar estimates for other countries in the region, the enterprise surveys recently carried out by the World Bank provide some indications. As shown in Figure 5.7, Colombian enterprises report that about 17 percent of the sales of typical firms in their lines of business are under-reported for tax purposes; and that firms fail to pay social security contributions for 15 percent of their workers. These data place Colombia near the average of the group of middle and large Latin American countries shown in the figure, with higher evasion rates than in Chile and Peru, but lower rates than in Argentina and Mexico. As expected, the incidence of tax evasion tends to decrease with firm size. This is especially the case in Colombia, where the fraction of sales that
goes unreported for tax purposes is estimated to be only 6 percent for firms with 100 plus employees, compared to at least 10 percent among firms of the same size in other countries of the region (Figure 5.8).

**Figure 5.8: Tax Evasion by Firm Size (2006)**

Source: Authors’ calculations, using data from World Bank’s Enterprise Surveys.

5.16 Somewhat surprisingly, despite the evidence that tax evasion is not particularly higher in Colombia than in the rest of Latin America, Colombian firms are more likely to describe the practices of competitors in the informal sector as a major or very severe obstacle to their operations. As shown in Figure 5.9, this statement is made by 45 percent of Colombian firms. Moreover, 53 percent of firms state that informal competition is one of the three most serious obstacles to their operations, compared to 46 percent in Peru, 37 percent in Mexico, and about 30 percent in Argentina and Chile.

**Figure 5.9: Informal Competition as an Obstacle to the Operation of Firms**

Source: calculated by authors on the basis of World Bank’s Enterprise Surveys.

**Determinants of Informality**

5.17 As discussed in Perry et al (2007), firms’ decisions to operate in the formal or informal sector, and their levels of tax and regulatory compliance, are likely to be based on cost-benefit analysis that takes into account the firms’ and entrepreneurs’ assets and productivity, and the characteristics of the business environment in which they operate. From this perspective, some of the main private benefits of informality are the avoidance of tax payments and social security contributions, and the added flexibility and lower costs resulting from non-compliance with labor market and other government regulations. As for the main costs of informality, they include the risk of being caught and the expected value of the associated fines and other resulting losses. As a result, informal firms have an incentive to remain small in order to avoid being detected by government inspectors, which can also be considered a disadvantage of informality. Other costs include a more limited access to markets, for both inputs (such as credit) and
outputs, especially in the context of value-added taxation; and to government services (e.g., contract enforcement and SME support programs) – which may further restrict the ability and incentives of informal firms to expand.

5.18 The relative importance of the various private costs and benefits of informality are likely to vary not only across countries with different business environments – e.g., different levels of tax and other regulatory burdens – but also within countries, depending on various firm characteristics, including the stage of their life cycle. Thus, small and young firms are more likely to be informal because of their larger reliance on local markets, implicit contracts (with a consequent more limited use of formal contract enforcement mechanisms), and internal sources of finance (including credit from family and friends). When and if firms expand, the need for wider markets, formal contracts and external sources of finance would increase, and so would the relative benefits from formality. Low-productivity firms, however, and those owned by individuals who are just waiting for better opportunities of salaried work, may never grow to the point where the benefits from formality overcome the corresponding costs.

5.19 The observation that informal firms exhibit lower productivity than formal firms, even controlling for observable attributes, is not convincing evidence that there would be a significant growth dividend from reducing informality. Assuming that firms have some knowledge about their current productivity and future growth prospects, such productivity differentials between the formal and informal sectors could be explained by self-selection of low-productivity firms into informality. Thus, removing barriers to formality could have only a limited impact in terms of increasing firm productivity. Moreover, isolated efforts to increase regulatory enforcement could lead to the failure of many low-productivity informal firms and potentially to reductions in the productivity of surviving newly formalized firms – as per the evidence in Almeida and Carneiro (2003). There could be positive consequences on aggregate productivity through composition effects – with higher-productivity formal firms gaining market share – but, at least, in the short term, these could be accompanied by increasing levels of unemployment.

5.20 There is likely a virtuous circle linking productivity and formality: higher levels of productivity are likely to entail more possibilities of formalization, while higher levels of formalization lead to higher productivity. In this context, it is possible that, for self-employed workers, informality is a voluntary decision driven by low levels of human capital and productivity. This seems to be the view expressed in CONPES (2007), according to which the strategy for microenterprises should be focused on increasing productivity first, leaving for a second stage the removal of barriers to formalization. The logic here seems to be that microfirms need to grow or be more productive before being able to perceive the benefits of formalization, such as access to markets and specific buyers. In this context, the costs of formalization are much less relevant.

5.21 The evidence available from Colombian firms and workers does not allow much more to be said in quantitative terms about the different behavior of microfirms compared to small and medium enterprises. Elsewhere in the region, there is evidence that formalization increases productivity, but the effect varies with the size of the firm. In Bolivia, for example, tax registration appears to have a positive effect on the profitability of firms with 3 to 5 workers, but a negative effect on smaller and larger firms (McKenzie and Sakho, 2007). In the case of Brazil, the tax simplification achieved with the SIMPLES (see Box 5.1) regime seems to have had positive impact on the formality and productivity of smaller firms.72 To assess the potential effect of different policies on the productivity of Colombian microfirms and SMEs, further research will be needed.

Evidence from Microenterprise Surveys

72 Additional information on the SIMPLES Program can be found in Box 5.1 below.
5.22 Data from DANE’s “123” survey confirms the links between a firm’s and owner’s characteristics and the firm’s likelihood of operating informally. Figure 5.10 shows that the motivations of microfirm owners for starting their businesses play a role in their decision to formalize. Thus, formality rates are higher for entrepreneurs who entered the microenterprise sector seeking more independence, stability, higher income, or the continuation of a family tradition. In contrast, the firms of those who were unemployed prior to starting up are much more likely to be informal; and the same applies to owners who were motivated by the desire to supplement other sources of income. In other words, those who start their businesses as a last resort or in order to complement other income-generating activities are less likely to formalize, probably because they have fewer expectations of expanding and thus of benefiting from formalization.

![Figure 5.10: Motivation for Starting Microfirms by Commercial Registration Status](image)

Source: Cardenas and Rozo (2007) on the basis of data from the “123” survey.

5.23 Formality rates in Colombia are also associated with the age, gender, and education of microentrepreneurs. Cardenas and Rozo (2007) find that females are slightly less likely to formalize their businesses – i.e., the probability of a female-owned business being commercially registered is two percentage points lower than for male-owned businesses – which contrasts with opposite findings obtained for Mexico and Brazil and reported in Perry et al. (2007). The effects of age and education, however, are of the same sign in Colombia and those other countries: older individuals and those with higher levels of education are less likely to keep their businesses in the informal sector. These results are consistent with the hypothesis that firms with better growth prospects – which are arguably correlated with the labor market experience and schooling of the corresponding entrepreneurs – would stand to benefit more from formalization.

5.24 Cardenas and Rozo (2007) also estimate the impact of firm size and age on the probability of a microfirm being commercially registered. They find that formality rates increase quite rapidly as firms grow older and absorb more employees. The probability of not being commercially registered is 21 percentage points higher for owner-only firms than for the average firm with 1.9 workers. Moreover, the probability of being informal decreases by 8 percentage points with each additional employee. Similarly, at least among young businesses, the likelihood of being unregistered falls rapidly with each additional year in business – by 19 percentage points for one-year-old firms and by 12 percentage points for two-year-old firms.

5.25 After controlling for firm and owner characteristics, Cardenas and Rozo (2007) find that, at least in the case of microenterprises, the probability of being informal is eight percentage points lower for firms in retail trade than for those in other service sectors, and about seven percentage points higher for those in
manufacturing. Moreover, they find that firms that operate at street sites, in vehicles, or at the clients’ domiciles have probabilities of not being registered that are between 29 and 35 percentage points higher than for firms that operate at fixed sites. Similarly, the probability of being informal is 8 percentage points higher for firms that operate at the owner’s home.

5.26 Overall, the findings of Cardenas and Rozo (2007) are consistent with the hypothesis that when deciding about the formality status of their business, microfirm owners are, to a large extent, driven by exit choices and not just by exclusion factors. Entrepreneurs who started their businesses coming from salaried work – as opposed to unemployment or inactivity – are more likely to formalize their firms, and so are those who have accumulated higher levels of physical and human capital. Formality is also more prevalent among those firms that have survived the high mortality rates that characterize the initial years of small businesses (in both industrialized and developing countries); and among those whose performance has warranted the hiring of additional paid workers.

5.27 These findings suggest that, as in other Latin American countries, the high levels of microfirm informality in Colombia are, to some extent, driven by the low opportunity costs of entry into the self-employment sector. These costs, driven in turn by the productivity of formal sector firms and by the human and physical capital of Colombian workers, would lead a large number of workers to trade salaried employment for the alternative of running low-productivity businesses. Given the small scale of their firms, their low growth prospects, and high failure rates, those entrepreneurs would find it optimal to remain informal. In order to reduce informality in this context, policymakers should focus not only on altering the direct costs and benefits of formality, but also on the drivers of productivity, including measures to improve the investment climate and policies aimed at increasing human capital accumulation.

5.28 In addition to these factors, the high levels of microfirm informality could also be driven by policy-induced barriers to the formalization of small businesses, including regulations that reduce productivity in the formal sector; and that impede microfirms’ access to technologies and markets. If important, these barriers could help keep most microfirms small and unproductive, and thus perpetuate a vicious circle of low firm growth and high informality. We explore the evidence for this hypothesis in the next section.

The Role of the Business Environment: Aggregate Evidence

5.29 There is considerable evidence that the varying incidence of informality across countries with similar per capita incomes is significantly linked to the nature of business regulations and the quality of governance. Loayza (1996) has shown that, in the Latin American context, informality is positively associated with levels of taxation and labor market regulations, and negatively correlated with the strength and efficiency of government institutions. These findings have been echoed in various studies based on large global cross-country samples. Djankov et al (2002) and Botero et al (2003), for example, have found that the informal sector tends to be larger in countries with more burdensome firm entry regulations and more rigid employment and industrial relations laws. In a dynamic framework, Loayza et al (2006) have shown that long-run informality is negatively and robustly related to the flexibility of business regulations, the value of public services associated with law and order, and the capacity of governments to monitor and enforce formal taxes and regulations.

5.30 In addition, the cross-country evidence suggests that not only the quantity but also the quality of regulations matter for explaining informality levels, which are significantly affected by measures of governance and institutional quality. In countries with better quality of governance, regulations are more likely to be driven by valid social goals, as opposed to the interests of particular groups, and their enforcement is likely more transparent and less discretionary. In contrast, where corruption is high, and democracy or the rule of law is weak, increasing the quantity of regulations is likely to stimulate informality. Confirming these hypotheses, Loayza et al (2005) find that labor and product-market
regulations are positively related to the size of the informal sector, but only for countries below a certain level of governance quality. Colombia, and for that matter most Latin American countries, are located below that threshold. It is thus not surprising that in recent focus groups interviews conducted with formal firms in Bogota and Medellin, the level of fiscal and regulatory burdens emerged as the number one determinant of informality in the country.

Table 5.2: Cross-Country Determinants of Informality

<table>
<thead>
<tr>
<th></th>
<th>Schneider Shadow Heritage Foundation</th>
<th>Informal Market Self Employment</th>
<th>No Pension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law and Order (index from ICRG, range 0-6: higher, better; country average)</td>
<td>-0.1069*** -0.1530***</td>
<td>-2.3941*** -3.4748*</td>
<td>-3.23 -3.30 -3.52 -1.88</td>
</tr>
<tr>
<td>Business Regulatory Freedom (index from Economic Freedom of the World by The Fraser Institute, range 0-10: higher, less regulated; country average)</td>
<td>-0.1020*** -0.4884***</td>
<td>-2.1587*** -5.8250**</td>
<td>-2.72 -9.21 -2.62 -2.16</td>
</tr>
<tr>
<td>Average Years of Secondary Schooling (from Barro and Lee (2001); country average)</td>
<td>-0.0858** -0.1761***</td>
<td>-1.7743** -5.1117***</td>
<td>-1.92 -3.87 -2.26 -2.96</td>
</tr>
<tr>
<td>Sociodemographic Factors (simple average of share of youth (aged 10-24) population, share of rural population, and share of agriculture in GDP; country average)</td>
<td>0.1459** 0.3127***</td>
<td>3.3082* 19.1452***</td>
<td>2.27 4.38 2.44 6.69</td>
</tr>
<tr>
<td>Constant</td>
<td>4.5612*** 6.5817***</td>
<td>51.3973*** 111.2550***</td>
<td>25.03 32.20 11.16 11.35</td>
</tr>
</tbody>
</table>

No. of observations 74 77 42 67
R-squared 0.74 0.93 0.85 0.89

Notes: (1) Method of estimation: Ordinary Least Squares with Robust Standard Errors. (2) Dependent variable: Four types of informality measures (country averages). (3) t-statistics are presented below the corresponding coefficients. (4) *, ** and *** denote significance at the 10 percent, 5 percent and 1 percent levels, respectively. (5) Periods used to compute country averages vary by informality measure. (6) A dummy variable is also included in regression [1] for Indonesia, China, India or Paraguay and in regression [4] for Greece. The dummy variable controls for anomalous cases. Source: Loayza (2007).

5.31 Econometric estimates of the impact on informality of some of the factors highlighted above can be used to quantitatively assess the relative importance of each factor in specific country contexts. One can first estimate the effects on informality of proxies for some of its main potential causes. Then, by multiplying the estimated coefficients by the differences across countries in the averages of the corresponding variables, it is possible to decompose cross-country informality differences in fractions attributable to selected business environment factors.

5.32 We perform such an exercise using Loayza (2007)’s cross-country estimates of the effect of the following variables on various measures of informality: (i) an index on the prevalence of law and order – obtained from The International Country Risk Guide – to proxy for the quality of governance and institutions; (ii) an index of business regulatory freedom – taken from the Fraser Foundation’s Economic Freedom of the World Report – to proxy for the quantity of regulations imposed on businesses; (iii) the average years of secondary schooling of the adult population – taken from Barro and Lee (2001) – to control for the human capital of the labor force; and (iv) an index of socio-demographic factors – constructed from the World Bank’s World Development Indicators, the ILO, and the United Nations –
which includes the share of agriculture in GDP, the share of youth in the population and the share of rural population.

Figure 5.11: Differences between Predicted and Actual Informality

![Graph showing differences between predicted and actual informality](image)

Source: Authors’ calculations, based on estimates by Loayza (2007).

