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INFORMALITY IN COLOMBIA

Enhancing Worker Welfare and Firm Productivity

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ABBREVIATIONS AND ACRONYMS

BEPs	<i>Beneficios Económicos Periódicos</i>
CAES	<i>Centros de Atención Empresarial</i>
CCFs	<i>Cajas de Compensación Familiar/Mutual Benefit Societies</i>
CCT	Conditional Cash Transfers
CIDER	Interdisciplinary center of Regional studies
CONPES	<i>Consejo Nacional de Política Económica y Social</i>
DANE	Departamento Administrativo Nacional de Estadística
DIAN	National Direction of Taxes and Tariffs
DNP	National Planning Department
ECH	<i>Encuesta Continua de Hogares</i>
EPS	<i>Entidades Promotoras de Salud</i>
GDP	Gross Domestic Product
GEIH	<i>Gran Encuesta Integrada de Hogares</i>
ICBF	National Childcare System
IMSS	<i>Instituto Mexicano de Seguro Social</i> (Mexican Social Security Institute)
ISS	<i>Instituto de Seguro Social</i>
MHCP	Ministry of Finance and Public Credit
MSMES	Micro, Small and Medium Enterprises
OECD	Organisation for Economic Co-operation and Development
SARE	Sustainable Agriculture Research and Education
SENA	<i>Servicio Nacional de Aprendizaje/National Training System</i>
RAU	Unified Farming Regime
RTI	Integrated Tax System
RTS	Simplified Taxing Regime
SISBEN	<i>Sistema de Selección de Beneficiarios</i> (System of Beneficiary Selection)
SMES	Small and Medium Sized Enterprises
SISBEN	<i>Sistema de Selección de Beneficiarios</i> (System of Beneficiary Selection)

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Executive Summary

Introduction

Informality is currently a hot issue of debate in Colombia, both among policymakers and civil society. 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 policy makers as well as in the daily newspapers. The debate about informality in Colombia 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, there is renewed sense of urgency about the debate at present, as there is a sense that a better understanding of worker informality will help contribute to more effective social policy, while a better understanding of firm informality will help contribute to better economic policies to foster greater economic productivity and growth. Both greater economic productivity and growth in Colombia, on one hand, and more effective social policy, on the other, are seen as key elements of a more effective and sustainable poverty reduction strategy for the country.

Given current attention and concerns about informality – and what it implies 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 better understand the size and nature of the informal sector, the factors contributing to informality – both on 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 collaboration involving participants from DNP, Colombia's statistical agency, DANE, Colombia's Ministry of Social Protection (MSP) and Ministry of Finance (MHCP), as well as from private think tanks and universities in Colombia, including Fedesarrollo and the University of Los Andes. The process has included World Bank support on the design of an enhanced survey instrument to facilitate the availability of new and richer data 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 partnership.

The main objective of the study is to support the Government of Colombia in raising worker welfare and firm productivity through a better understanding of the nature, causes, and consequences of the informal sector. To do so, the report focuses on using a consistent analytical and empirical framework to shed light on the following questions:

- What is the size and nature of the informal sector in Colombia, both from the perspective of workers and from the perspective of firms?

- Why are workers informal and what does informality implies for worker welfare?
- What are the links between worker informality and social policy – both from the perspective of how informality affects worker welfare and from the perspective of how social policy affects informality?
- What are the causes and consequences of firm informality?
- And, 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?

The study draws on several new and recent sources of quantitative and qualitative data to provide a deeper, more nuanced analysis of informality in Colombia than has been available previously. This includes analysis based on new household survey data collected by the Colombian Statistics Department, DANE, on informality as part of Colombia’s 2006 integrated household survey, *Encuesta Continua de Hogares* (ECH). This 2006 ECH includes a new chapter on informality developed in collaboration between the World Bank and several Colombia stakeholders, including DANE, DNP, MSP, and private sector researchers. It also draws on firm data from several enterprise surveys, including the 2001 *Encuesta 123* and several Micro-enterprise surveys carried out by DANE between 2000 and 2003. Finally, the study supplements the quantitative analysis with qualitative data collected on worker informality through focus group and key informant interviews carried out by a team of researchers from the University of Los Andes.

Conceptual Framework

The report adopts a conceptual framework that was developed by the World Bank and presented in a recent study of informality in Latin American and the Caribbean: *Informality: Exit and Exclusion* (Perry et al 2007). The framework focuses on informality as a function of both “exclusion” and firm and worker “exit” from the formal sector. The concept of “exclusion” reflects the traditional way that people have thought about informality in Latin America. The exclusionary view posits that, in general, workers and firms in the informal sector would prefer to be formal (registering with the state, paying taxes, affiliating with social security, etc.), but for reasons related to the state of the economy, the functioning of labor market, or the regulatory environment, they are prevented from doing so. The concept of “exit” posits that at least some of those in the informal sector are there as a matter of choice. Specifically, some workers and firms, upon making some implicit or explicit assessment of the benefits and costs of formality, choose to opt out of the formal sector. Given existing opportunities and constraints, they actually prefer informality.

As is discussed in the report, the data indicate that a framework focusing on both exclusion and exit captures reality better than the traditional framework focused on exclusion alone. This is also important for policy. By thinking in terms of exclusion *and* exit, policymakers can better design policies both to reduce exclusion and to discourage

exit (e.g., by working to alter the relative benefits and costs of the formal versus informal sectors). In doing so, policymakers can be more effective designing policies and programs to raise workers' welfare and firms' productivity.

Measuring Informality

Finding a suitable measure – or measures – of informality in Colombia is a challenging enterprise, since the literature contains a number of different definitions and measures that one could choose from. For example, different measures of informality attempt to capture the share of the labor force in self-employed activities, the share of workers working in enterprises below a certain size, the share of the labor force not covered by a pension scheme, the percent of sales that go unreported, and the size of the shadow economy. Most measures focus on and capture a particular dimension of a rather complex, multi-dimensional issue, although some attempt to capture several different dimensions at once. Some measures are based on stronger assumptions about the nature of informality than others, and each has its strengths and weaknesses. How best to measure informality is, thus, to some extent a function of the specific facets of the issue with which one is concerned.

The most commonly used measure in Colombia 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”. An underlying assumption of this definition is that people working in small or household-based production units generally face more precarious or “vulnerable” employment situations than those in larger firms or enterprises. This definition also assumes that informality in medium- and large-sized is quantitatively insignificant. Both of these assumptions are, at least in principle, empirically testable and are examined in detail in this report. Moreover, given its strong assumptions about the precariousness of informal work, the definition sheds little light on why people may be informal. This, too, is examined empirically in the report, as it is clear that the welfare of a worker in a small enterprise could differ significantly depending on a number of factors, including whether they are informal as a result of exclusion or exit.