5.33 The dependent variables are the four informality measures presented in Figures 5.1 to 5.3: Schneider’s (2007) estimate of the shadow economy as a share of GDP, the Heritage Foundation’s informal market index, the rate of self employment compiled by the ILO, and the share of the workforce that lacks pension coverage, as estimated in the World Bank’s *World Development Indicators*. As shown in Table 5.2, the impact on informality of the four main explanatory variables described above is remarkably robust across informality measures, with all regression coefficients having the expected sign and being highly significant. Thus, informality decreases when law and order, business regulatory freedom, or schooling achievement rise, as well as when the share of agriculture and the demographic pressures from youth and rural populations decline. These four explanatory variables account jointly for between 74 percent and 93 percent of the cross-country variation in informality.

5.34 In the specific case of Colombia, the model predicts quite well the level of the four measures of informality used in the analysis, with ratios of predicted to actual values varying from 85 percent for the share of workers without pension coverage, to 107 percent for the self-employment rate. It also predicts, respectively, 93 and 100 percent of the actual values of the Heritage Foundation and Schneider indexes. These ratios are reported in Figure 5.11, which also shows the fraction of the differences in informality between Colombia and Chile, and between Colombia and the U.S. that are explained by the model. With only one exception, for self-employment rates in the comparisons with Chile, the model explains, on average, 87 percent of the observed differences, after excluding the self-employment comparison with Chile.

Figure 5.12: Explanation of Differences between Predicted Informality in Colombia and Chile

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73 This index captures the countries’ general level of development and is expected to be positively related to informality for the following reasons. In particular, legal protection and formal contract enforcement are likely to be less relevant and valuable to agricultural activities, in comparison to the more complex processes of industry. Second, larger shares of youth or rural populations are likely to make government monitoring and service provision more difficult and expensive.

74 This large difference is due to the fact that the model over-predicts Colombia’s rate by 7 percent and it under-predicts Chile’s by 29 percent: whereas about 20 percent of Chilean workers are self-employed, the model predicts a rate of almost 29 percent. In the case of Colombia the actual and predicted rates are respectively 33.3 percent and 35.7 percent.
The relative importance of the four main explanatory variables used in Loayza’s (2007) model are illustrated in Figures 5.12 and 5.13. They show that the proxies for the quality of governance (specifically, the Law and Order index constructed by ICRG), and the size of the regulatory burdens carried by firms (the Fraser Foundation’s index of business regulatory freedom), are the most important factors explaining the differences in predicted informality rates between Colombia and, respectively, Chile and the United States. Governance and regulations explain between 80 and 90 percent of the differences with Chile, and about two thirds of the differences with the U.S. in Schneider’s informality index, the Heritage Foundation index, and the self-employment rate. Those two variables also explain, respectively, 63 and 43 percent of the differences with Chile and the U.S. in the share of the workforce that lacks pension coverage.

As for the other two main explanatory variables used in the estimation, the level of education of the labor force plays virtually no role in the comparisons with Chile, but it explains almost one fourth of the differences in informality between Colombia and the U.S. Finally, socio-demographics explain about 10 percent of the differences in the Schneider and Heritage Foundation indexes, with respect to both Chile and the U.S.; about 20 percent of the differences in self-employment rates; and one third (39 percent in the case of the U.S.) of the higher percentage of workers without pension coverage found in Colombia.
Overall, these results suggest that improving the quality of governance, together with reducing excessive regulatory burdens on business, could go a long way toward reducing informality in Colombia.

**Evidence from Doing Business**

5.37 The World Bank’s *Doing Business in 2008* (World Bank, 2008) publication ranks Colombia 66th out of 178 countries (Figure 5.14) in terms of barriers to doing business. This places Colombia behind the United States (3), Chile (33), Mexico (44) and Peru (58), but ahead of Argentina (109) and Brazil (122). Some of the components of the global *Doing Business* index are directly related to factors that firms may consider in their cost-benefit analysis regarding their degree of formalization – e.g., the time and costs involved in starting and closing a business, hiring workers, paying taxes, dealing with licenses, enforcing contracts, and obtaining credit. Other factors, such as the degree of investor protection and the cost of trading across borders, may affect informality indirectly through their impact on formal sector productivity.

5.38 With regard to the *Doing Business* indicators on procedures for starting a business, dealing with licenses, employing workers, registering property, and getting credit, Colombia’s performance is not significantly different than the general Ease of Doing Business index. Thus, the country appears to be in the middle of the group of medium and large Latin American countries (Figure 5.14). A better than average performance is apparent, however, in the area of investor protection and with regard to the time and cost needed for closing a business, where Colombia ranks, respectively, 19th and 27th among all economies surveyed by *Doing Business* (Figure 5.15). In fact, with respect to the latter indicator, Colombia’s performance in terms of costs – around one percent of per capita income – is comparable to that of Japan, which is the benchmark country for this indicator.
On the other hand, despite recent reforms, *Doing Business* identifies important constraints to business development in the following areas: paying taxes, enforcing contracts, and trading across borders (Figure 5.15). The indicators for the first area are related to the number of tax payments that businesses need to make, the time required for tax compliance, and the total tax payable by companies – respectively, 69 payments, 269 hours, and 82 percent of profits. In this area, Colombia ranks 167th among the 178 economies surveyed, which is only a slight improvement from 2007, when it ranked 175th. It must be noted, however, that during the past year, Colombia introduced an electronic tax filing system which cut the average time businesses must spend on tax compliance each year by 188 hours, or 41 percent. Moreover, Colombia is progressively reducing the corporate income tax rate, from 35 to 34 percent in 2006 and 33 percent in 2007.

5.40 With regard to the cost, time and number of procedures required for enforcing contracts, Colombia ranks 147th in the world. In order to resolve a typical commercial dispute, businesses need to perform 34 procedures over a period of 1346 days, at a cost of more than 50 percent of the claim. This compares to 20 procedures in Ireland, 120 days in Singapore, and 9.4 percent of the claim in the United States. Finally, despite having made great strides in easing trade, which led Colombia’s rank to fall from 141th to 105th in the corresponding *Doing Business* indicators, importing and exporting are still relatively time consuming and expensive in Colombia. Even though the country managed to reduce the time needed for port and
terminal handling activities by three days – by extending port operating hours and adopting more selective customs inspections – about three weeks are still required for importing and exporting, compared to less than one week in the United States. Similarly, while the total fees per container exported or imported have also been reduced during the past year – from US$1,745 to US$1,440 – they are still more than three times as high as the fees in China and Singapore.

**Firm-Level Evidence**

5.41 Additional evidence on the relevance of the business environment to firm informality in Colombia – specifically, the rates of tax and social security evasion – can be derived from the firm-level data collected through the World Bank’s Enterprise Surveys. As illustrated in Table 5.3, the incidence of corruption is positively and significantly related to firm informality. Companies that report bribery of government officials as a common practice in their line of business exhibit rates of revenue and worker underreporting between three and four percentage points larger than those of other firms. Possible explanations for this result are that firms underreport some of their activities (sales and workers) in order to hide them from corrupt officials, or that bribes are a cost to be paid for remaining partially informal. A complementary explanation is that firms that view the government as corrupt may also place a lower value on the public goods it provides, and thus have lower incentives for contributing to its financing.

5.42 The results in Table 5.3 also indicate that firms that report being significantly affected by labor regulations in their hiring and firing decisions evade a higher fraction of taxes and/or social security contributions – about seven percentage points more in the case of Colombia. Moreover, at least in the pooled sample that includes Colombia and six other Latin American countries, firms that operate in sectors and regions where the use of third-party contract enforcement mechanisms is more frequent, have lower tax and social security evasion rates. Finally, in both the Colombian and the pooled samples, companies that sell mainly to firms with more than 100 employees exhibit rates of underreporting that are between three and four percentage points lower. This suggests that where market support mechanisms and linkages between small and large firms are better developed, informality tends to be lower.

Table 5.3: Firm Level Correlates of Tax and Social Security Evasion

<table>
<thead>
<tr>
<th></th>
<th>Colombia</th>
<th>Pooled Sample</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unreported Sales</td>
<td>Unreported Employment</td>
<td>Unreported Sales</td>
<td>Unreported Employment</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
<td>(6)</td>
<td>(15)</td>
<td>(16)</td>
</tr>
<tr>
<td>Corruption Dummy</td>
<td>3.119</td>
<td>4.784</td>
<td>4.832</td>
<td>4.835</td>
</tr>
<tr>
<td></td>
<td>(0.184)</td>
<td>(0.043)**</td>
<td>(0.000)**</td>
<td>(0.000)**</td>
</tr>
<tr>
<td>Labor regulations Dummy</td>
<td>6.771</td>
<td>7.607</td>
<td>1.937</td>
<td>3.196</td>
</tr>
<tr>
<td></td>
<td>(0.005)**</td>
<td>(0.002)*****</td>
<td>(0.062)**</td>
<td>(0.002)**</td>
</tr>
<tr>
<td>Tax Inspections (avg. #)</td>
<td>-0.209</td>
<td>-0.094</td>
<td>0.050</td>
<td>0.022</td>
</tr>
<tr>
<td></td>
<td>(0.196)</td>
<td>(0.564)</td>
<td>(0.237)</td>
<td>(0.608)</td>
</tr>
<tr>
<td>Contract Enforc. (avg. %)</td>
<td>-0.019</td>
<td>0.128</td>
<td>-0.119</td>
<td>-0.072</td>
</tr>
<tr>
<td></td>
<td>(0.890)</td>
<td>(0.356)</td>
<td>(0.009)**</td>
<td>(0.122)</td>
</tr>
<tr>
<td>Large Clients Dummy</td>
<td>-3.927</td>
<td>-3.719</td>
<td>-2.814</td>
<td>-2.709</td>
</tr>
<tr>
<td></td>
<td>(0.053)*</td>
<td>(0.069)*</td>
<td>(0.004)**</td>
<td>(0.006)**</td>
</tr>
<tr>
<td>Bank Loans (% of firms)</td>
<td>1.679</td>
<td>5.503</td>
<td>-0.594</td>
<td>-4.351</td>
</tr>
<tr>
<td></td>
<td>(0.916)</td>
<td>(0.732)</td>
<td>(0.904)</td>
<td>(0.383)</td>
</tr>
<tr>
<td>Observations</td>
<td>833</td>
<td>833</td>
<td>4278</td>
<td>4278</td>
</tr>
<tr>
<td>Correl. Residuals (p.val. Indep. test)</td>
<td>0.64 (0.00)</td>
<td>0.58 (0.00)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Firm size, time in business, labor productivity, formality status at time of starting up, sector and location are also controlled for. Estimation performed using seemingly unrelated regressions. Pooled sample includes Argentina, Bolivia, Colombia, Mexico, Panama, Peru and Uruguay. Source: Perry et al. (2007).

**Evidence on the Impact of Simplified Business Registration**
Recent papers have estimated the impact of specific reform programs aimed at simplifying and expediting the process of firm registration. Thus, Kaplan et al (2006) and Bruhn (2007) have analyzed the effect of a Mexican program, which allows for firm registration to be completed in three days. Kaplan et al (2006) finds that the program led to an increase of between 4 and 8 percent in the flow of new registered firms. Bruhn (2006), on the other hand, finds that the program increased the fraction of registered businesses – the stock – by 5.6 percent.

In the case of Colombia, Cardenas and Rozo (2007) have evaluated the impact of the Centros de Atención Empresarial (CAEs) program implemented by the Chambers of Commerce of six Colombian cities between 2000 and 2004. This program greatly simplified the procedures (from 45 to 2 pre-requisites and documents), and reduced the time (from 55 to fewer than 9 days) for registering a business in the corresponding cities. Cardenas and Rozo (2007) apply the same estimation technique employed by Bruhn (2007), which takes advantage of the fact that the CAEs were implemented at different times across the various cities, which makes it possible to compare registration rates between cities with and without CAEs, before and after program implementation.

Cardenas and Rozo (2007) find that the implementation of the CAEs led to an average increase of 5.2 percent in the number of firms registered, after controlling for city and country-level GDP, as well as for other time and city effects. These results are quantitatively similar to those obtained by Kaplan et al (2006) for Mexico. They suggest that administrative simplification programs, including internet-based technologies and one-stop shops, aimed at reducing the transaction costs associated with operating legitimate businesses, can be effective in tilting at least a fraction of small firms toward formalization.

Consequences of Informality

While informality is usually linked to low economic growth, rigorously assessing this relationship is not straightforward. Loayza et al (2005) find a negative, although weak, correlation between the level of informality and growth. They do not find a causal relation between them, nor discard the possibility that a third variable may cause both of them. Using a pooled sample for Latin America, Perry et al (2007) do not find a statistically significant relationship between growth and informality, but the authors acknowledge that it is difficult to disentangle the effects of informality from other variables.

From a theoretical point of view, there are several potential mechanisms through which informality can have negative effects on firm productivity. These can be grouped under five general categories – size of firms, incentives to innovate, tax evasion, unfair competition, and rule of law and governance. Informality is associated with very small firms whose limited access to medium and long-term finance and to the rapidly expanding global market prevents them from realizing their full potential in terms of productivity or competitiveness. Many of them remain small to avoid enforcement, high collateral, and interest costs on longer-term financing necessary for investment in better technology and equipment – one of the key drivers of productivity. Low levels of innovation and technology absorption may also emerge due to the absence of focus on longer-term relationships with stakeholders. In the absence of formal labor contracts, for instance, informal firms usually maintain frail relations with their employees, restraining mutual incentives to increase human capital and hence productivity.

Another potential transmission mechanism relating informality and productivity is through tax erosion. High levels of informality erode the tax base and reduce funding for critical investments in public services and infrastructure. Non-compliance with business regulations and non-payment of taxes is facilitated by lack of public participation and knowledge of how public expenditures are financed and allocated. The hiding of enterprises from the official administration increases informational asymmetries; fosters knowledge gaps that hinder business planning, trade, and investment; and limits access to formal markets at home and abroad (World Bank 2007b).
5.49 With regard to the issue of unfair competition, Perry et al (2007) point out that firms that are insufficiently competitive, and in other circumstances would be forced to withdraw from the market, can remain active in the informal sector. This outcome slows down the flow of human and capital resources to more dynamic and productive sectors, triggering a low-productivity trap. Lastly, a high level of informality undermines the rule of law and governance. The fact that such a large share of the population is openly ignoring laws, regulations, and taxes weakens the respect citizens have for the State. Informality also promotes corruption, since informal firms need to pay off officials to avoid fines and business closure, or to access services intended for formal firms.

Evidence for Colombian Microfirms

5.50 We explore two data sets to assess the impacts of informality at the firm level in Colombia. The first one is the “123” survey, which focuses on microfirms and allows for the comparison of formal and informal firms. The second dataset is the Enterprise Survey conducted by the World Bank in 2006 with about 1,000 formal enterprises of different sizes. The latter survey permits us to investigate productivity determinants. \(^{75}\) We also use the results of a qualitative survey conducted for this report with 100 formal firms in Bogota and Medellin to support the analysis.

### Table 5.4: Access to Credit among Formal and Informal Microfirms

<table>
<thead>
<tr>
<th>Question</th>
<th>Formal</th>
<th>Informal</th>
<th>Difference (Formal - Informal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Have you requested loans?</td>
<td>21.1%</td>
<td>16.5%</td>
<td>-4.55%***</td>
</tr>
<tr>
<td>2) If not, what is the main reason?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional capital not necessary</td>
<td>38.1%</td>
<td>42.2%</td>
<td>4.06%***</td>
</tr>
<tr>
<td>Does not know how to proceed with request</td>
<td>3.7%</td>
<td>5.9%</td>
<td>2.21%**</td>
</tr>
<tr>
<td>Too many procedures</td>
<td>13.1%</td>
<td>15.3%</td>
<td>2.24%*</td>
</tr>
<tr>
<td>High rates</td>
<td>15.5%</td>
<td>17.1%</td>
<td>3.16%**</td>
</tr>
<tr>
<td>Lack of friends</td>
<td>5.3%</td>
<td>5.5%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Short maturing</td>
<td>0.6%</td>
<td>1.5%</td>
<td>0.7%</td>
</tr>
<tr>
<td>3) Who have you requested the credit?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banks</td>
<td>45.0%</td>
<td>30.7%</td>
<td>-14.22%***</td>
</tr>
<tr>
<td>Cooperatives</td>
<td>17.4%</td>
<td>21.3%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Lenders</td>
<td>28.1%</td>
<td>34.4%</td>
<td>6.31%**</td>
</tr>
<tr>
<td>Relatives and friends</td>
<td>15.0%</td>
<td>27.1%</td>
<td>12.04%***</td>
</tr>
<tr>
<td>4) Credit disbursement (given request)</td>
<td>89.2%</td>
<td>68.5%</td>
<td>-20.69%**</td>
</tr>
</tbody>
</table>

Source: Cardenas and Rozo (2007) on the basis of data from the “123” survey.

5.51 This section, based on Cardenas and Rozo (2007), applies the propensity score-matching method to compare informal establishments with formal ones. A two-step procedure is adopted: first, the probability of being informal is estimated to match the observations; subsequently, we proceed to assess the effect of informality on each variable of interest, utilizing the Kernel method of pairing.

### Table 5.5: Consequences of Informality on Access to Training

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\(^{75}\) Details about the methodology of these surveys can be found in the annex.
Access to credit is widely recognized as a key element for firms to develop and grow. The 123 survey asks several questions on this subject, including questions on the cost of credit, financial problems faced by firms, and lack of capital. Table 5.4 reports the differences between formal and informal firms’ responses to these questions. The results show that informal firms face more obstacles to gaining access to credit, and that the differences for the other dimensions are not statistically significant.

Table 5.6: Consequences of Informality on Issues Related to Machinery and Equipment, Sales and Government Controls

<table>
<thead>
<tr>
<th>Area</th>
<th>Problem</th>
<th>Formal</th>
<th>Informal</th>
<th>Difference (Formal - Informal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machinery and equipment</td>
<td>High costs</td>
<td>72.0%</td>
<td>70.8%</td>
<td>-1.2%</td>
</tr>
<tr>
<td></td>
<td>Deficient technical support</td>
<td>19.4%</td>
<td>27.7%</td>
<td>8.3%**</td>
</tr>
<tr>
<td></td>
<td>Lack of information</td>
<td>24.3%</td>
<td>13.8%</td>
<td>-1.0%</td>
</tr>
<tr>
<td>Product commercialization</td>
<td>Commercialization</td>
<td>44.5%</td>
<td>40.1%</td>
<td>-4.4%**</td>
</tr>
<tr>
<td></td>
<td>Low customer turnout</td>
<td>64.8%</td>
<td>70.7%</td>
<td>5.8%***</td>
</tr>
<tr>
<td></td>
<td>Non-Payments</td>
<td>29.5%</td>
<td>29.0%</td>
<td>-0.5%</td>
</tr>
<tr>
<td></td>
<td>Competition</td>
<td>66.7%</td>
<td>61.3%</td>
<td>-5.3%**</td>
</tr>
<tr>
<td></td>
<td>Cancellations</td>
<td>6.3%</td>
<td>6.9%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Control and regulation</td>
<td>Legal demands</td>
<td>30.3%</td>
<td>38.0%</td>
<td>7.7%</td>
</tr>
<tr>
<td></td>
<td>Excessive control</td>
<td>73.4%</td>
<td>62.8%</td>
<td>6.5%**</td>
</tr>
<tr>
<td></td>
<td>Permanent expulsion</td>
<td>2.2%</td>
<td>9.1%</td>
<td>6.9%***</td>
</tr>
</tbody>
</table>

Source: Cardenas and Rozo (2007) on the basis of data from the “123” survey.

5.53 One of the costs of informality for firms is not having access to services provided by the public sector. The results in Table 5.5 tend to support this view, showing that informal businesses receive less training support than formal ones. They also demand less training and support. Although they may not ask because they anticipate not receiving this service from the state, one cannot rule out the lack of sufficient information about the benefits associated with training and managerial support.

76 The statistical significance was reached by using the bootstrapping method, which is valid for Kernel pairing, linear local, and inverse probability methods.
Table 5.6 summarizes the differences between formal and informal firms with regard to machinery and equipment, sales, and government controls. While informal firms have the advantage of being able to produce at lower cost, informality generates more costs than advantages in Colombia, as it limits access to credit, training, and capital goods, and is associated with more government controls.

Evidence from Enterprise Surveys

To assess the perception of formal firms with regard to the competition generated by informal firms, we focus next on two questions included in the Enterprise Survey: (a) do formal firms compete with informal establishments; and (b) does this imply an obstacle to growth of the formal firm’s activities.  

Figure 5.16: Percentage of Enterprises that Compete with Informal Firms

![Graph showing percentage of enterprises that compete with informal firms across different countries.]

Source: Cardenas and Rozo (2007).

Responses to both questions in Colombia, compared to seven other Latin American countries, are presented in figures 5.16 and 5.17. The first question is presented in panel (a) of the chart, showing that 57 percent of firms in Colombia compete with informal firms. While undoubtedly high, this figure is lower than in other countries, like Uruguay and Bolivia, where this proportion reaches 80 percent. Nonetheless, the results are less positive for Colombia when firms are asked about the impact this has on their growth prospects: no less than 83.2 percent of the firms that compete with informal activities perceive this competition as an obstacle for them. This figure is similar to the one observed in the other countries surveyed, with the exception of Panama and México. By the same token, the proportion of firms in Colombia that view competition with informal firms as the most severe obstacle to the expansion of their activities, is not only significant but also, at 19.8 percent, higher than the average for Latin America (Figure 5.18).

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77 The survey does not provide respondents with a definition of informality; responses reflect thus firms’ perceptions on what informality is.

78 Argentina, Bolivia, Colombia, Perú, Panamá, México, Uruguay and Paraguay.
5.57 Data from the Enterprise Survey allow us to characterize the firms that are more affected by competition with informal players. In order to do this, a probit was estimated using as a dependent variable a dummy equal to 1 if the firm sees competition with the informal sector as a severe obstacle, and equal to 0 if it is perceived only as a minor obstacle or is not seen as an obstacle. Independent variables include legal status, size and age of the firm, and experience of the owner.

5.58 Results show that the probability of considering competition from the informal sector as a serious obstacle tends to increase for smaller and younger firms with a less experienced owner. These results are robust to changes in the definition of the variables.\(^7^9\) When sector is added as independent variable, results show that the food, garment, textiles, and retail firms have a higher probability of facing competition from the informal sector.

5.59 In sum, the evidence suggests that in Colombia, formal businesses are strongly affected by the existence of a large informal sector. Younger and smaller formal firms, with less experience and operating in sectors such as food, garment, textiles, and retail, seem to be more affected. This conclusion is supported by qualitative interviews conducted in Bogota and Medellin, in which a strong sense of asymmetry emerged, with formal firms complaining about the regulatory and fiscal burden.

\(^{79}\) See Fedesarrollo (2007), page 20.
### Impact of Informality on the Productivity of Colombian Firms

5.60 Policy measures aimed at increasing formality have the potential to raise overall productivity, through both static and dynamic channels. As argued in Perry et al (2007), to the extent that informality is associated with a preponderance of small firms, and where returns to scale are constant or increasing, informality could lead to considerable efficiency losses. This concern, however, is minimized when informal firms are concentrated in goods and services that can be efficiently produced with labor-intensive technologies, and for which economies of scale are not significant. Another caveat to this argument is that, as shown by Almeida and Carneiro (2005) for the case of labor regulations, informality

<table>
<thead>
<tr>
<th>Blocks of IC variables</th>
<th>Explanatory ICA variables</th>
<th>Two steps estimation</th>
<th>Single step estimation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Solow residual</td>
<td>Cobb-Douglas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Restricted</td>
<td>Unrestricted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Days to clear customs to import (a)</td>
<td>-0.356***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Losses due to power outages (b)</td>
<td>-0.013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Average dur. of power outages (b)</td>
<td>-0.151*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wait for electricity supply (a)</td>
<td>-0.362***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water supply, public sources (b)</td>
<td>0.004***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shipment losses, import (a)</td>
<td>-0.039</td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
<td>Workforce reported to taxes (a)</td>
<td>0.012*</td>
</tr>
<tr>
<td>Governance: informality, corruption and crime</td>
<td>Dummy for conflicts in courts</td>
<td>0.183**</td>
<td>0.183**</td>
</tr>
<tr>
<td></td>
<td>Security cost (a)</td>
<td>0.172***</td>
<td>0.168***</td>
</tr>
<tr>
<td></td>
<td>Crime losses (a)</td>
<td>-0.069***</td>
<td>-0.065***</td>
</tr>
<tr>
<td></td>
<td>Payments to obtain a contract with the government (a)</td>
<td>-0.072***</td>
<td>-0.070***</td>
</tr>
<tr>
<td></td>
<td>Payms. to speed up bureaucracy (b)</td>
<td>-0.009</td>
<td>-0.009</td>
</tr>
<tr>
<td>Finance and corporate governance</td>
<td>Sales paid after delivery</td>
<td>-0.003**</td>
<td>-0.003**</td>
</tr>
<tr>
<td></td>
<td>Working capital: family/friends</td>
<td>-0.003</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td>Checking or saving account</td>
<td>0.231</td>
<td>0.22</td>
</tr>
<tr>
<td>Quality, innovation and labor skills</td>
<td>Dummy for quality certification (a)</td>
<td>0.401</td>
<td>0.487</td>
</tr>
<tr>
<td></td>
<td>Outsourcing (a)</td>
<td>0.007</td>
<td>0.007</td>
</tr>
<tr>
<td></td>
<td>Staff – university education (b)</td>
<td>0.719*</td>
<td>0.708*</td>
</tr>
<tr>
<td>Other control variables</td>
<td>Dummy for public capital</td>
<td>-0.24</td>
<td>-0.254*</td>
</tr>
<tr>
<td></td>
<td>Dummy for FDI</td>
<td>0.382</td>
<td>0.382</td>
</tr>
<tr>
<td></td>
<td>Dummy more 5 competitors</td>
<td>-0.027</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>Observations</td>
<td>570</td>
<td>570</td>
</tr>
<tr>
<td></td>
<td>R-squared</td>
<td>0.17</td>
<td>0.17</td>
</tr>
</tbody>
</table>

Notes: * significant at 10 percent; ** significant at 5 percent; *** significant at 1 percent. Each regression includes a set of industry dummies and a constant term. (a) Variables instrumented with the industry-region-size average. (b) Variables approximated with a proxy (only missing values replaced by the industry-region-size average). Source: Colombia ICS-2006; World Bank report *Inputs for Regional Competitiveness*. 

Impact of Informality on the Productivity of Colombian Firms
may allow firms a larger flexibility in their employment and production decisions, which, in turn, could lead them to operate more efficiently.

5.61 A separate concern is that informality could allow low-productivity firms to stay in business by compensating their higher production costs through the avoidance of taxes and/or social security contributions. This could slow down the creative destruction process, by which innovative, high-productivity firms expand to the detriment of less-productive ones, with negative effects on aggregate productivity. Moreover, the “unfair” competition by informal firms could reduce the incentives of formal companies to innovate and adopt new technologies – by reducing their market share and profitability – which could also reduce overall productivity growth. In this context, various studies performed by the McKinsey Global Institute suggest that informality accounts for around 50 percent of the productivity gap among countries like Turkey, Portugal, and the United States; and for 30 percent of the productivity gap between Brazil and the United States (see Farrell, 2004).\(^{80}\)

5.62 In theory, it is not clear which effect dominates, but empirical evidence for Colombia suggests that informality has significant negative effects on firm productivity. Indeed, as shown in World Bank (2007), Colombian firms that pay social security contributions for a larger fraction of their employees exhibit higher levels of total factor productivity. Moreover, firms that report a larger incidence of informal payments to government officials in their industries, either to gain access to government contracts or to speed up bureaucratic procedures, operate at lower levels of productivity. These estimates have been obtained using econometric techniques that control for the endogeneity of the above variables, and after controlling for a larger number of investment climate (IC) variables related to the areas of infrastructure, governance (including informality), finance, quality, innovation, and skills. The estimation was performed holding constant basic firm characteristics, including location, industry affiliation, firm size, and firm age. In addition to these negative effects, the elasticities and semi-elasticities reported in Table 5.7 indicate that IC variables related to all the above categories are statistically related to productivity. However, variables related to governance (informality, corruption, and crime) and to infrastructure present the higher relative impacts on productivity.

Conclusions

5.63 In this chapter we turned our attention to some characteristics of informality among firms in Colombia. Using several databases, we analyzed various potential determinants of informality among firms, as well as illustrated some of the consequences that informality brings to firm performance. An important caveat refers to the methodological challenges associated with distinguishing between the negative impacts that informality has on productivity from causal effects that operate in the opposite direction.

5.64 As in the analysis of informality among individuals, informality among firms is a complex phenomenon, involving both exit and exclusion. It has negative consequences in terms of fiscal revenues, productivity, and access to markets. On the other hand, for many small firms, informality operates as a transition stage before their entrance into formal markets. Moreover, informal firms do generate minimum levels of income for a significant number of workers.