This report is concerned with how to enhance worker welfare and firm productivity in Colombia through increasing workers' and firms' access to the public goods and services. The measure that has commonly been used in Colombia is of limited help in this regard, as it does not address directly either workers' or firms' relation to the State or their access to public goods and services. For the purposes of the report, therefore, additional measures of informality are selected that more directly capture the extent to which firms or workers are linked to the State and/or to relevant public goods and services. Such measures are useful in the sense they establish a closer link between the analysis of informality and the appropriate policy levers to address it. Building on analysis of household and firm survey data by Colombian policy researchers, as well as on consultations with Government of Colombia counterparts, this report focuses on two primary measures of informality, one related to workers, the second related to firms. Specifically:

- A *worker* is considered informal if he or she does not make contributions to Colombia's contributory health insurance and pension programs.
- A *firm* is considered informal if it does not undertake certain obligations to the State, for example, undertaking commercial registration, pay taxes, or paying social security contributions on behalf of its workers.

Other measures of informality, including the traditional Colombian/ILO measure, are compared with these selected measures to show explicitly how different measures compare. In fact, most measures produce reasonably similar estimates of informality in aggregate – although which individuals are identified as informal differs somewhat across measures. This helps to highlight the importance of the selected measures for policy purposes – particularly if the Government were to want to target interventions. Complementary measures of informality are also used in the report to facilitate assessment of informality in Colombia in the international context.

Worker Informality

Worker informality is high in Colombia. The 2006 ECH data indicate that roughly three-quarters of the Colombian workforce (74.2 percent) 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, however. Nearly all self-employed workers and employers at the national level are informal, with informality rates of 95.6 and 90.3 percent, respectively. Informality among employees is considerably lower – but still high – with an informality rate of 56.6 percent. 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 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.

Analysis of cross-country data suggests that worker informality in Colombia is high by international standards – at least in relation to the country's level of per capita income. Cross-country data show a consistent inverse relationship between countries' GDP per capita and levels of informality. As countries' income levels rise, informality tends to fall. These patterns hold regardless of the measure used. In that context, cross-country data show that worker informality is higher than would be expected, given its level of per capita GDP. Analysis was undertaken both using data for Latin American and global data, defining informality as the lack of pension coverage (the closest internationally comparable measure to that used for the report). While within Latin America context Colombian informality is only slightly higher than would be expected given its GDP per

capita, the global numbers are more dramatic. Specifically, when viewed from a global perspective, informality in Colombia about 20 percentage points than would be expected given its income level.

Who are informal workers? Several sets of factors are closely associated with being an informal worker in Colombia. Perhaps the most important factor is the workers' education level. Specifically, the likelihood of a worker being informal declines significantly with higher education. Similarly, informality is closely and negatively associated with earnings levels; the likelihood of being informal declines significantly as earning levels rise. While the associations with education and earnings are strong, it is important to point out that informality is *not* solely a function of low education or incomes in Colombia. Indeed, the phenomenon is widely distributed across the workforce. Forty-two percent of college graduates and 49 percent of workers in the wealthiest quintile work in the informal sector. 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 an important factor associated with informality – although the nature of informality differs substantially across the lifecycle. Young people commonly start their working lives as unpaid workers or informal employees. As they get older and gain more experience, young workers often 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.

Why are informal workers informal? The evidence points to both reasons of exclusion and of exit. Analysis of wage and employment trends suggest that segmentation in the Colombian labor market serves to ration many workers who would otherwise like to have formal salaried employment out of the formal sector. This “exclusion” from formal sector jobs is reflected in self-reported data 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”. At the same time, a significant proportion of workers – particularly 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 in terms of their earnings. Consistent with this, 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 flexibility, or because they want to run their own firm and/or be their own boss.

What is known about informal workers' welfare? Despite the considerable share of workers in the informal sector for reasons of exit, the evidence suggests that policymakers do have well-justified concerns about informal sector workers' welfare, at least on average. A range of possible indicators of welfare suggests that formal workers and, in particular, formal employees, have higher average levels of welfare than informal workers. Comparisons of earnings suggest that formal workers tend to have higher

earnings than informal workers, even accounting for differences in education. Such comparisons need to be interpreted with caution, however, as unobserved factors could affect that finding. Moreover, there are noteworthy exceptions to that pattern, as some informal self-employed workers are actually among Colombia's highest earners. Nonetheless, earnings figures are consistent with other potential measures of well-being. Formal employees report the highest levels of job satisfaction, controlling for other factors. Formal workers also tend to report less desire to change jobs than do informal workers, whether related to the desire for higher incomes, more permanent work arrangements, or greater job stability. And when it comes to the satisfaction with job-related benefits, the analysis indicates that at least some informal workers would be willing to pay to access social security if they could.

Are informal workers always informal? Traditionally, it has been assumed that informal sector workers tend to stay informal, and that worker mobility is extremely limited. New evidence raises questions about this characterization, however. First, evidence on labor market movements over the lifecycle suggests that workers often go through phases of informality and formality according to the stage of their working lives. Second, evidence on shorter-term work transitions suggests that Colombian workers experience a fair degree of movement in and out of the informal sector. 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. Among rural workers movement is also considerable; for example, over 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 current informal workers came to that work from a job in the formal sector. Still, it is worth noting that worker movement across jobs *within* the informal and formal sectors appears to be higher than movements from one sector to another.

Worker Informality and Social Policy

There is a two-way relationship between worker informality and social policy in Colombia. On one hand, informality implies that workers lack access to formal risk management instruments that can help provide protection against health shocks and poverty in old age. As will be seen below, this lack of access is particularly important in the context of old-age income security. On the other hand, the design and implementation of some social policies and programs themselves appear to contribute to higher levels of worker informality – even if inadvertently – making the lack of access to social protection more acute than it would have been otherwise. This two-way relationship is examined in the report to better understand how to ensure better social protection coverage to uncovered workers. To do this, the report presents new empirical evidence on workers' demand for social protection, actual coverage of health insurance and pensions, and people's willingness – and ability – to pay for social protection (given that working in the formal sector implies making payroll tax contributions in return for protection). It also examines the extent to which lack of adequate information affects workers' demand for and access to social protection. The report also analyzes the extent to which selected social policies – including minimum wage policy, high non-wage costs

of formal employment, and the design of social protection itself – affect worker informality.

While no single measure in the 2006 ECH captures fully worker demand for social protection, several indicators point to significant demand for social protection services on the part of both formal and informal sector workers. For example, roughly 22 percent of formal sector employees report that their main motivation for being employees (as opposed to being self-employed) relates to the availability of social security benefits. Perhaps more strikingly, over a quarter of all informal self-employed workers – and more than one-third of informal self-employed workers in the poorest quintile – report that they would be willing to accept a lower wage in return for salaried employment *with benefits*. Another quarter of informal self-employed workers report they would be willing to work as an employee with benefits for the same wage. All-in-all, more than half of all informal self-employed say they would be willing to give up their independent status to have access to social benefits. The data suggest that informal salaried workers also value social benefits. Estimates of “income compensating differentials” suggest that informal salaried workers value benefits at between 7 and 17 percent their salaries, on average.

Qualitative evidence, based on focus group and key informant interviews, provide some nuance on the nature of demand for social protection in Colombia, particularly among low-income workers. Most notably, while low-income workers generally place a high value on having social protection in health, their views about the value of pensions is more mixed. For example, while respondents express an understanding of the “importance” of having old-age income security, many also expressed a preference for current as opposed to future benefits and services. In this context, some respondents highlighted the desire to see more flexibility in social protection instruments that would give them access to saving in the short- as well as long-term and that took account of variability and/or seasonality of workers’ income streams. Some interviewees also expressed a lack of confidence in the State and, specifically, concerns about whether pension contributions made now would actually be available to them far out in the future when they stop working.

The 2006 ECH data also show significant differences in the level of health and pension coverage (that, interestingly, are consistent with worker preferences expressed during the focus group and key informant interviews). Just over 80 percent of the working age population is covered by some form of health insurance – about half by the contributory social security program (either as direct contributors or beneficiaries) and the other half by Colombia’s subsidized regime, the *Regimen Subsidiado*. In addition to relatively high levels of coverage, health coverage is also fairly evenly distributed across categories of jobs and workers. Even informal workers and their families experience coverage rates of upward of 72 percent as a result of the *Regimen Subsidiado*. High health insurance coverage stands in stark contrast to low pension coverage; only around 29 percent of the working age population reports being covered. Moreover, there are dramatic differences in coverage across job and worker categories. While formal sector workers experience full coverage (according to the definition of worker informality), informal workers are almost completely uncovered. Indeed, only around 8 percent of informal employees, the most covered sub-group of informal workers, report having pension coverage.

Among those not covered by pensions or health insurance, the issue of workers' ability to pay appears to be of central importance. Nearly 70 percent of all informal workers and over 80 percent of workers in the poorest quintile report that 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. In the case of 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 do not do so because they are already covered, either as a beneficiary (dependent) of a contributing worker or by the *Regimen Subsidiado*. At the same time, among those who are not covered, the largest single reason that workers report is that they cannot afford the contributions. Roughly 58 percent of all uncovered workers – and 73 percent of uncovered workers in the poorest quintile – report that the main reason they do not contribute to health insurance is that they cannot afford it.

The focus group and key respondent interviews also indicate that lack of information and knowledge about social protection programs plays an important role in workers' lack of access to risk management instruments. Indeed, low-income, informal workers interviewed tended to demonstrate a low level of functional knowledge about social protection programs and the procedures and processes necessary to access them. In general, informal workers' knowledge on health insurance is better than that on pensions, reflecting in part their greater exposure to and participation in health insurance programs via the *Regimen Subsidiado*. Not surprisingly, workers' functional knowledge appears to be positively associated with workers' education and income levels. Indeed, workers with higher levels of education and/or with higher incomes demonstrate clearer and more detailed understanding not only of Colombia's social protection system, but of their broader rights and entitlements as workers.

While informality clearly affects workers' access to social protection – particularly related to old-age income security – the evidence also indicates that the design and implementation of certain social policies contribute to informality in Colombia, even if inadvertently. The evidence shows, for example, that high minimum wages and high non-wage costs are important segmenting forces in the Colombian labor market and, as such, they contribute to higher levels of informal employment than would otherwise be the case, by rationing out of the informal sector some workers who would prefer to be formal. In other words, high minimum wages and high non-wage costs contribute to informality via the route of “exclusion”. At the same time, several features of the design of social protection affect the relative benefits and costs of social security that informal workers perceive. In doing so, they appear to affect some workers' decisions about whether to be formal or not. Specifically, by affecting the net benefits that workers' see, some features of Colombia's social protection system appear to contribute to informality via the route of “exit”.

Several specific features of the design of social protection seem to affect workers' incentives to be formal. This includes 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. Design features of contributory health insurance program that require secondary household workers to pay for benefits they already received as dependents also serve to reduce the value-for-money workers perceive with respect to participating in formal social security. Similarly, while Colombia has greatly expanded health insurance coverage via the *Regimen Subsidiado*, the fact that poor workers can gain access to health insurance for free appears to dull some workers’ incentives to become formal, resulting to higher informality, at least at the margin. Finally, specific design features of contributory health and pension programs that do not account well for labor mobility in and out of the formal sector raise the perceived costs and lower the perceived benefits of formality for many workers. For example, long vesting periods make it difficult for mobile workers to achieve the contribution history necessary to access a pension. This serves to reduce workers’ incentives to contribute to the pension system and, more generally, reduces the expected benefits associated with workers’ participation in formal social security.

Firm Informality

Evidence from two different firm surveys, the *Encuesta 123* and the Micro-enterprise Survey, indicate that the firm informality rate is around 46 percent in Colombia, when informality is defined in terms of firms not registering with the commercial registry (a measure that some experts argue is the single best proxy for firm informality in Colombia). Nonetheless, measuring informality among firms is a complex task. Indeed, firm informality can be defined in different ways and this can effect ones assessment of the magnitude of the problem. If firm informality is defined at the share of firms that do not pay taxes, then estimates of firm informality using the *Encuesta 123* and the Micro-enterprise Survey would range from 54 to 62 percent; if firm informality is defined as the share of firms that do not make social security payments on behalf of workers, then estimates run as high as 67 to 74 percent – numbers that are much closer to the estimates of worker informality based on workers’ contributions to health insurance and pensions.

Any attempt to generate a single, unique estimate of the magnitude of firm informality in Colombia is complicated by the fact that firms may be considered formal in one dimension and informal in others. While many of the smallest firms may be safely characterized as informal by any measure – 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. For example, many Colombian micro-firms are registered with the commercial registry but do not pay taxes, while others pay taxes but not social security contributions. Simply put, many Colombian firms are formal in one sense but informal in others. To complicate matters, even among those firms that report being in full compliance with government regulations it is unlikely that all of them fully report their sales for tax purposes or that all of them fully observe minimum wages or mandated worker benefits. For example, Colombian enterprises report that about 17 percent of the sales of a typical (registered) firm are under-reported for tax purposes. Similarly, the data indicates that even registered firms fail to pay social security contributions for around 15 percent of their workers.