5.65 To a certain extent, firms can choose their degree of formality, weighing the cost reductions associated with tax and social security evasion against the risk of being caught by regulators, and against the possible negative effects that informality may have on their ability to widen their markets and hire

\(^{80}\) See also Elstrodt, Lenero, and Urdapilleta (2002), Capp, Elstrodt, and Jones (2005), Kenyon and Kapaz (2005), and Palmade (2005).
high-productivity workers. Firms may thus opportunistically choose to evade a fraction of their taxes and social security contributions. This opportunistic behavior is likely to be even more prevalent when there is a collective view that tax and social security resources are being poorly used and, more generally, when the State’s actions are perceived to be ineffective, unfair, and/or illegitimate. This situation can give rise to a social norm of regulatory non-compliance – a so-called “culture of informality” – which can further reduce the State’s effectiveness and its ability to enforce the law.

5.66 In this context, policy interventions aimed at reducing evasion – i.e., informality among formal firms – are likely to require both costs and incentives. By increasing the costs of informality (by, for example, increasing enforcement) and/or the benefits of formalization, policies can induce firms to abandon informality. However, the impacts on firms will likely depend on the depth of informality – firms at the fringe may react favorably to incentives, while firms that are highly informal may react only to more profound changes in legislation and/or enforcement. These actions may need to be complemented by reforms aimed at improving the quality of governance and institutions in general, as well as the quality and relevance of services, in order to promote a positive perception of the services produced using social security resources. Whereas this is certainly a complex and long-term agenda – and this is not the right context to address it in detail – it is a critical one for maximizing the impact of improved enforcement on firms’ levels of regulatory compliance. Chapter 6 presents a series of policy recommendations.

Introduction

6.1 This chapter focuses on how public policies affecting (in)formality can increase worker welfare and improve firm-level productivity in the face of high and persistent informality in Colombia. The chapter examines three main areas of policy highlighted in the report:
- Enhancing workers’ welfare – through stronger human capital, improved access to labor markets, and greater access to social protection programs – while minimizing unnecessary incentives for labor informality;
- Increasing productivity through measures to promote firm formalization and development; and
- Strengthening institutional and enforcement capacity for greater incentives for formalization and greater compliance with regulations.

6.2 The policy proposals presented here are consistent with the country’s long-term commitment to strengthening the business environment, improving economic productivity and growth, improving welfare, and reducing poverty. They build on the evidence and analysis presented earlier in the report, as well as on the very rich dialogue that has taken place over the last year between World Bank staff, Government of Colombia counterparts, and Colombian policy researchers, as part of the study process. The proposals also draw on the key lessons learned from the recent World Bank flagship report on informality in Latin America and the Caribbean (Perry et al 2007); a second World Bank regional report on social protection in Latin America; and on the experiences of policymakers in other parts of Latin America and in the OECD.

6.3 The proposals are intended less as a specific blueprint for Government action than as the basis for an expansive dialogue on informality and public policy that will help identify the most appropriate and effective way forward. Also, while there are a number of long-term challenges to increasing worker welfare and firm productivity, this section focuses largely on the short and medium term actions that could put the Country on the path to these deeper reforms. The proposed policy actions belong to a number of areas – labor markets, firm regulation, taxation, service delivery, etc. – and do not pretend to present a complete agenda for reform in any of these areas. Rather, the section focuses on policies actions that can have an impact on informality, and, through this, on worker welfare and firm productivity.

Enhancing workers’ welfare through stronger human capital, improved access to labor markets, and greater access to social protection programs

6.4 While there are a number of reasons why people work in the informal rather than the formal sector, the evidence shows that several aspects of Colombia’s social policies can be harnessed to address the country’s high and persistent inequality. This study groups these elements into three categories, further discussed in this chapter, including:
- The overall low level of education and skills of workers, as well as broader barriers to access the formal labor market, which call for broad reforms to the education and training sectors, as well as the establishment of integral labor intermediation services.
- Some aspects of the design of social protection programs that increase their costs and/or reduce their benefits for formal sector workers, creating incentives for informality. This includes the bundling of multiple benefits, the requirement that secondary workers pay for some of the benefits they already receive as dependants, long vesting periods for pensions and other rigid program features that do not account for labor mobility across jobs and sectors.
- The segmentation of labor markets resulting partly from high minimum wage and non-wage costs of formal labor (payroll taxes and parafiscales), which reduces formal sector employment.
6.5 Several of these factors interact and mutually reinforce one another. For example, the use of non-contributory programs as a vehicle for expanding coverage has required additional public resources. Increases in taxes to finance these can in turn create further disincentives for formal employment. Similarly, low efficiency in the delivery of social protection services can drive people and firms further into informality, resulting in higher costs. The result has been a kind of a vicious circle in the labor market, in which high labor costs induce high informality, which in turn has increased pressure for higher taxes, leading in turn to greater incentives for informality (Santa Maria et al 2008). In addition, high costs of formality have meant that formal sector job creation has not been particularly dynamic in periods of growth, even though formal salaried job destruction appears to be significant during economic downturns (Santa Maria et al 2008).

Strengthening Young Workers’ Human Capital and Facilitating Greater Access to Formal Sector Job Opportunities

6.6 Given the strong association between education and formal employment, an important set of actions the Government can take is to improve access to quality education at the secondary and tertiary levels. This is clearly an important medium-to-long term policy goal, not only in the context of informality, but also for the success of the Government’s broader development agenda (and these go beyond the scope of this report). At the same time, for young people who have already exited the formal education system, the Government could provide better opportunities for them to acquire or strengthen technical and marketable skills, via job training, employment services, and improved access to lifelong learning opportunities.

6.7 International evidence on skills training is mixed, but some approaches have shown promise in Latin America. For example, Betcherman, Olivas, and Dar (2004), Cunningham et al (2008), as well as Sanchez-Puerta (2008), find that youth training programs have often had positive impacts on their employment prospects in Latin America. Evidence from several countries in Latin America, including Argentina, Chile, Peru, and Uruguay, shows that these Jóvenes-type programs can be beneficial in terms of both employment and earnings. Jóvenes programs tend to be decentralized and demand-driven training programs that offer poor young people a comprehensive package of workplace internships, preceded by training in both professional and life skills. The evidence indicates that the technical training component is important, but it also highlights that to be effective, the training needs to be closely linked to the labor market’s demand for skills. Moreover, it appears that technical training is more effective when the training market functions competitively and in a decentralized way.

6.8 Kruger et al (2008) recently evaluated the impact of Colombia’s Jóvenes en Acción program, and found that the program was successful in increasing participants’ earnings and employment. Larger effects were found for women than for men. Women offered training were found to earn about 18 percent more than those who were not offered training, while men offered training were found to earn about 8 percent more than men who were not offered training. Much of these earnings increases for both men and women appear to have been related to increased employment in formal sector jobs following training. The benefits of training were found to be greater when individuals spent more time doing on-the-job training.81

81 Concerns have been raised recently in Colombia that the Jóvenes en Acción has become less effective subsequent to the impact evaluation. SENA currently administers the program, and one possibility is SENA’s management of the program has been accompanied by reduced decentralization and low levels of interaction with the private sector, features that appear to have been associated with the program’s early success. Further investigation is warranted in this regard.
6.9 Literature on active labor market programs suggests that comprehensive programs that provide training as part of a broader package that includes basic education, employment services, and social services are often more successful than those that provide training alone (Betcherman, Olivas, and Dar 2004; Sanchez-Puerta 2008). In that context, a promising example appears to be Entra 21, a global initiative working to prepare 19,332 disadvantaged youth in 18 Latin American countries for jobs requiring information and communication technology. The programs offer a complete range of services, including not just technical and life-skills training but also job placement services, internships, and advice in developing self-employment initiatives. While there are as yet no formal impact evaluation results, monitoring efforts linked to the program suggest that Entra 21 has been successful in placing at least 40 percent of targeted youth in jobs. A meta-analysis of six Entra 21 projects revealed a higher-than-expected job placement rate among 2,890 youths. Employment rates rose from 15 percent at the start to 54 percent 6–12 months later. Most jobs were in the formal sector, permanent, and paid the minimum wage or higher. These programs, thus, appear to provide an important link between skills and training (formación), on one hand, and labor market outcomes (incerción laboral), on the other. Continued monitoring and a formal impact evaluation are warranted to validate what appears to be a promising programmatic approach.

6.10 While strengthening the human capital of young workers is clearly important, might there be other, more direct interventions that can help workers’ – especially younger workers – access to formal employment? The experience of partial reforms in Spain and France argues for caution (Box 6.1). So does the broader literature on active labor market policies, which suggests that while programs to reduce costs of specific workers may sound attractive, they may not produce employment benefits, due the deadweight losses, displacement, and employment substitution effects they can generate (Mason et al 2007). One type of program that merits further consideration may be Colombia’s apprenticeship program, regulated under the 2002 labor reform. Recent results monitoring suggests that recent efforts to expand the program have been associated with increased youth employment in formal jobs. While the approach seems promising, it would be important to undertake more rigorous assessment of the program’s impacts before embarking on a large-scale expansion, both to clarify the causal links between the program and youth employment, and to better understand the cost-effectiveness of the program.

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Box 6.1: Reforming Part of the Labor Market Is No Substitute for Comprehensive Reform in Spain and France

Spain and France have suffered from high unemployment among youth over the last two decades. Both governments have experimented with partial labor market reforms as a means to reduce the youth unemployment problem.

In Spain, the initial reform in the early 1990s was intended to increase employment flows among youth by making it less costly for firms to hire young worker. Lowering the firing costs for entry level jobs without changing the costs for regular jobs may have increased firms’ willingness to hire new workers but also made them reluctant to retain

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82 Increasing the information available to youth about job opportunities appears to be of particular importance, given the role that informal networks play in transmitting information in LAC. Evidence from Argentina and Venezuela shows that employment services targeted to youth have improved the job search situation for young people, including greater use of the internet, institutional networking to enhance labor market information systems, and more interaction with employers (Jaramillo, 2006).


84 Colombia’s own experience with the Programa de Apoyo Directo al Empleo (PADE) suggests that while such programs may sound promising in principle, they may not live up to expectations in reality, due to other factors affecting workers’ and employers’ choices in the labor market, such as the broader labor market policy environment, among other things.
these workers. The result of this policy was systematic rise in the use of temporary contracts for young workers, without an increase in permanent and stable employment. Over 30 percent of employment became temporary, while unemployment remained as high as 24 percent. Following this experience, in 1997, Spain undertook a broader set of reforms. Policies included reductions in payroll taxes and dismissal costs, and proved to be effective in reducing overall unemployment, particularly for the young. Youth unemployment decreased from about 40 percent in 1995 to 20 percent in 2000.

In France, youth unemployment rate have remained above 20 percent since the 1990s. In 2006, the government proposed a contract for first employment (Contract premier Embauche) that would have allowed employers to fire workers under 26 within a two-year trial period without giving reason. It was hoped that employers would be more likely to recruit young people if they knew they could be fired readily and that this would reduce youth unemployment. Students, with the support of workers’ union and opposition parties, demonstrated against the new law and forced a showdown with the government leading to the withdrawal of the proposed law.

Some decried that lack of consultation. Analysts also argued that the CPE reinforced the market segmentation already in place in since the introduction of the fixed-duration contract, the Contract à Durée Déterminée, CDD, a partial reform implemented in 1979. The proportion of those employed under the CDD rose from 3 percent in 1983 to 17 percent in 2000. This substantially increased turnover without a reduction in unemployment duration.

The lesson: Because partial reform – as undertaken in Spain in the early 1990s – tends to reinforce market segmentation, it is a poor substitute for broad reform of labor market policies, and its effectiveness is limited. An alternative, proposed by analysts in France, involves a more graduated approach that reduces labor market segmentation across different age groups, e.g., via a progressive type of contract in which protection gradually increases as a worker’s tenure rises. Such an approach sounds intriguing, although it would have to be monitored closely and evaluated to ensure that it produced the desired outcomes.


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**Designing social protection programs to broaden coverage while removing unnecessary incentives for informality**

6.11 Beyond policies focused on increasing workers’ human capital and access to formal sector jobs, it will be important for the Government to focus on short-to-medium term measures to strengthen the design and increase coverage of social protection, regardless of where a worker is employed. Policies to strengthening social protection can take two complementary routes.

- One route involves **strengthening the design of existing social protection programs** to raise the benefits and lower the costs workers perceive with respect to affiliating with formal social security – in other words, reforming existing programs to reduce incentives for informality and increase incentives for formal employment.
- A second route would involve a more holistic approach, focused on making social protection broadly available based on the concept of “Citizenship” rather than the concept of “worker”, narrowly defined as a person with a formal labor contract – and to do so with attention to incentives generated by the system as a whole, to ensure that programs do not generate incentives for informality.

6.12 These two complementary routes are developed in Perry et al (2007), who map out an agenda for protecting all citizens against key risks in the long term, regardless of their labor status. In the case of health, the authors argue that because health shocks can impose significant external costs on society, there is a case for providing a package of minimum essential coverage to all citizens, de-linked from the labor contract and financed through general taxation. Their focus is on providing insurance to the widest risk pool, while eliminating differences in basic coverage on the basis of sector and job type. In the case of
pensions – or more accurately, old-age income security – the authors make the case for essential coverage in the form of a poverty-prevention pension targeted toward the poor, as part of a broader multi-pillar pension system that includes individual retirement savings. For both health and pensions, the approach focuses on ensuring basic coverage of the population while taking into account the incentives that could affect labor market and saving behavior that are put in place by the relevant programs.

6.13 Movement toward such a system constitutes a long-term policy agenda. Consistent with that agenda, Perry et al (2007) outline short to medium-term actions focused on improving the benefit-cost ratios of social protection programs, to induce more workers to prefer formal sector employment. The authors argue that such measures will help to lay the foundation for a more effective and inclusive system of social protection. These actions include: (1) unbundling of complex, multi-dimensional benefit packages; (2) improving the efficiency of health and pension systems via design improvement and institutional strengthening at the micro level; and (3) increasing the coherence, portability and incentive compatibility of programs through the harmonization of programs rules, eligibility requirements, and benefits levels.

6.14 This section reviews first the challenges in the area of protection for health insurance, before turning to those related to old-age income pensions. It outlines recommendations on the broader agenda of unbundling of complex benefit packages and improving the overall quality of these benefits.

**Toward Universal Social Protection in Health**

6.15 In the context of health, strengthening and expanding social protection via the two complementary routes could involve: (a) building on and consolidating recent Government efforts to extend health insurance to a broad swath of the population; while (b) continuing to strengthen the efficiency, coherence, and incentive compatibility of the health insurance system. This latter route could involve greater attention to integration of the contributory and subsidized regimes, to reduce any incentives for informal employment. It will be important to ensure that these effects do not become more pronounced as the country continues to develop and mature.

6.16 How can Colombia achieve universal health coverage while minimizing labor market distortions that can contribute to informality? Given the problems associated with payroll tax financing of both contributory and non-contributory programs, and the complications associated with having multiple health insurance programs, there is a case for moving toward a single package of minimum or “essential” direct coverage to all Colombians, along the lines proposed in Perry et al (2007) – a package that is delinked from the labor contract and financed through general taxation. The broader, longer-term, question of financing is addressed in a subsequent section.

6.17 Working to achieve universal health insurance coverage in a way that minimizes incentives for informality will require a concrete transition strategy that identifies challenges and builds on lessons in a phased manner. Moreover, any efforts to move toward a sustainable system of universal health

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85 Some policy analysts have already begun discussion of a possible transition strategy for Mexico which, like Colombia, implements parallel contributory and subsidized health regimes. The analysts note that Mexico’s contributory system already provides some measure of subsidy to formal sector workers. In this context, they argue that Mexico could gradually and incrementally increase subsidies to formal workers – financed by general revenues – until the value of the subsidy equals the value of the package of the subsidized health regime (or to the value of some “unified health package” to be defined). Formal workers would then be allowed to choose whether or not they wished to contribute through their job for supplementary health coverage.
insurance coverage will benefit from continued efforts on the part of the Government to promote greater efficiency in the health system. This would include:

- Implementation of strategic purchasing to reduce costs and improve the quality of service of public providers;
- Adoption of more flexible enterprise models;
- Analysis of the relative benefits and costs associated with the contributory and subsidized health regimes, including the value of per capita insurance for both the contributory and subsidized regimes on one hand, and the package of services on the other;
- Reviewing health packages to ensure they are based on sound insurance principals, with particular emphasis on protection against impoverishing health shocks;
- Evaluating the effective use of resources from secondary financing sources, such as gambling, liquor and cigarette taxes; and
- Strengthening of the Government’s capacity to reduce evasion of health payments through information technologies and greater integration of administrative records with the System for Social Protection (e.g., PILA, RUAF) and other data sources (e.g., DIAN databases).

6.18 The study on health systems in Latin America (Baesa and Packard 2006) suggests that such measures will go a long way toward ensuring the fiscal sustainability of an effective, integrated system of risk pooling for the entire population, while preserving the gains associated with recent health sector reforms.

6.19 In the short to medium term, the Government could also rigorously assess the impacts of optional changes in Colombia’s health structure, including increases in health insurance contribution rates under the contributory regime a unified health plan and the creation of a partially subsidized health insurance scheme. Among other things, it would be important to assess (a) the likely effects of these measures on incentives for formal versus informal employment; and (b) the availability and adequacy of provisions for workers to retain coverage if they move from one sector or job type to another.

6.20 Finally, given Colombia’s long-term commitment to achieving universal social protection in health that minimizes incentives for informality, it would be important to strengthen the statutory legal framework regulating the health sector, and ensure that the institutional arrangements are transparent to all actors. To date, the lack of such a framework has resulted in confusion about what should be covered by health insurance; it has also led to judicial decisions that undermine the financial sustainability of the sector and introduce perverse incentives to individuals seeking care.

Transforming Colombia’s System of Old Age Income Security

6.21 In the context of old-age income security, strengthening and expanding social protection via the two complementary routes presented earlier can build on existing (or envisioned) programs to prevent poverty among the elderly poor – for example, through consolidation and extension of the country’s non-contributory cash transfer program to indigent elderly, or via the proposed program of Periodic Economic

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86 The UPC (Unidad de Pago por Capitación) are the health risk premiums of the contributory and subsidized regimes.
87 The POS (Plan Obligatorio de Salud) are the packages of health services of the contributory and subsidized regimes.
88 PILA stands for Planilla Integrada de Liquidación de Aportes; RUAF stands for Registro Único de Afiliados al Sistema Integral de Seguridad Social.
89 The partially subsidized regime is based on the promotion of voluntary health contributions on the part of the self-employed population with some ability to pay (i.e., workers in SISBEN level III).
Benefits (BEPs)\textsuperscript{90} – while strengthening the provisions for individual savings for old age. As in the case of health, it will be important to focus on greater integration and incentive compatibility of old-age income security programs, although this will present a greater challenge, since the multiple contributory and non-contributory programs have not been conceived or developed as part of a larger, coherent, system of old-age income security for all citizens.

6.22 Colombia’s system of old-age security is currently made up of several connected and unrelated programs, including contributory and partially subsidized pension programs, and non-contributory transfer programs to poor elderly persons. The mainstay of Colombia’s contributory pension system, established under Law 100 in 1993, is a dual system that includes both a public pay-as-you-go scheme (PAYG) and a private scheme based on individual savings accounts. The public and private schemes are related, and workers can switch between the two, subject to some restrictions. In an effort to raise pension participation, particularly among low-income workers, Law 100 also created a subsidized Solidarity Pension Fund (Fondo de Solidaridad Pensional, FSP). The FSP subsidizes the contributions of low-income workers to the public defined benefit scheme. The subsidy has a redistributive goal, as it is targeted to poor workers, but it also aims at providing incentives to participate in the contributory pension system, as only workers who contribute to the system get the subsidy.\textsuperscript{91} In addition to the contributory schemes and the FSP, the Government of Colombia implements two non-contributory transfer programs for seniors, a cash transfer program and a feeding program.\textsuperscript{92}

6.23 In contrast to total health insurance coverage, pension coverage is low in Colombia. Only 28.8 percent of the working age population reports contributing to formal pension schemes. Coverage under the FSP is also relatively low; as of April 2007, only around 200,000 people were covered by the scheme. Coverage under the cash transfer and feeding programs is also relatively low. Nonetheless, the Government of Colombia has expressed a commitment to expanding coverage and, as a result, passed legislation loosening eligibility requirements for the FSP and raising the budget allocations for the transfer programs, so as to reach out to a wider swath of the elderly population. Perhaps more importantly, the Government is currently defining options for a program of Periodic Economic Benefits (BEPs) that would provide minimum periodic income support to uncovered seniors who did not qualify for pensions.\textsuperscript{93}

6.24 It is important to note that the various pieces of Colombia’s old-age income security system do not yet represent a fully integrated set of programs. The contributory system does have explicit links between the public PAYG and the private savings schemes, including rules for switching between the two. In addition, the FSP is linked to the PAYG part of the contributory system. Nonetheless, the transfer programs operate outside the realm of the contributory system, and little is yet known about how the BEPs program will link to either the contributory, subsidized, or non-contributory systems, if at all.

\textsuperscript{90} The BEPs program currently in the design phase, is a program intended to strengthen old-age income security among currently uncovered Colombians via a benefit whose level is de-linked from the minimum wage and from formal labor contracts.

\textsuperscript{91} A trustee was created to manage the FSP and received the mandate to actively search for potential beneficiaries of the program. Furthermore, the trustee receives a fee for each contribution paid by the affiliates to the FSP, so it has incentives to be proactive in looking for beneficiaries and keeping them contributing.

\textsuperscript{92} These programs are Programa de Protección Social al Adulto Mayor (PPSAM) and the Programa Nacional de Alimentación para el Adulto Mayor "Juan Luis Londoño de la Cuesta", run by the Ministry of Social Protection and ICBF, respectively.

\textsuperscript{93} The BEPs program will not technically be a pension program (pensions are required by the constitution to pay no less than 1 minimum wage, but there are constitutional provisions to allow payment of “periodic economic benefits” that are less than that amount).
However, the Government has recently begun a process to improve the integration and coherence of the pension system, including through the establishment of a unified pension administrator, Colpensiones.

6.25 In this context, how can the Government expand old-age risk protection to the entire population in the long run, with the aim of preventing poverty among its elderly population, and do so in a way that minimizes adverse labor market or savings incentives? As in health, there is a case for providing minimum essential coverage to the elderly in the form of a poverty-prevention pension, but in this instance, targeted to the poor and conceived as part of a broader multi-pillar pension system that includes, at its core, provisions for individual retirement savings. Such an approach would be based on the principle that, in the context of its commitment to poverty reduction, the Government has a unique role in protecting the elderly, who are no longer able to generate their own incomes.

6.26 As a form of social insurance, risk pooling would be central to the poverty-prevention element; and, because of the social costs associated with people falling into poverty in old age, there is a clear risk-management rationale for delinking access to this poverty-prevention pension from the labor contract, and financing it through general revenues (Packard 2006, Perry et al 2007). At the same time, recent policy research reinforces the notion that it is important to promote individual saving as a core element of a broader system of old age security. Indeed, given the high probability of income loss in old age, saving should be the mainstay for earnings replacement during old age (Gill, Packard, and Yermo 2004). Lessons from recent experience make it clear that savings pillars should closely link benefits to contributions, and do so in a similar way for most workers, regardless of the status of their labor contract (perhaps through a combination of mandatory and voluntary savings instruments). In this context, Colombia’s introduction of an individual savings component as a core element of its contributory pension system is fully consistent with the saving objective.

6.27 In pursuing more effective protection against old-age poverty in the face of informality, Colombia faces several important challenges regarding the design and operation of the poverty-prevention and savings components, as well as the relationship between the two. On the latter, recent policy research on pension reform in Latin America and the Caribbean suggests that from an institutional perspective, the poverty-prevention component is best financed and managed separately from the savings component. Among other things, the institutional imperatives associated with managing a minimum poverty-reduction payment are distinct from those associated with the management and supervision of investments under individual capitalization schemes (Gill, Packard, and Yermo 2004). Moreover, progressive integration of the system’s various components is essential. Weak design of one element can undermine the impact of another. For example, excessively generous or badly designed poverty-prevention components serve to reduce incentives for personal retirement savings and/or exacerbate incentives for informal sector employment.

6.28 The area of old-age income security presents particular challenges in terms of building a more integrated and incentive-compatible system, given that, to date, the Government has not tended to view the contributory and non-contributory programs as part of a larger whole. Chile’s long-term process of strengthening the pension system may provide some valuable lessons for Colombian policymakers. The pension system envisioned under the Chilean reform represents a movement away from what is predominantly a single savings pillar to a more balanced multi-pillar system. The Chilean reform strengthens and better integrates the assistance and redistributive components with the individual savings component of the system. It improves the capacity of the pension program to protect the less fortunate, without neglecting incentives and avoiding strong fiscal impacts (see Box 6.2).

Box 6.2: An Integrated Approach to Old-Age Income Security: Chile’s Pension Reform
In 1981, Chile undertook a structural reform in its pension program, moving from a public defined benefit scheme to a private scheme based on individual retirement savings account. While the Chilean system was largely privatized, the State did maintain a subsidiary role, providing a guaranteed minimum pension and offering a social assistance pension (PASIS) to elderly in poverty, as well as other vulnerable groups (e.g., the disabled). The strengths and weaknesses of the post-1981 Chilean system have been discussed extensively in the pension literature, but in terms of coverage, the combination of the individual savings and social assistance pillars helped Chile to achieve one of the highest and most equitable rates of coverage of the elderly in all of Latin America (Rofman and Luchetti 2006). Nonetheless, in terms of preventing poverty among the elderly, important challenges remained. The minimum pension was only available to individuals who had contributed at least twenty years to individual accounts, and many workers were unable to achieve this requirement, leading to coverage gaps. In 2003, roughly 23 percent of all seniors, age 65 and over did not receive a pension, either through the individual savings pillar or through the PASIS. About one-quarter of all seniors in the poorest quintile lacked coverage via one program or the other.

To address these concerns, the Government launched another round of reforms in 2006 that were passed by the Chilean Congress at the end of 2007, that focuses on providing old-age security for all, including the poor and the informal. In designing this reform, Chile set out to move from two separate systems – a system of individual accounts (defined contribution pillar) and a targeted social assistance pension (PASIS) – to a single integrated system. The reform seeks to establish an appropriate mix of pooling and saving instruments, an effective institutional structure for supervision and management of the new system, and, importantly, incentive compatibility between the poverty-prevention and saving components of the system and the labor market. The system also includes measures to promote greater gender equity, as well as incentives to draw more young contributors into the system.

The reform contains a broad set of measures, including the substitution of the existing targeted social assistance pension (PASIS) by a new solidarity pillar, extension of coverage to self-employed workers, norms to promote gender equity, and several norms aimed at improving the performance and supervision of the individual accounts pillar. The solidarity pillar provides benefits to individuals in the lowest 60 percent of income distribution who have either not contributed to the system or who have low contribution levels. Those who have not contributed will receive a pension of 75,000 pesos (approximately 142 dollars) per month. Those who have low contribution levels will receive a supplementary payment, such that the sum of their self-financed pension and the supplement will be no less than Ch$75,000 and no more than Ch$200,000 (approximately 380 dollars) a month. The size of the supplementary payment declines with the size of pension that is self-financed such that workers who can self-finance a pension of 200,000 or more receive no supplement (see Box Figure, below). Until that point, however, the total pension increases as the self-financed pension does, so that workers receiving the supplement still have positive incentives to continued contributions.

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94 Among recent World Bank publications that have examined the Chilean experience include World Bank (1996) and (Gill, Packard, and Yermo 2004).

95 Patterns of coverage under the contributory and non-contributory programs differ quite significantly. In 2003, nearly all seniors in the wealthiest quintile received their pensions via the contributory program, while about 43 percent among those in the lowest quintile. About one-third of seniors in the lowest quintile received their pension through the non-contributory PASIS program (Rofman and Luchetti 2006).
participation of self-employed workers in the existing pension system has been voluntary in Chile, and only about 5 percent of the self-employed have chosen to participate. The reform extends the same program benefits to the self-employed, including the solidarity benefits, and over time, their participation will become mandatory (unless the person explicitly opts out). It is worth noting that even though Chile currently has low coverage of self-employed workers, as in other Latin American countries, it does not have as high levels of informality among the self-employed (since most of them are registered and pay other taxes). As such, the enforcement challenges associated with expanding coverage among the self-employed in Chile appears to be a relatively less difficult challenge than in other countries in the region.

The reform also modifies the institutional structure for managing and supervising the new system. Specifically, a new Social Security Institute (Instituto de Previsión Social) will be in charge of the system of solidarity pensions while a Superintendent of Pensions (Superintendencia de Pensiones) will supervise the whole system, including the Social Security Institute. In undertaking the reform, the Government of Chile envisions a transition period, with a progressive roll-out of the solidarity pillar, of five years. The fiscal implications of the reform, while not trivial, appear manageable. The presidential advisory commission overseeing reform of the social security system estimates that the new solidarity pillar will cost around one percent of GDP in 2025. The total fiscal cost of pensions in that year would thus grow from a projected 1.6 percent of GDP in the absence of the reform to 2.5 percent of GDP with reform.

• Examine more closely the factors that have led to low coverage rates, not only in the contributory system, but in the subsidized FSP program as well. Such analysis would be important for strengthening both programs, and would enable the Government to avoid bringing existing design problems into the BEPs program;
• Analyze the interactions among the various programs and the BEPs to improve coherence and incentive compatibility among existing programs and between the existing programs and the BEPs.