What kinds of firms and entrepreneurs make up the informal firm sector? Regardless of the specific measure of firm informality chosen, several patterns are clear from the data. Informality rates in Colombia are much higher for smaller firms (which make up 95 percent of all Colombian firms) than for large ones. According to the *Encuesta 123* and the Micro-enterprise Survey, 57 and 60 percent of owner-only firms, respectively, lack a commercial registration; 76 and 56 percent, respectively, do not pay taxes; and 89 and 92 percent, respectively, do not pay social security contributions: figures well above the national averages. Moreover, 2005 enterprise census data from the provinces of Cali and Yumbo show that while informality among large firms is not negligible, it is significantly lower than among smaller firms. Only 9 percent of the large firms in these provinces are not commercially registered, only 6 percent are not registered with the tax authorities, and only 8 percent do not pay social security contributions. By comparison, 36 percent of micro-firms in the same provinces are not commercially registered; 37 percent are not registered with the tax authorities; and 73 percent do not pay social security contributions for their workers.

Informality rates among Colombian firms also vary by the socio-demographic characteristics of the micro-entrepreneurs. For example, older, more highly educated individuals are less likely than younger individuals with lower education 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 education levels of the corresponding entrepreneurs – would stand to benefit more from formalization. The industry, sector and location in which firms operate are also reflected in informality rates. After controlling for firm and owner characteristics, analysis shows that at least in the case of micro-enterprises, the probability of being informal is lower for firms in retail trade than for those in other service sectors and in manufacturing, and it is much higher for firms which do not operate from fixed locations.

The data show that the personal motivations of Colombian micro-firms owners have for starting a business also plays a role in their decision to formalize. Entrepreneurs who opted for entering the micro-enterprise sector seeking more independence, stability, higher income or the continuation of a family tradition show higher formality rates. 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, expect to benefit less from formalization.

What are the main drivers of firm informality? As with many workers, the evidence suggests that firms' decisions to operate in the formal or informal sector and their levels of tax and regulatory compliance are based, at least in part, on some explicit or implicit assessment of the costs and benefits of being formal, taking into account the firms' and entrepreneurs' assets and productivity and the characteristics of the business environment in which they operate. Some of the main private *benefits* of informality include the

avoidance of the costs of tax and social security payments, along with the added flexibility and lower costs resulting from non-compliance with labor market and other government regulations. The main *costs* of informality include the risk of being detected and the expected value of the associated fines and other resulting losses. Within this context, 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 if it leads to firms of sub-optimal size). Other important costs of informality include a more limited access to markets (both for inputs, such as credit, and for outputs) and government services (e.g., contract enforcement and access to support programs for micro-, small-, and medium-sized enterprises, MSMEs). These costs are not trivial and may affect informal firm productivity as well as their ability (and incentives) to expand.

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 and implicit contracts – with a consequently more limited use of formal contract enforcement mechanisms – and their larger reliance on internal sources of finance as well as on 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.

Cross-country analysis also suggests that differences in levels of informality across Latin America can be explained not only by the direct costs and benefits of formality versus informality, but by the *quantity* and *quality* of government regulation. In particular, in countries with stronger institutions and 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 tends to be 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. Colombia is no exception; the models presented in the main body of the report predict very well the level of informality in the country using various measures of governance and selected business environment factors. Overall, these results suggest that improving the quality of governance, namely the prevalence of law and order, together with reducing excessive regulatory burdens on businesses could go a long way in reducing informality in Colombia.

This collection of findings suggest that, not unlike in other Latin American countries, the high levels of micro-firm informality in Colombia are to some extent driven by the presence of low opportunity costs for 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 this context, efforts to reduce informality

policy makers should focus not only on altering the direct costs and benefits of formality but also on the drivers of formal sector productivity, including measures to improve the investment climate and policies aimed at increasing human capital accumulation.

What are the consequences of firm informality in Colombia? Recent policy research on informality in Latin America suggests that widespread informality has the potential to reduce overall productivity – both through static and dynamic channels. 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. In addition, informality could allow low productivity firms to stay in business by means of compensating their higher production costs through the avoidance of taxes and 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. Indeed, formal Colombian firms are acutely concerned with unfair competition from informal sector firms. More than half of formal firms surveyed report that competition from informal firms is among the three most serious obstacles to their operations.

Analysis of micro-enterprises in Colombia indicates that there are indeed important consequences associated with firms being informal. Using a propensity score matching method to compare informal establishments with formal ones, the report shows that while there is one significant advantage of being informal – being able to produce at lower costs – informality generates more costs than advantages in Colombia, as it limits firms’ access to productive inputs such as credit, training, and capital goods, and is associated with more government controls. Moreover, econometric evidence based on enterprise survey data collected by the World Bank indicates that informality has significant negative effects on firm productivity. Specifically, Colombian firms that pay social security contributions for a larger fraction of their employees exhibit higher levels of total factor productivity. In addition, firms reporting a larger incidence of informal payments to government officials in their industries, either to gain access to government contracts or for speeding up bureaucratic procedures are found to operate at lower levels of productivity.

A Way Forward

The report focuses on how public policies can be used to increase worker welfare and improve firm-level productivity in the face of high and persistent levels of informality in Colombia. In doing so, it focuses primarily on three main areas of policy that are highlighted in the earlier parts of the report:

- Ensuring all Colombians’ access to social protection via programs that minimize unnecessary incentives for labor informality;

- Increasing productivity via measures to promote firm formalization and development; and
- Enhancing regulatory compliance via stronger government institutional and enforcement capacity

The proposals presented in the report draw directly on the evidence and analysis assembled for the report, but they are also influenced in important ways by several other sources of information. First, they build on the rich dialogue that has taken place over the last year between World Bank staff, Government of Colombia counterparts, and the Colombian policy researchers as part of the Informality study process. This includes a policy-focused session held in Bogotá in December 2007. Second, the report draws upon the key lessons learned from the recent World Bank flagship report on informality in Latin America and the Caribbean (Perry et al 2007). And, third, the chapter takes into account the lessons and experience of policymakers in other parts of Latin America and in the OECD to support Government of Colombia policymakers in charting an appropriate and effective way forward.