6.30 A key feature of the BEPs design will be its focus on providing a periodic economic benefit below the statutory minimum wage – perhaps more closely linked to poverty criteria – as opposed to the minimum wage, to which formal pension benefits are constitutionally tied. This clearly has implications for the fiscal costs of the program, and may also have broader applicability to the prevention of poverty in old age by establishing a reasonable metric for non-contributory social assistance programs. Together with efforts to improve the incentive compatibility of the existing programs, this may provide an opportunity to begin to bring the contributory, subsidized, and non-contributory programs together as a more coherent system.

6.31 In the context of developing a more coherent system of old-age security for Colombia, it would be important to:
• Evaluate the potential role of a unified pension administrator – whether Colpensiones or another entity – to foster greater coherence and incentive compatibility of the entire “system” of old-age income security, including not only contributory and subsidized, but also non-contributory programs.
• Given concerns about poor workers’ ability to save for retirement on a regular basis – both due to problems of low income levels and high variability of incomes – it would also be important for the Government to consider:
  o mechanisms that provide more flexible savings instruments for low-income and/or seasonal workers, in terms of the timing and minimum amounts of contributions;
  o whether self-employed workers ought be allowed to save or contribute using a base income lower than the minimum wage.
• Examine the potential for increasing flexibility of contribution rates across the lifecycle, as a means to induce greater participation in the contributory system. This potentially includes special provisions or incentives for younger workers who may have more immediate priorities for a portion of their savings (e.g., children’s education, purchasing a home), and flexibility in the risk-return profiles of savings portfolios over the lifecycle.
• Implement information and education campaigns to address existing information problems among informal workers, especially low-income workers with low levels of education. Such campaigns should include basic information on Colombia’s old-age security programs and the benefits of saving for retirement, and on the procedures necessary to access the available programs and entitlements.

97 One advantage of the private individual accounts as opposed to the public defined benefit system is that any savings a worker pays into an individual account is his/her own, thus providing the worker with relatively greater flexibility. No minimum period of contributions is required to qualify.
98 In this context, the FSP helps some self-employed workers indirectly to make lower-than-minimum wage contributions. Early assessments of the FSP raised some concerns about the program, however (Santa Maria et al 2008). As such, it would be useful to evaluate more formally the design and implementation of the program in the context of the current set of Government initiatives on old-age income security.
99 Such provisions are being considered and/or have been implemented in Mexico and Chile.
Raising the Benefits of Social Protection via Unbundling, and Improving Quality of Service

6.32 As discussed earlier in the report, the formal sector of the labor market in Colombia has to make mandatory contributions to a fixed social security package that includes health insurance, pensions, work-related risks, unemployment insurance (Cesantías), the national training system (SENA), the national childcare system (ICBF), and a range of benefits and services available through mutual benefit societies, the Cajas de Compensación Familiar (CCF) (see Box 2.1). Some components of the package go directly to workers and/or their families, while others go toward broader public benefits.

6.33 As analyzed in Chapter 4, while some workers may value all elements of the package, others may only value some of them. To the extent that workers do not value one or more components of the package, those components are seen by the worker as a tax (sometimes called a “pure tax”) on their earnings. In addition, some workers believe they will not ultimately receive the benefits to which they contribute (CIDER 2007).

6.34 To the extent that workers consider some components of the package as pure taxes – if the perceived benefits of the total package are seen to be lower than the costs – then workers may prefer to opt out of formal jobs. For this reason, Colombian policymakers should consider unbundling the non-essential elements of the current package. Unbundling would involve shedding – or making voluntary – those elements of the current social security packages where there is no risk pooling or risk management rationale, where payroll contributions finance private as opposed to public goods. The objectives of unbundling the mandatory package would be to: (a) increase the benefits relative to the costs of the social security package, and (b) focus social security on its core social protection functions, i.e. the provision of public goods, where risk pooling/risk management are important and/or the good or service provides important and positive externalities.

6.35 What does this imply for the provision and financing of unbundled benefits? In some cases, where payroll taxes currently finance private goods – e.g., family recreation activities – it would be most appropriate to offer the service on the basis of voluntary contributions. Workers could contribute if they value the service, and worker contributions would then reflect their perceived value and demand for those services. In other cases, the provision of public goods is clearly involved – e.g., the implementation of ICBF programs supporting early childhood development. Nonetheless, the rationale for financing these public goods via payroll contributions/parafiscales is not clear. Indeed, such programs would be more appropriately financed through general taxation. Thus, unbundling of the multi-faceted, mandatory social security benefits package could be used to shift workers’ perceptions of the relative benefits and costs of being formal. This would also provide an opportunity to reduce the currently high levels of non-wage costs which, as discussed earlier in the report, is an important segmenting factor in the Colombian labor market.

6.36 As a complement to unbundling of the current multi-dimensional social security package, it will be important to ensure that the quality of any mandatory package is sufficiently high. In the case of unbundled benefits that are available on the basis of voluntary contributions, providers will have clear incentives to maintain or improve quality, as demand for such benefits will be a direct reflection of workers’ perceptions of service quality.

6.37 Beyond the design of current social policies, several other factors affect workers’ participation in formal social security programs. While public economics provides a clear rationale for such programs – and the data show that Colombian workers would like better access to risk management instruments – informal workers often lack sufficient information to make informed choices or, if they have some information, to affiliate with the program. Analysis of both quantitative and qualitative data also indicates
that for many poor, informal sector workers, low or highly variable income levels impede their ability to contribute toward health insurance and pensions on a regular basis, even if they want to. Some workers also report a lack of confidence in the government’s commitment (or ability) to provide benefits to which they are entitled, especially pensions, which are paid out well after one contributes.

**Reducing Regulatory Barriers by De-linking access to Social Protection from Labor Market Status**

6.38 This report, as well as body of recent literature from Latin America and from the OECD highlights that financing of some social protection programs through payroll taxes can generate strong incentives for informality. Concerns about these incentives effects have led to proposals to de-link both access to and financing of social protection program from the labor contract and move to tax-financed programs (Perry et al 2007; Robalino et al, forthcoming, 2009). The goal would be to offer basic benefit packages (e.g., health, pensions, or unemployment) to all citizens, regardless of their income level or where they work. The costs would be financed from general revenues and/or earmarked taxes. Under these proposals, individuals wanting extra protection or insurance would be free to enroll in voluntary, complementary plans that could be managed either by the public or private sector.

6.39 This would reduce labor market distortions because payroll taxes and the resulting tax wedge would be eliminated. In addition, it would eliminate distortions arising from the existence of parallel systems for different groups of workers (e.g., formal versus informal). General taxation is potentially the most efficient and equitable financing mechanism for risk pooling, depending on the progressivity of tax collection instruments and subsequent patterns of public spending (Mossialos et al 2002; Savedoff 2004, cited in Baeza and Packard 2006). Financing essential coverage through general tax revenues also has the benefit of ensuring that risks are effectively spread across the widest possible risk pool. Some distortions might still emerge through the income effect associated with subsidies, and moral hazard (reduced work and/or savings efforts) might still result, but these negative effects could be contained if the benefits offered by the programs were not excessively large.

6.40 As discussed earlier, the idea of delinking benefits that are now part of the formal social security package from the labor contract is likely to be a long-term endeavor, as it would involve a significant change in the conceptual and operational mechanisms for providing social protection, in health, pension and, more generally, social protection. This would involve many practical challenges. There are also concerns about the opportunity cost of transfers that subsidize the entire population, regardless of income. In addition, general tax revenues (such as income taxes or consumption taxes) are low in many LAC countries, and the scope for tax reform is limited in the short-term. So governments might be reluctant to cut workers’ contributions for social insurance (see Box 6.3).

6.41 An alternative proposal, presented the forthcoming World Bank Regional Study on Social Protection on Latin America (Robalino et al, forthcoming, 2009), is to de-link access to social insurance from formal sector labor contracts but to continue financing part of the system from beneficiaries’ contributions (and employers’ contributions, when relevant). All individuals would have the same rights to social security coverage but would contribute to the financing of the benefits they receive in proportion to their savings capacity. High-income workers would pay in full the contributions and/or premiums corresponding to the risks for which they are covered, while low-income individuals would pay only a portion of these amounts. Separate, fully subsidized programs would be set up to meet the needs of the long-term poor who are unable to contribute anything. This approach would eliminate the implicit

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100 This sections draws, in part, on the forthcoming World Bank Regional Study on Social Protection in Latin America and the Caribbean and its summary (World Bank, 2009).
101 Those are the basic principles underlying the recent Chilean pension reform (see Box 6.2).
redistributive component of existing systems, which increases the non-wage labor costs and can reduce employment levels, promote informality, and/or induce other kinds of adverse behavior. Instead, the redistributive component of the reformed system would be made explicit and would be financed out of general revenues, to avoid creating any negative employment effects.

**Box 6.3: De-linking Access to Social Protection from the Labor Contract: The Pivotal Challenge**

While de-linking access to social protection from the labor contract would be a pivotal step in universalizing coverage and improving the functioning of and incentives in the labor market, it will likely pose a number of technical and political challenges for Colombia, as it implies replacing payroll tax financing with general tax financing. While challenging, such a change is not impossible, however. Several countries, including, Italy, France and Spain, have implemented such initiatives. Among the key issues, however, will be to identify financing sources that allow the collection of adequate funds to achieve desired coverage in key risk areas, such as health and old-age income security. The most common – and least distortionary – sources for this type of financing are consumption taxes, such as the VAT, as well as income, wealth, and/or property taxes. Moving toward de-linking access to social protection from the labor contract will involve several sets of challenges. Among others:

- Any discussion of de-linking in Colombia will need to consider both payroll taxes for benefits like health insurance and pensions, but also _parafiscales_, employer contributions that finance training services through the public entity (SENA), childhood and family social services through ICBF and monetary and in-kind subsidies through the _Cajas de Compensación Familiar_ (CCFs). These _parafiscales_ amount to 9 percent of the payroll and some of them clearly finance public goods (e.g., childhood services). But others do not (e.g. recreation subsidies for formal employees and their families). This leads to several key questions. For example: What is the economic rationale for public financing of the benefit? Is it possible to distinguish which services constitute public goods and/or generate positive externalities and which are purely private consumption goods? In the case of pure private goods, the rationale for public financing is low, and consideration should be given to whether it would be more appropriate to make contribution to those benefits voluntary, on the basis of people’s demand for the service(s). In addition, it is important to ask if the particular public goods or services are best financed via a payroll tax, which is covered by a relatively small share of the population? Or is some other instrument, perhaps based on a broader pooling of resources, warranted?

- Moving towards de-linking social protection from the labor contract will thus also require a deep examination of the best alternative source of finance for services with public goods rationale. Santa Maria et al (2008) argue that in Colombian case, two sources that should be analyzed: (i) VAT, both through increased rates on general goods, and widening of the base of covered products; and (ii) the elimination of the wide variety of current exemptions on income taxes. It should be noted that Colombia displays a low rate for the value added tax, compared to other Latin American countries (see box table 6.1). Also, the fact that the basic basket of food products is exempted should be reviewed, as it provides larger subsidies – in absolute terms – to the largest consumers, who tend to be the wealthiest Colombians. An alternative to the current approach could be to tax all products and, then, to give a rebate to poor households (e.g., those in SISBEN I and II) to compensate them for any adverse welfare impacts of higher taxes.

**Box Table 6.1: Value-added Tax Rates for Selected Latin American Countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>VAT rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>16%</td>
</tr>
<tr>
<td>Chile</td>
<td>19%</td>
</tr>
<tr>
<td>Peru</td>
<td>18%</td>
</tr>
<tr>
<td>Brazil</td>
<td>17%</td>
</tr>
<tr>
<td>Argentina</td>
<td>21%</td>
</tr>
</tbody>
</table>

Source: Ministers of Finance or Central banks of each country.

- In this context, it is not only important to identify to potential tax instrument to replace payroll taxes, but to undertake careful estimates of the fiscal costs of providing minimum essential coverage. This exercise would requires the definition of a number of key factors, including which risks will be covered, whether minimum essential benefits would be extended to all (as proposed in the case of health) or targeted only to the poor (as
proposed in the case of old-age income security), as well as expected demographic and economic changes that will affect the size of the target groups under different scenarios.


A recent study by Levy and Dávila (2003) on Mexico examines the option of raising VAT taxes as a revenue enhancing measure and then providing compensating transfers to the poor to offset the effect of an additional tax burden of the poor. The authors find that this option is both viable and efficient, leading to considerably higher revenues to the government even after payment of the transfers to the poor.

6.42 In the case of providing minimum essential health coverage, Packard (2006) argues that, given externalities, the social costs of individuals failing to cover themselves and their dependents are high enough that “there is a clear risk-management rationale to take the ‘choice to cover’ out of the hands of employers and workers” by shifting financing away from payroll contributions and toward general revenues. Moreover, in countries such as Colombia, where subsidized health regimes have been put in place to fill health coverage gaps left by the formal sector, general revenue financing would help to address the issue of misaligned labor market incentives associated with high non-wage costs and a system in which payroll tax-financed social security for the formal sector “competes” with general revenue-financed (and government subsidized) assistance programs for workers in the informal sector, such as the Regimen Subsidiado in health (Perry et al 2007, Levy 2006).

6.43 It is important to note that some OECD, as well as developing, countries have advanced towards health financing based on general taxes. In Spain, for example, a series of health sector reforms over the 1980s and 1990s moved the country from payroll-tax to generation-tax financing of health coverage. Moreover, in Brazil, following a constitutional reform in 1988, the country moved to a unified health system, that integrated different social security schemes and moved to general tax financing of health insurance (Box 6.4). It is important to underscore that the idea of general revenue financing of health should apply solely to minimum essential coverage; both the economics of insurance and a country’s real-life fiscal constraints dictate that additional health coverage, if desired, should be available on a voluntary, contributory basis. In this context, there is a critical role for public policy in fostering more efficient health sectors, including the strengthening of both insurance and provision functions.

Box 6.4: Universal Health Care in Brazil and Spain

Brazil provides an interesting recent example of a reform that facilitates non-contributory health-care financing. Under the 1988 Constitution, the right of workers to social security became a universal. Since then, Brazil has created a single public health system funded from general taxes. The new Single Health System (SUS) integrated the different social security schemes (except those covering the armed forces and police), so that the Brazilian system now consists of just two sub-sectors, the public and the private.