Consistent with the collaborative process that has been undertaken to date, the lines of policy presented in this chapter are intended less as a specific blueprint for Government of Colombia action than as the basis for an expansive dialogue on informality and public policy, one that will enable the counterparts to identify the most appropriate and effective way forward. Moreover, it is recognized that (both for technical and political reasons) some of the actions outlined below – if adopted – would require a considerable time horizon to put in place. For this reason, the report focuses both on delineating a long-term vision and policy agenda in each area as well as a series of specific short-to-medium term building blocks that could help Colombia reach its long-term goals.

Ensuring People’s Access to Social Protection

Evidence indicates that several elements of Colombia’s social policies – including the minimum wage, high non-wage costs associated with formal employment, and the design of social protection – contribute, even if inadvertently, to the country’s high and persistent informality. Colombia’s minimum wage is high by regional standards and these high minimum wages contribute to labor market segmentation, reducing formal sector jobs in the Colombian economy. Colombia’s high non-wage costs – high payroll taxes and *parafiscales* – also serve to reduce formal sector employment, both as a segmenting force and also by affecting workers’ desire to be formal.

Several aspects of the design of social protection itself also serve to reduce the benefits relative to the costs workers perceive regarding formal sector jobs, including:

- the bundling of a multiple benefits in the social security package;
- features of the design of contributory health insurance that requires secondary workers in a family to pay for benefits they already receive as dependents; and

- long vesting periods for pensions and other features that do not account fully for labor mobility across jobs and sectors.

The evidence also suggests that the implementation of parallel contributory and subsidized health regimes creates incentives for greater labor informality, at least at the margin.

Several of these elements of policy interact and mutually reinforce one another. The fact that significant segments of the population remained outside the formal sector, and without social protection, led the Colombian government to look to alternative, non-contributive programs as a vehicle for expanding coverage, particularly among the poor. This has required additional public resources to finance them, which has led to increases in payroll taxes in the form of “solidarity payments” and this, in turn, has created further disincentives for formal employment, both among workers and employers. The result has been a kind of a vicious circle in the Colombian labor market in which high labor costs have induced high informality which, in turn, has increased pressure to finance benefits through higher payroll taxes which, in turn, further increases incentives for informality. The high costs of formality – including payroll tax financed subsidies to non-contributory programs – have also 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.

Beyond concerns about the design and implementation of current (social) policies, several other factors affect workers’ participation in formal social security programs. While public economics provides a clear rationale for public social protection programs – and the data shows that Colombian workers would like better access to risk management instruments – informal workers often lack sufficient functional information about programs and program procedures to make informed choices or, if they have some information, to affiliate to 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.

So what does this imply for efforts to strengthen and extend social protection for workers and their families in Colombia? Given the balance of exclusion and exit in the informal sector, among the most effective ways to support growth in the formal sector would be to address the high minimum wage and high non-wage costs of formal employment – the key segmenting forces in Colombia’s labor market. Indeed, efforts to constrain real growth of the minimum wage over time along with measures to reduce high non-wage costs would make important contributions to promoting increased formal sector employment and reducing the share of workers in the informal sector. Feedback received by the World Bank team during discussions with government counterparts indicates, however, that addressing these two issues will likely to be very difficult in the near-term.

This, unfortunately, limits the degree to which informality can be reduced through labor-related interventions.

The main instruments available to the government in the short-term are, thus, related to strengthening the design and increasing coverage of social protection in the face of continued high levels of informality. Policy approaches to strengthening social protection can take two routes. One route, as discussed above, would involve strengthening the design of existing social protection programs to raise the benefits and lower the costs workers perceive with respect to affiliating to 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 to social protection focused on redefining the nature of social protection to make social protection services more broadly available to people on the basis of a concept of “citizenship” rather than on the basis of the concept of a “worker” narrowly defined (i.e., on the basis of one’s labor contract), and to do so in an “incentive compatible” way. Again, this would involve attention to the incentives generated by the system as a whole to ensure that programs do not generate incentives for informality.

These two routes are not mutually exclusive, but are rather complementary. Indeed, working to strengthen and expand social protection via these two complementary routes in a phased manner seems like a reasonable strategy for Colombia. Specifically, it would enable Colombia to build on recent accomplishments and lessons learned – for example, with respect to extending health insurance to a broad swath of the population – while focusing on increasing the efficiency, coherence, and incentive compatibility of the country’s social protection system. A key question and challenge for the Colombian Government will be in how to do this. Specifically, what are the most appropriate policy instruments – and policy mix – to achieve this? And how can the government most effectively design a transition from the current system to one that more effectively covers the Colombian population? In this context, an important consideration will be how to better ensure the sustainability of program financing and, in particular, how to break out of the vicious circle associated with payroll tax financing of both contributory and non-contributory benefits programs.

Toward Universal Social Protection in Health

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 – whether in terms of labor market incentives or fragmented risk pools – there is a case for moving over the long-term toward provision of a single package of minimum or “essential” health insurance coverage for all Colombians – a package that is de-linked from the labor contract and financed through general taxation. Such a movement would contribute in important ways to greater coherence and incentive compatibility of the health insurance system. It could also contribute, potentially, to the reduction of Colombia’s non-wage costs, by helping to shift away from payroll taxes those benefits and services for which it is not conceptually or operationally essential to link directly to one’s employment.

Based on recent discussions with counterparts, it is understood that the idea of de-linking health (or other) benefits that are now part of the formal social security package from the labor contract is outside the frame of the options that have typically been discussed in Colombia and could possibly be controversial among policymakers. Concerns relate in particular to identifying a consistent and reliable financing source as an alternative to payroll taxes. Indeed, moving to a system de-linked from the labor contract would involve significant changes in the conceptual and operational mechanisms for providing social protection in health, and this would involve many practical challenges. Nonetheless, there are a number of arguments in favor of de-linking the provision of essential cover in health from the labor contract and financing such provision through general taxation. General taxation is potentially a more efficient and equitable financing mechanism for risk pooling. Long-term movement toward general-revenue financing of a basic, universal package would also have the benefit of ensuring that health risks are effectively pooled across the widest possible risk pool. For these reasons, such an approach deserves serious consideration. Indeed, some OECD (e.g., Spain) as well as developing countries (e.g., Brazil) have already undertaken such transformations of their health systems, moving from payroll tax financed to general tax financed systems focused on achieving universal insurance coverage.