Although a reform of this type requires substantial tax collection capacity (notably, Brazil has the region’s highest tax revenue to GDP ratio), the SUS provides an example of articulation between the public and social-security sectors, in which the former has virtually absorbed the latter, thereby making public health-care coverage universal. As a result, on the basis of financing, closer integration of health care was achieved in conjunction with greater equity. This system is intended to distribute public resources in an equitable manner, as reflected by the fact that most of the population – and particularly the poorest groups – use the SUS. In fact, 40 percent of the population relies on this system exclusively and 44 percent uses it on a complementary basis, although SUS accounts for only one-third of total health expenditure.

In addition, Spain’s experience offers important lessons as well. The health financing system of Spain underwent radical changes in the 1980s and 1990s. Spain shifted from a social security scheme financed with payroll taxes, to a national health service financed by general taxation. Today, 100 percent of Spain’s expenditures in health are public. This occurred in a gradual process that began with the new constitution of 1978. The constitution created a new Ministry of Health to consolidate most health programs and organizations. The reform process culminated in 1986.
with the passage of the General Health Care Act after four years of discussion. The Act provided a unified legal framework for the previous reforms and called for a tax-based financing system.

The funding sources for the health care system were modified in 1989. In that year 70 percent of health expenditures were financed with general taxation, whereas only 30 percent came from payroll taxes. In the mid-1990s, as a result of general negotiations an agreement signed by political parties and trade unions, it was agreed that all financing would come from general taxation, and individual contributions would be progressively phased out by the year 2000. In 1999, the entire health care budget was funded by general taxation. Currently, Spanish regions receive health care funding as part of their general funding from the central government, proportionate to their population and the increase of fiscal revenues raised in the region, with a few adjusting factors.

6.44 For old-age pension, as a form of social insurance, risk pooling would be central to the poverty-prevention element; and, because of the social costs associated with people falling into poverty in old age, there is a clear risk-management rationale for delinking access to this poverty-prevention pension from the labor contract, and financing it through general revenues (Packard 2006, Perry et al 2007). As noted earlier, however, the recent policy research reinforces the notion that it is important to promote individual saving as a core element of a broader system of old age security. Given the high probability of income loss in old age, saving should be the mainstay for earnings replacement during old age (Gill, Packard, and Yermo 2004).

**Increasing Firm Productivity Through Firm Formalization and Development**

6.45 This document has identified two important elements of firm informality: (a) to a certain extent, firms choose their “degree” of formality, through an implicit or explicit assessment of the costs and benefits of formality versus informality; and (b) informality among firms has negative consequences in terms of access to markets, productivity, and government fiscal revenues. In this context, policy interventions aimed at reducing firm informality are likely to require both “sticks” and “carrots”. By increasing both the costs of informality and/or the benefits of formalization, policies can induce firms to abandon informality. However, the impacts on firms will likely depend on the depth of informality – firms that are at the fringe may be more prone to react favorably to carrots, while those that are deep into informality may require more profound changes in both legislation and enforcement mechanisms. These actions may need to be complemented by reforms aimed at improving the quality of governance and institutions in general, and at breaking perceptions that the State is run for the benefit of the few. The general thrust here is that policies to reduce informality should aim at reducing the costs of formalization, while increasing information of government benefits to formal firms and improving tax enforcement. These policy actions would have an effect only on those firms closer to the margin. More drastic reductions require a longer-term agenda of human capital, governance, and investment climate reforms.

6.46 The short-to-medium term agenda should be directed toward facilitating the process of firm formalization. Firm productivity could be increased directly via greater access to inputs (credit, machinery), government programs (training, information), and other types of benefits (commercial relations with larger firms); as well as indirectly through the reduction of the negative effects of unfair competition to formal firms from informal ones, as discussed in chapter 5.

6.47 There are a number of measures that the Government of Colombia could take to promote greater firm formality in the short- and long-terms and through that promote greater productivity. In the long-term, growth-oriented policies, investments in strengthening the human capital of entrepreneurs and workers, as well as investment climate reforms aimed at increasing productivity and wages in the formal sector are potentially the most effective ways of promoting large reductions in informality. In the short and medium run, efforts to reduce the costs of formality and increase the benefits of formality, and
improve information about formality call all help to facilitate firm formality. It is important to bear in mind, however, that the extent of the impact of these measures on firms will likely depend on the “depth” of the particular firms’ informality. Specifically, firms that are at the margin of formality and informality may be more likely to react favorably to changes in incentives to be formal, while firms that are farther from the margin may require more profound changes on in the broader economic environment, in enforcement mechanisms, and in the institutional capacity of the Government more broadly.

**Measures to strengthen firms’ productive capacity**

6.48 For newly established and small firms, the first years of operation can be extremely difficult. During this early period of firm development, government support for training programs as well as for developing closer relations with larger firms can be critical for increasing the survival chances of those firms. Associations between groups of small firms, as well as relations between larger and smaller firms, should be supported and encouraged. The idea of supporting associations among groups of small firms is recommended, given that the evidence shows that associated firms have higher probabilities of survival. The Chambers of Commerce could coordinate and manage such a program. The idea of encouraging relations between larger and smaller firms is to facilitate training as well as business relations between larger and smaller, formal firms. This type of program could be part of the social responsibility programs of large firms. While such relations between larger and smaller firms would almost certainly help in the development of smaller firms, it would be important to protect the ideas and intellectual property emanating from smaller firms. One possibility in this regard would be for the Chambers of Commerce to supervise the process.

6.49 The design of training programs to improve SMEs’ productivity should be guided by the specific needs of different types of firms. The case of CIMO is a good example of an effective training and technical assistance program that raised the productivity of SMEs in Mexico (Box 6.5).

**Box 6.5: General finding from the evaluation of a training program for SME (CIMO) in Mexico**

One of the over 130 government of Mexico programs targeting Small and medium enterprises (SMEs) is the Program of Comprehensive Quality and Modernization (CIMO).

It was first created in 1988 to facilitate adjustment and structural change of the Mexican economy by promoting industrial training for small and medium enterprises (SMEs). Training Promotion offices were set up within business associations in each region across the country to identify firms’ training needs and prepare jointly with entrepreneurs/managers a training plan. The program then evolved over time to support not only integrated programs of training but to also offer other services to entrepreneurs (technology support, organizational change, technical assistance, quality control and marketing).

The evaluation of Mexico’s CIMO program of integrated training and technical assistance shows the effectiveness of the program in improving the performance of small and medium size companies across the country. In fact CIMO firms in the period under investigation increased investments in workers training, had higher rates of capacity utilization, were more likely to adopt quality control practices and drastically increased their productivity.

Source: Tan and Lopez Acevedo, 2005

6.50 Greater knowledge and coordination of programs would help ensure programs are better known and more accessible. Many informal firms lack information about the benefits of formalization, which

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can slow down the process of setting up new companies, act as a barrier to entrepreneurship, and increase the risk of business failure. In addition, the myriad of programs available are often poorly coordinated, creating inefficiencies and increasing information and transaction costs for firms. Finally, there is a large agenda of evaluation of SME initiatives, which would help shed light on the most effective programs that could then be scaled up. Examples of potential policies include the following:

- Since many ministries or local governments have their own SME initiatives that target the same individuals and enterprises, the Government should consider creating *structures to coordinate SME initiatives and minimize duplication*. It is important to quickly begin the process of consolidating and building historical administrative records from the different programs and service providers, so that the relative effectiveness of these programs can be assessed and evidence-based budget reallocations made to scale up strong programs and wind down or drop ineffective ones.

- Evidence from the European Union (Business Support Services from *Sviluppo* in Italy) shows how an integrated and targeted package of business support measures can help overcome this issue. In 2000, *Sviluppo Italia* (the Italian Government Agency for Business Promotion and Development) set up an integrated program to support prospective entrepreneurs which combines financial incentives, technical assistance, and training. The program expanded the availability of support for new entrepreneurs, and stimulated entrepreneurial activity and higher levels of productivity.

- The Government of Colombia has begun to rigorously evaluate its SME policies, focusing initially on FOMIPYME, a large fund for Modernization and Technological Development of Micro, Small and Medium Enterprises (*Fondo Colombiano de Modernización y Desarrollo Tecnológico de las Micro, Pequeñas y Medianas Empresas*). The fund was initiated in 2001 to encourage the technological development and productivity growth of SMEs. It is structured along market principles, disbursing funds competitively through a network of public and private sector operators, NGOs, industry associations, and universities that deliver different lines of support to SMEs. The Commerce, Industry and Tourism Ministry of Colombia fielded a quasi-experimental FOMIPYME survey in 2006 and commissioned a think tank to evaluate several of its main lines of SME support.

6.51 Over the longer term, both macro and microeconomic policies should be oriented towards improving the general business environment, to create the enabling conditions for the sustained growth of productivity. We have shown that an econometric exercise using data from the Investment Climate Survey for Colombia suggests that productivity is associated with variables related to infrastructure, red tape and corruption, financial access and quality, innovation and skills. Improving the investment climate in the country is the best way to increase firms’ productivity. As far as informality is concerned, particular attention should be paid to tax policy and administration, improving contract enforcement, and reducing corruption.

*Measures to incentivize formality through simplification of procedures, improvements in taxation, and measures to increase the benefits of formality*

6.52 Simplification of the process of formalization. Colombia has moved towards simplifying the formalization process by implementing the Entrepreneurship Attention Centers of the Chambers of Commerce (CAEs), which group together several institutions to facilitate the registration of firms. Experience with the facilitation of the formalization process has had important effects in the principal cities of the country. For instance, Cárdenas and Rozo (2007) estimated the impact of the CAEs program and found that it had an effect of 5.2 percent in the registration of new firms in the six main cities under investigation. These results are quantitatively similar to those obtained by Kaplan et al (2006) for Mexico. They suggest that administrative simplification programs aimed at reducing the transaction costs for formal firms can be effective in tilting at least a fraction of small firms toward formalization. However, this program only facilitates the process for obtaining the registration certificate (*matrícula mercantil*), while the process of formalization goes beyond this step. For instance, after obtaining the *matrícula mercantil* firms should pay taxes and acquire other certificates, depending on their economic sector. For
this reason, further steps should also be taken to simplify the subsequent steps of the formalization process and the Government should consider expanding the CAEs initiative to all cities in the country. The Government could also consider allowing small and microfirms to pay registration costs over time.

6.53 To simplify the subsequent steps of formalization, one of the most common initiatives in the region is to offer small firms simplified tax regimes, which may facilitate their first years of existence. Such programs in Brazil (SIMPLES) and Argentina have proven to be effective in increasing firm’s registration (Box 6.6), by substituting national and regional taxes (including contributions to social security) with a fixed-rate tax that increases with the level of firm revenue. However, the case of Bolivia indicates that such programs have to avoid complexity and ambiguity in order to be effective (Box 6.7). Also, despite positive results of SIMPLES, applying such a regime to a larger set of firms would be a challenge, since the cascading effects of the flat tax rate argue against the extension of the system to medium and large firms, given the negative impact on exports and the pro-import bias associated with this kind of tax. In addition, there are concerns with the incentives created by the system for smaller firms not to grow, and it is necessary to stress that this type of program must be time limited to avoid perverse incentives for firms’ growth.

Box 6.6: Tax Simplification Regimes: The Cases of Brazil and Argentina

In 1997, Brazil created the integrated tax system for small firms (SIMPLES). The program simplifies and unifies federal tax payments and employers’ contributions to social security with a view to facilitate the process of formalization during the first years of the development of small firms. The new system involved three simultaneous actions: (a) a simplification of procedures through the adoption of a flat tax rate, (b) a shift in the base of some taxes, especially payroll taxes and (c) a decrease in the average tax rate for eligible firms. The implementation of the SIMPLES reduced both the number of tax forms and the length of the unified declaration, thus lessening the cost of administering the tax system.

The program substitutes six federal along with five additional taxes that are directed to finance social security for a progressive rate tax that is applied on firms’ gross revenue (depending if they are considered “micro” or “pequeñas”). With the creation of the SIMPLES program, social security payments were de-linked from the labor contract and linked, rather, to firms’ levels of monthly revenue. For this reason, the program reduced the perverse incentives of social security’s costs on the labor market – although did not eliminate it. Social security is also among the taxes replaced by the SIMPLES’ flat tax rate, reducing costs of hiring. Before the SIMPLES, firms had to pay the INSS taxes of 20 percent on the payroll. Under the new regime, these taxes vary between 1.80 and 3.24 of annual gross revenues from micro-enterprises and between 3.48 and 7.56 percent for small firms. In addition, the SIMPLES legislation has had a neutral impact on tax revenues: after an initial decrease due to the system’s progressive nature, the trend has turned positive again.

The positive effects of the reform are reflected in perceptions of the tax system (firms are less likely to report issues with the fiscal administration, filling out, changes in tax regulation, and return of tax forms as major constraints to growth and operation), in increases in formalization (a recent study concluded that SIMPLES is associated with a 13 percentage point increase in licensing among firms in the retail sector, while another study finds that the program led to a 46 percent increase in the rate of new firm registrations), which are associated with an increase in investment (formality was found to have a statistically positive effect on investment by retailers, which also tend to be shifted toward long-run projects) and with increases in the use of paid labor and levels of capital intensity, accompanied by improvements in productivity (see Monteiro and Assuncao, 2006; Fajnzylber, Maloney and Montes Rojas, 2006; and Perry et al, 2007).

In 1998, Argentina created the simplified regime for small contributors (Monotributo). Eligible firms include those that belong to either the service and commerce sectors and have a maximum revenue of US$24,000 and US$48,000, respectively. Targeting uses a “presumptive” technique that combines the analysis of gross revenue and physical factors (e.g., consumed electric energy and surface area affected by the activity). Eligible industries in the commerce sector must consume less than 10,000 KW and should not occupy more than 82 square meters, whereas service sector firms should consume 20,000 KW or less energy and the affected area by their activities must not exceed 200
square meters. Finally, eligible firms cannot run more than three separate establishments. The program substitutes several national taxes, such as: (i) the profit tax; (ii) the value added tax (VAT); (iii) the tax to minimum presumptive profit; (iv) the patrimonial imposition over firms’ assets; and (v) provisional contributions to social security and social activities for a fixed rate tax equivalent of 33 percent of the payment that a firm would make under the regular tax regime.

Box 6.7: Tax Simplification Regimes should be Simple: A Cautionary Tale from Bolivia

Bolivia has also developed a tax simplification scheme, but results have not been as positive. In Bolivia three taxing regimes coexist for small firms: the simplified taxing regime (RTS), the integrated tax system (RTI) and the unified farming regime (RAU). The three programs substitute the same taxes, which include taxes on utilities and the VAT, but each one of them has different beneficiaries. The RTS is focused on craftsman, retail commerce businesses and firms that develop their activities in the food sector. In order to be eligible firms must have US$17,000 or less in annual revenues and only one employee. The RTI is oriented towards the transport sector. It only covers firms that have one or two vehicles. Finally, the RAU focuses on agricultural activities and the tax is determined by the number of kilometers in which the activity is developed. The Bolivian regime is complex and creates three different programs that give the same benefits to different types of sectors. This makes legislation more difficult and the objective of simplifying firms’ formalization process is lost.

In principle, these programs should simplify tax payments by substituting small firm contributions to social security and national taxes (rent and VAT) for fixed-rate taxes, based progressively on firms’ assets.

Another problem that needs to be solved in Bolivia is that these programs fail to take advantage of already existing regulations to promote formalization. For example, despite the fact that laws 590 of 2000 and 905 of 2004 give departments and municipalities the choice to generate special regimes to small firms, nothing has been done to take advantage of these laws. On the contrary, municipalities continuously create new taxes to maintain their fiscal balance.

6.54 Another impediment to firm’s registration is related to the perception of high financial and time costs associated with closing a business in Colombia. Despite the existence of some regulations related to bankruptcy (e.g., Law 550 of 1999 and Law 1116 of 2006), further analysis is needed to determine how best to further reduce firms’ costs in this regard. In this regard, in 2005 the Colombian Congress approved new legislation (Ley de quiebras) that addresses some of the main obstacles to expediting firm liquidations. To be effective, enabling legislation, which has yet to be enacted, need to be approved.

6.55 Providing incentives for departments and municipalities to create special regimes for small firms can help further boost formality, in line with the Law 590 of 2000 and Law 905 of 2004. These laws establish a series of priorities for formal micro, small and medium enterprises (MSMEs). This includes authorization for the National Guarantee Fund (Fondo Nacional de Garantías) to provide credit guarantees to these firms (up to 70 percent), creation of special credit lines for MSMEs, and authorization for sub-national entities to establish special tax regimes for this class of firms.

6.56 Finally, a few considerations that link many of the recommendations made in this section. Fundamentally, informal employment in firms of relatively low technology and capital intensity can only be attractive if the overall level of labor productivity in the formal sector is low, as it seems to be the case in Colombia. To the extent that regulations hinder investment in physical or human capital, or prevent the efficient organization and operation of firms, they perpetuate the low levels of productivity throughout the formal economy and, thus, the levels of segmentation and informality. Increasing the size and productivity of the formal sector probably offers the greatest hope for raising the standard of living of workers over the long term. While it is true that micro-firms participating in business associations, credit institutions, and training institutions are more prosperous than those that do not participate, the evidence suggests that the differences may not be too dramatic. This means that, among other things, programs such as credit targeted to small firms and promotion of participation in formal institutions, while useful to
marginally raise productivity and labor incomes, should be viewed as transitional instruments. In the long term, the country needs macroeconomic stability, security (both physical and judicial), simple rules, an environment amenable to private investment, and a tax regime that encourages formalization.

**Strengthening the Government's Institutional and Enforcement Capacity**

6.57 The policy recommendations presented so far have focused on increasing the benefits of formality and reaching higher levels of productivity. Efforts to raise worker welfare and firm productivity through efforts to assure social protection coverage among Colombia’s citizens and promote firm formalization and development will benefit significantly from broader efforts to strengthen the Government’s institutional and enforcement capacity, as well as to build confidence among workers and firms in the intentions and capabilities of the State. Indeed, the space for firms to opt into informality is likely to be higher when there is a collective view that tax and social security resources are being poorly used and, more generally, when the State’s actions are perceived to be ineffective or unfair. This can give rise to a social norm of regulatory non-compliance – a so-called “culture of informality”– that can further reduce the State’s effectiveness and its ability to enforce the law. Analysis of cross-country tells a consistent story in this regard. Weaker government capacity, weaker rule of law, and lower perceptions of fairness on the part of State institutions are all associated with higher levels of informality.

6.58 A key barrier to greater formalization resides in the perception of low quality and performance of services, as well as more generally, a lack of trust in the State’s ability to deliver promised benefits. Hence, to attack one of the key roots of informality, the Government would need to:

- Increase the quality of its services, through improvements in their relevance, quality and efficiency (actual benefits received by beneficiaries). This will include improvements in the design of the services or benefit for greater relevance and impact (size, frequency, design, modalities, etc), in the targeting mechanisms used to identify beneficiaries, in the systems for the delivery of services to increase their efficiency and reduce administrative costs, in the coordination of complementary services and the rationalization of duplications;

- Promote greater transparency in the use of resources, including through the systematic and rigorous evaluation of the effectiveness of government programs affecting firms and workers, their publication. These evaluations would led to a series of follow-up actions based on their recommendations, so that their positive aspects can be strengthened and problems corrected; and

- Strengthen the rule of law through efforts to reduce corruption levels and strengthen the justice system. Although Colombia has made important progress in these areas, additional efforts are needed, which are beyond the scope of this report.

6.59 Efforts to reduce informality would also benefit from improved information and education campaigns and programs in several areas:

- On the worker side, this would include information campaigns aimed at disseminating information on the role and availability of key social protection programs, the benefits they bring as well as the procedures to access benefits and services, and more generally the relative benefits available to workers in formal employment.

- On the firm side, this would include information campaigns to present information regarding the process of formalization and the benefits of formality; including details on the benefits of Laws 590 and 904, Government programs available to those that formalize (e.g., credit, training, etc) as well as
the broader benefits associated with formalization, in particular in terms of greater access to productive inputs.

• More generally, there is also an important role for educational programs that explain the role and importance of tax revenues for the country’s development. This should be coupled by clearer communication of how people’s taxes contribute to broader economic and social development. Such initiatives would help to build trust in Governmental actions in the long term.

6.60 Alongside efforts to increase workers’ and firms’ faith in government in the long-term, there is a need to continue to strengthen the Government’s enforcement capacity in the short-to-medium term. Several mechanisms for doing so, including improved information sharing across government institutions, and improved auditing of large firms that have contracts with the government, are discussed below.

• Improved identification of concentrations of informal activity. There are two ways in which geographic concentrations of informality can be identified. The first is based on conventional wisdom, in the sense that the general population often has a good idea of where – and in which type of enterprise – informal activities are concentrated. The second is based on firm-level censuses.\(^{103}\) The identification of the concentrations of informal activities is important, given that networks of informal enterprises are organized within such concentrations. Once these concentrations are identified, enforcement efforts, on one hand, and support for firm formalization, on the other, could be addressed directly.

• Information sharing among government institutions. Effective controls on informality depend on cooperation among government entities. For instance, institutions such as the Social Protection Ministry, the Secretarías de Salud, the Chambers of Commerce, and the National Direction of Taxes and Tariffs (DIAN), should be part of this initiative. In particular, sharing and exploitation of administrative data systems to enable more effective and targeted control and enforcement activities of different levels of Government, both on individuals and firms. The inter-connectivity of the information systems that manage administrative tax registries, registries and payments of social security contributions (PILA, RUAF, DIAN) is a critical element of this effort;

• Audit large firms. Informality among large firms is no longer part of the natural development of businesses. For this reason, controls and punishments of large informal firms are needed to prevent this type of practice. One way to achieve this is by revising the data on government contracts to identify firms that show fiscal inconsistencies or whose employees are not affiliated with social security.

• Resolve real or apparent inconsistencies in government regulations, that either create confusion among firms which otherwise might register, or that provide loop-holes for firms looking to evade. Santa María and Rozo (2007) have identified some contradictions in government regulations related to support for small firms and informality reduction. For example, there are contradictions between Law 590 of 2000 and Law 905 of 2004 related to the types of firms that are eligible for benefits. These laws should explicitly state that only firms with a valid registration will receive these benefits. Another contradiction has to do with the recent creation of apprenticeships among SENA students. As is well known, firms contribute to financing SENA training programs through taxes. However, firms complain that in addition to this monthly contribution they are obliged to employ students from

\(^{103}\) Cali’s Chamber of Commerce already developed such initiative. It has proven successful in identifying the necessary information to enable implementation.
SENA and pay them a salary even when they are not trained to do work the firm needs. The recommendation here is not to eliminate the apprenticeship program, but to strengthen it so that students are sent to firms where their abilities and training can be helpful for productive activities. Another option could be to provide fiscal benefits to firms that hire SENA students. The evidence suggests that the benefits arising from this program are higher than the costs; but further analysis is needed to improve the program’s effectiveness.

In particular, non-compliance with Article 43 of Law 590 should be resolved. The article establishes that small firms can pay their payroll taxes over time; however, this has only been applied in a few cases, given that neither small firms nor public employees have the relevant information. In addition, the recently introduced Integrated Contributions Payment System (Planilla Integrada de Liquidaciones de Aportes, PILA), which integrates social security contributions, does not give the option for small firms to pay contributions gradually. Thus, it may be useful to modify the PILA so that small firms could benefit from the program.

Conclusion

6.61 This chapter has examined how public policies in Colombia can be used to increase worker welfare and improve firm-level productivity in the face of high and persistent informality. The chapter focused on three main areas of policy that were highlighted in the earlier parts of the report:

- Enhancing workers’ welfare through greater human capital, intermediation services, and social protection coverage;
- Increasing productivity, through measures to promote firm formalization and development; and
- Enhancing regulatory compliance, through stronger government institutional and enforcement capacity.

6.62 The chapter also developed lines of policy in these three areas that were consistent with Colombia’s long-term vision of a better functioning labor market, improved economic opportunities for workers and firms, and progressive formalization of the economy; and with its long-term commitment to strengthening the business environment, improving economic productivity and growth, improving workers’ welfare, and reducing poverty. It is recognized that many of the policy actions required to fulfill these longer-term goals may take time to put into place – for both technical and political reasons. For this reason, the chapter has focused to a relatively greater extent on specific short to medium-term actions that can help move Colombia towards its long-term goals.

6.63 The lines of policy and specific proposals presented here have built directly on the evidence and analysis in the report. They have also built on several other important influences, including a recent World Bank region-wide study on informality (Perry et al 2007), a region-wide study of social protection, and concrete policy lessons both from Latin America and the OECD. Perhaps most importantly, the chapter has sought to build on the very rich analytic process and policy dialogue that has taken place in partnership with Government counterparts and Colombian policy researchers, as part of the larger informality study process.

6.64 This report has also highlighted the need to further analyze and explore of series of issues, with a view to propose specific options for public policy in the coming years. The first core item on this analytical agenda is the assessment of the functioning, efficiency, relevance and effectiveness of services that are provided by the entities funded through parafiscal-financing (including the severance funds, training institute, family and child welfare institute, and workers clubs). This will be a core element of the process of un-bundling of services, and of the process of improvement of the efficiency of service delivery. The second core item on the agenda relates to the analysis of the costs and benefits of different
approaches to the universalization of health insurance and the mechanisms to finance the health system, in light of the size of the coverage gap, the design and cost of the health benefit package, and the demographic characteristics with their expected changes. The discussion about the definition of an essential health benefit package for all citizens has been given a particularly urgent character by the Constitutional Court recent judgment.

6.65 The lines of policy presented in this chapter are intended less as a specific blueprint for Government action, and more as the basis for an expansive dialogue on informality, to enable the counterparts to identify the most appropriate and effective ways forward. Some of the policy lines – most notably, moving toward a system of social protection that is de-linked (at least partially) from the labor contract – are long term policy reforms which are traditionally outside of the traditional frame for thinking about social protection in Colombia. But moving successfully toward universal coverage amid high and persistent informality will require bold thinking, and consideration of new ways of dealing with old problems. In this context, it is hoped that this chapter – and the report more generally – provides the basis for a constructive and ever more specific dialogue on informality and public policy in Colombia, one that leads to the development of an effective set of policies for raising worker welfare and firm productivity.
References


Fiess, Fugazza and Maloney (2002)


To complement the information obtained from quantitative surveys, a qualitative assessment with formal firms was carried out in Bogota and Medellin. The perception that entrepreneurs in the formal sector have about informality is important for two reasons. First, as previously mentioned, informality generates serious problems of unfair competition for the entrepreneurs in the formal sector. Second, as described in the chapter, informality is a natural component of the development of firms and, thus, most entrepreneurs in the formal sector once operated informally and managed to overcome their condition. The possibility of identifying which were the causes or circumstances that have led them to become formal can help design policies to reduce the problem’s incidence.

The formal businessmen interviewed belong to the sectors of commerce, industry, and services. Five sessions were carried out for each sector which, on average, had 10 entrepreneurs. The sessions were organized between July and August of 2007 in the cities of Bogota and Medellin. In total 105 entrepreneurs participated in the sessions, among them 34 from the industrial sector, and 40 in the services sector. Participants were asked about the definition of firm informality, about the causes that lead entrepreneurs to be informal, the consequences of informality, the benefits of formality and the possible measures that could effectively be adopted to mitigate the problem.

The data collected from the interviews in both cities allowed to identify six main aspects related to the perceptions of formal entrepreneurs. First, the most common causes of business informality are: (i) unemployment; (ii) high taxes; (iii) weak enforcement by the State; (iv) existence of too many procedures to develop the activities formally; (v) lack of information regarding the process of business formalization; (vi) high payroll costs; and (vii) low trust in the State because of inefficiencies and corruption in public expenditures.

It was also noted that illegal bookkeeping practices and value added tax evasion are common and acceptable practices by formal entrepreneurs. It seems important to conduct information campaigns of formalization of the productive chains in order to reduce such practices.

Third, it was noticed that registration is not an obstacle for firms anymore (in the cities surveyed). In particular, the entrepreneurs are aware that this process has been facilitated with the creation of the Centros de Atención Empresarial (CAE) by the Chambers of Commerce. However, it has been emphasized the difficulty to develop the subsequent procedures in the process of formalization (i.e. payment of taxes before DIAN). More specifically, entrepreneurs claim that the most costly and tricky step is to bring employees to formality (affiliate them to social security and pension schemes). As such, the CAE are expected to be maintained and the efforts should be directed towards simplifying the procedures following the business registration.

Fourth, it was found that new firms face serious problems to keep their employees affiliated to the ARPs, the EPS, and the Cajas de Compensación (workers’ compensation agency). Businessmen emphasized that actions should be directed towards solving that problem, once it represents an institutional restriction to the labor formalization.

Fifth, among the benefits for developing activities in the formal sector, entrepreneurs identified: (i) confidence in dealing with the authorities; (ii) greater access to markets (finance, large firms, government,
exports); and (iii) the possibility to offer guarantees to their clients. Information campaigns should emphasize these benefits.

Finally, among the policy recommendations aimed at reducing the level of informality, participants suggested: (i) to support clustering and associations in order to increase rates of survival of formal firms; (ii) facilitate tax payments; (iii) promote educational campaigns to stimulate culture of formality; and (iv) create mechanisms that show transparency in public expenditures.