Working to achieve universal coverage in health in a way that minimizes incentives for informality – through the de-linking of health system financing from the labor contract – would involve a long-term process of strengthening and transforming the system. This would require the development of a transition strategy that would identify the series of concrete steps required to get “from here to there.” Given the important advances Colombia has made in expanding health insurance coverage over the last decade-and-a-half via the *Regimen Subsidiado*, it would be important that such a strategy both build on the lessons from these accomplishments and identify and address pending challenges. In this context, it is possible to identify several short-to-medium term actions that the Government could take – aimed at increasing the efficiency, the incentive compatibility, the fiscal health, and the regulatory clarity of the system – that would both help Colombia to continue to strengthen its health system and move the country towards its long-term vision. This would include:

- *Continued efforts to promote greater efficiency in the health system*, building on Colombia’s advances over the last 15 years, including such measures as: implementation of a strategic purchasing model and related measures to increase the effectiveness and flexibility of public health entities; within the health system, clarifying the relative benefits and costs associated with both the contributory and subsidized health packages, and strengthening of information and control systems.
- *Rigorous evaluation of the impacts expected from recent changes in Colombia’s health financing structure* that focus on achieving universal coverage through subsidized schemes, including recent increases in health insurance contribution rates under the contributory regime as well as of the creation of a *partially subsidized* health insurance scheme.

- *Strengthening the statutory legal framework regulating the health sector* to ensure both that the institutional arrangements that govern the sector as well as patients entitlements under the Colombian health system are clear to all the relevant stakeholders.

The proposed short-to-medium term actions outlined here would help the Government to consolidate the gains associated with recent health sector reforms and to improve the efficiency of the system overall. Such measures would also go far toward laying the foundation for a transition toward a more effective, integrated, and incentive compatible system of risk pooling to the entire population.

Toward Better Protection against Poverty in Old Age

As in health, there is a case for providing minimum “essential” coverage to the elderly in the form of a poverty-prevention pension – although in this case 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 – i.e., that portion of the population who are no longer able to generate their own incomes – from poverty or extreme poverty. 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 de-linking access to this poverty-prevention pension from the form of the labor contract, and financing it through general revenues. At the same time, 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.

As in the case of health, it is recognized that the policy lines presented here for achieving a more integrated, effective system of old-age income security in the long-run may represent a departure from the way that old-age security has traditionally been thought of in Colombia and, as such, could spark lively debate among the country’s policy makers. As in health, the approach outlined above implies important conceptual and operational changes with respect to providing protection against poverty for the elderly and, thus, implies a number of challenges that would require the development of a well-thought-through and coherent transitional strategy. Moreover, 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.

It is important to note that the Government of Colombia is currently engaged in efforts to strengthen its pension system – through development of a program of “Periodic Economic Benefits” (BEP), a new unified pension administrator, *Colpensiones*, and a new agency to strengthen enforcement of pension contributions (UGPP). The analytical and design process that accompanies these initiatives provides the Government with a unique opportunity to think expansively about the broad parameters of the country’s

system of old-age security. Indeed, current initiatives provide a window of opportunity to undertake a number of short-to-medium term actions aimed at clarifying how best Colombia could move toward a more efficient, incentive compatible, and flexible system of old-age security, that is more effective in the long-run at protecting the elderly against poverty. Key actions in the short-to-medium term would include:

- *Deeper analysis of the factors that have led to low coverage rates not only in the contributory system, but in the subsidized program (Fondo Solidaridad Pensional, FSP). Such analysis would be important not only in strengthening the contributory and subsidized programs, but would enable the Government to avoid existing design problems into the BEP program.*
- *Analysis of options for better integration existing programs and institutions aimed at providing old-age income security, including contributory, subsidized and non-contributory programs, to enable movement toward improved coherence and incentive compatibility among existing programs and between the existing programs and the BEP.*
- *Analysis of the potential for increasing flexibility of the system of pensions and savings for old age, including flexibility of contributions to address short-term constraints among the poor as well as differences in needs and preferences across the lifecycle. This could include, for example, special 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, provisions that have been implemented or are under consideration in other countries in Latin America.*
- *Design and implementation of information and education campaigns to address low levels of knowledge about pensions programs and procedures among workers, especially low-income informal workers with low education levels. Such campaigns should include both basic information on Colombia's old-age security programs and on the benefits of saving for retirement, but also on the procedures necessary to access the available programs and entitlements.*

Unbundling the Multi-Dimensional Benefit Package

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). Some components of the package go directly to the worker and/or their families (e.g., health insurance, pensions, professional risk insurance, and training opportunities), while other components benefits others (e.g., the “solidarity” component of health insurance payments, equivalent to 1.5 percent of the worker's salary, or family and child welfare services provided via ICBF).

While some workers may value *all* elements of the package, others may only value *some* of them. For example, while some workers may value highly the recreational services associated with the *Cajas de Compensación Familiar*, others may not value them very much (or at all). Similarly, some workers may appreciate the opportunity to make solidarity contributions, 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, there may be situations in which workers believe they won’t ultimately receive the benefits that they contribute to, as some low-income, informal workers have reported in the case of pensions.

To the extent that workers consider some components of the package as pure taxes, this can adversely affect workers’ incentives to become formal. Specifically, 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” of what might be called “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 increase the benefits relative to the costs of the social security package, and to 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”.

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. Moreover, this would provide an opportunity to reduce the currently high levels of non-wage costs which, as discussed earlier, is an important segmenting factor in the Colombian labor market.

Increasing Formal Sector Job Opportunities among Young Workers

The data on informality over the lifecycle indicate that young workers have a particularly high likelihood of being informal. While some of this certainly reflects the process of honing and strengthening ones skills, establishing labor market experience, and developing labor market contacts, the data also suggest that such segmenting forces as

high minimum wages and high non-wage costs may have a disproportionate effect on younger workers, even more so for those with low education levels. As noted earlier, among the most effective ways to support growth in the formal sector would be to address directly the factors driving labor market segmentation and exclusion. But, especially to the extent that action on these factors will be difficult in the short-to-medium term, it is worth exploring alternative avenues to improving formal labor market opportunities among young workers, for example, through efforts that support young workers in strengthening their job skills and obtaining solid work experience.

Given the strong association between education and formal employment, among the most important actions the Government of Colombia can take to improve the labor market opportunities for young workers in the long-run is to improve young people's access to quality education at the secondary and tertiary levels. This clearly represents an important medium-to-long term policy agenda, not only in the context of informality, but more broadly. At the same time, for those who have already left the formal education system, there may be an important role for providing opportunities for young people to acquire or strengthen technical and "marketable" skills, via certain types of job training, employment services, and improved access to lifelong learning opportunities.

International evidence on skills training is mixed, but there are some approaches that have seemed to work – or at least show promise – in Latin America. For example, the evidence indicates that youth training programs have often had positive impacts on young people's employment prospects in Latin America. Indeed, evidence from several countries in Latin America, including Argentina, Chile, Peru, Uruguay, and Colombia – show that these "*Jovenes*-type" programs can be beneficial both in terms of employment and earnings. *Jovenes* 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.

The 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. In that context, a promising program appears to be Entra 21, an initiative working to prepare disadvantaged youth for jobs requiring information and communication technology in 18 Latin American countries. The program offers 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 no formal impact evaluation results yet for Entra 21, results monitoring of the program suggests that Entra 21 has improved formal employment opportunities for young workers. Programs like Colombia's apprenticeship program, regulated under the 2002 labor reform, also show some promise. As with Entra 21, recent results monitoring of the apprenticeship program suggests that it has been associated with increased youth employment in formal jobs. In both the case of Entra 21 and the Colombian

apprenticeship program, it would be worthwhile to undertake more rigorous evaluation of the programs' impacts and cost-effectiveness before embarking on a large-scale (and potentially costly) expansion of the programs.

Promoting Firm Formalization and Development

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. Indeed, to the extent that sound macro- and sectoral policies create adequate enabling conditions for sustained formal sector growth, they should also have the effect of increasing the opportunity cost of informality faced by entrepreneurs and workers when deciding whether to move into the formal or informal sectors. As in the case of workers, high non-wage costs of employment generate disincentives to formalization.

In the short-to-medium term, there is an important role for policies aimed at reducing the costs of formalizing, increasing the benefits of formalizing, and improving the availability of information on the benefits associated with being formal. 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, there appears to be scope for expanding the successful CAEs (*Centros de Atención Empresarial*) initiative to all cities in the country. Another impediment to firm's registration is related to the perception of high financial and time costs associated with closing a business in Colombia. This can also discourage firm formalization. In this regard, in 2005 the Colombian Congress approved new legislation 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.

While simplification of firm registration can help surmount one important obstacle associated with the costs of formalization, there are other obstacles that may also need to be addressed. This includes the level and structure of taxation. In this context, adopting simplified tax regimes for small and micro-enterprises can 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.

In addition to reducing the costs of formalization, interventions can also focus on increasing the benefits associated with firm formality. In this spirit, Law 590 of 2000 and Law 905 of 2004 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. A related, potentially productive initiative would be the development and implementation of programs aimed at developing linkages between MSMEs and large firms. 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.

As with workers, the analysis carried out for this report suggests that informal firms often lack sufficient information regarding both the processes associated with formalizing and regarding the benefits of formalization. As a result, there would be gains to the Government undertaking information and education campaigns on two fronts: first, regarding the process of formalization, including information on initiatives to simplify the process of firm formalization and, second, related to the Government programs available to those that formalize (e.g., credit, training, etc) as well as the broader benefits associated with formalization. As discussed previously, informality is associated with limited access among firms to key inputs of production, including access to credit, training, capital goods, and so on. Through clarifying that formality could bring greater access to productive inputs, as well information on how to formalize, such campaigns can contribute in an important way to efforts to increase firm formality and productivity.

It is important to note that while 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, 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. Indeed, as part of the Government of Colombia’s efforts to raise worker welfare and firm productivity through attention to informality, the actions outlined above would benefit from complementary measures aimed at improving the quality of governance and State institutions in general, as well as strengthening workers’ and firms’ confidence in the Government.

Strengthening the Government’s Institutional and Enforcement Capacity

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.

A key objective of the long-term agenda to strengthen the Government's institutional and enforcement capacity would thus be to focus on increasing citizens' trust in the government through measures to improve the rule of law and increase the effectiveness of Government programs. Strengthening the rule of law can be achieved through continued efforts by the Government to reduce corruption and strengthen the country's system of justice. While the country has made important progress in these areas in recent years, the sorts of efforts discussed above to address informality would all benefit from further work and progress in this area. Similarly, efforts to enhance the quality of government services would benefit from a continued strengthening of the Government's commitment and capacity to evaluate the effectiveness of government programs affecting firms and workers. The results to such evaluations should be publicly available and be used the Government to strengthen the portfolio of government benefits and services related to worker and firm participation in the formal sector.

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 on the role and availability of key social protection programs, as well as on procedures for accessing benefits and services. Both on the worker and the firm side, 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: (i) strengthening of information available to specific government agencies' regarding concentrations of informal activity, to enable more effective enforcement and control activities; (ii) strengthening of inter-agency coordination via enhanced information sharing on firms' (and workers') participation in the formal sector, along with compliance with tax and social security regulations; (iii) 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; and (iv) 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.

Conclusion and Next Steps

This study represents the product of a multi-phased process and partnership between the World Bank, the Government of Colombia, and the Colombian policy research community to better understand the issue of informality in Colombia and its implications for public policy. The objective of the study is to support the Government in raising worker welfare and firm productivity through a better understanding of the nature, causes, and consequences of the informal sector. The study draws on several new and recent sources of quantitative and qualitative data to provide a deeper, more nuanced analysis of informality in Colombia than has been available previously. Building on this analysis, and on an ongoing dialogue with Government counterparts and researchers, the study develops several lines of policy intended to

- Ensure that all Colombians have access to social protection via programs that minimize unnecessary incentives for labor informality;
- Improve firm-level productivity through measures to promote increased firm formalization and development; and
- Enhance regulatory compliance through strengthening the Government's institutional and enforcement capacity

While the proposals presented here draw directly on the evidence and analysis assembled for the report, but they are also influenced in important ways by several other sources of information, most importantly by the rich dialogue that has taken place over the last year between World Bank staff, Government of Colombia counterparts, and the Colombian policy researchers as part of the Informality study process. Consistent with this collaborative process that has been undertaken to date, the lines of policy presented in this chapter are intended less as a specific blueprint for Government of Colombia action than as the basis for an expansive dialogue on informality and public policy, one that will enable the counterparts to identify the most appropriate and effective way forward.

The nature of this process and collaboration has already sown the seeds for the next phases of this work. As agreed with the Bank's Colombian counterparts, the next stage of the work will involve discussion and feedback from the Government and the Colombian research team on the findings and preliminary policy messages put forward above and in more detail in the main body of the report. It is envisioned not only that those discussions will provide valuable feedback that the Bank team will use in the revision and finalization of this report, but that the discussions will also provide the foundations for the next phase of strategy and policy formulation for the Government regarding how to raise worker welfare and firm productivity in the face of high and persistent informality in Colombia.

1. Introduction

1.1 Informality is currently a hot issue of debate in Colombia, both among policymakers and civil society. Concerns about Colombia's large and persistent informal sector – and its implications for the countries' economic productivity and for workers' well-being – are now front-and-center in discussions among the nation's key policy makers as well as in the daily newspapers. The debate about informality in Colombia 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, there is renewed sense of urgency about the debate at present, as there is a sense that a better understanding of worker informality will help contribute to more effective social policy, while a better understanding of firm informality will help contribute to better economic policies to foster greater economic productivity and growth. Both greater economic productivity and growth in Colombia, on one hand, and more effective social policy, on the other, are seen as key elements of a more effective and sustainable poverty reduction strategy for the country.

1.2 Given current attention and concerns about the issue – and what it implies 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 better understand the size and nature of the informal sector, the factors contributing to informality – both on 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 – a process that is ongoing. This study is one product of this partnership.

(Why) Should Policy Makers Care about Informality?

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

- *Workers' (and their families') welfare.* Informal workers commonly lack access to a range of formal social protection services and benefits, including health insurance,

pensions, or other formal risk management instruments. This leaves workers exposed to a variety of shocks that can adversely affect their and their families' well-being.¹

- *Firm productivity and growth.* Informal firms may be unable to access credit, larger sales/product markets, and sources of innovation, and those evading taxes may operate at a suboptimal scale. 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.

1.4 These issues have particular salience in Colombia at the moment. Since the economic crisis in 1999 Colombia has been committed to the creation of a comprehensive system of social protection for the country, through which all citizens would be protected against key risks, such as impoverishing health shocks and poverty in old age. High and persistent informality has undermined the government's ability to achieve this commitment through traditional social security programs, and has forced the government to rely on alternative instruments its social protection goals. One example of this is Colombia's subsidized health insurance regime, the *Regimen Subsidiado*, which is targeted to poor, informal workers. As will be discussed later in the study, the *Regimen Subsidiado*, has contributed in important ways to increased 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. Better understanding of the reasons underlying worker informality can thus help Colombian policy makers to clarify this and related questions and to ensure that their social protection policies and programs are effective in meeting their goals.

1.5 With respect to firm productivity, Colombia has seen a rebound of its productive sector over the last several years. Growth rates have exceeded 7 percent, private direct investment has soared, and future prospects look 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. As will be shown later in the report, there is evidence that informal firms in Colombia do have less access to credit, training, and capital goods and, on net, are less productive than their formal sector counterparts. Moreover, formal sector firms do report that their competitiveness is undercut by informal firms operating outside

¹ 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 they may have lower productivity and fewer incentives to invest in human capital and other assets.

the system. In this context, better understanding the causes and consequences of firm informality can help facilitate more effective policies to induce firm formalization and improve firms' access to productivity-enhancing inputs. Further, enhancing productivity among the micro- and small-scale firms may serve to strengthen the link between 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 the 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 the 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 in which high labor costs have induced a high level of informality which, in turn, has raised pressure to finance benefits through increased payroll taxes (which would, arguably, further increase incentives for informality). Better understanding of the nature and impacts of informality can, thus, 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 the informal sector. To do so, 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 the informal sector in Colombia, both from the perspective of workers and from the perspective of firms?
- Why are workers informal and what does informality implies for worker welfare?
- What are the links between worker informality and social policy – both from the perspective of how informality affects worker welfare and from the perspective of how social policy affects informality?
- What are the causes and consequences of firm informality?
- And, 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 study draws on several new and recent sources of quantitative and qualitative data. This includes new household survey data collected by the Colombian Statistics Department, DANE (*Departamento Administrativo Nacional de*

Estadística) on informality as part of Colombia's 2006 integrated household survey, *Encuesta Continua de Hogares* (ECH). This 2006 ECH survey includes a new chapter on informality developed in collaboration between the World Bank and several Colombia stakeholders, including DANE, DNP, the Ministry of Social Protection (MSP) and researchers from the private sector.² It also draws on firm data from several enterprise surveys, including the 2001 *Encuesta 123* and several Micro-enterprise surveys carried out by DANE between 2000 and 2003. Finally, the study supplements the quantitative with qualitative data collected on worker informality through focus group and key informant interviews carried out by a team of researchers at 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 – contributes to the debate in several important ways. For instance:

- *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 in the region is both a function of both exclusion and of “exit”, in which some firms and workers opt 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, potentially effective policy responses.
- *Measurement of informality that is more closely linked to policy.* The traditional definition of informality used in Colombia is based on the International Labour Organization (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 and firm informality.* Building on the availability of a consistent conceptual framework, policy relevant measures of informality, and newly available data, the study commissioned and carried out a richer set of empirical analyses than had been available previously. This includes not only a detailed static analysis of the informal sector, its size, who inhabits it, and so on, but a dynamic analysis of worker flows in and out of the informal sector. The new ECH data also enabled detailed analysis of the reasons workers report for working in the

² For more information on the collaboration, see the section on “Informality Study Process,” below.

informal sector, allowing the study to make inferences regarding the extent to which informality in Colombia is a function of exit versus exclusion. Both the analysis of workers' reasons for being informal and of worker flows help to inform the design of appropriate public policies to address informality.

- *International policy lessons and promising approaches over the short- and long-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 discussion of policy presented in the final chapter of the report recognizes that promising approaches may only be feasible in the long-term. For this reason, to the extent possible, the policy discussion distinguishes between long-term policy objectives and the short-to-medium term measures that would be needed to attain them.

1.10 It is worthwhile noting at the outset that the analysis presented in this report is based on data collected during a period of economic growth. 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 economic “good times” in Colombia. It is important to interpret the results in this context, as some of the findings regarding the size and nature of informality in Colombia could differ from what is presented in this report if, for example, the data had been collected during a time of economic downturn.³

Informality Study Process

1.11 This report is one product of a three-stage process that has involved many actors in Colombia, including from Government, civil society, and the World Bank. The overall process has been intended to develop new data, new ideas, new analysis, new partnerships, and new processes to tackle the issue of informality.

1.12 The process began at the invitation by counterparts at 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. Government actors from several ministries and agencies have participated. While participants from DNP have led the process, there has been close collaboration with the representatives of the MSP, the Ministry of Finance and Public Credit (MHCP), and DANE. In addition to participants from the Government, the working group has included a team of researchers from private think tanks and universities in Colombia, including from Fedesarrollo and the University of Los Andes. The third part of the tripartite working group has included members of the World Bank team, comprising experts in the areas of

³ 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 the trends in various countries.

social protection, labor markets, private sector development, and civil society collaboration. Once the team was assembled, work was carried out in stages, as follows:

1.13 *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 *Encuesta Continua de Hogares* (ECH) that would permit regular tracking of the size, workers' motivations for, the dynamics and welfare implications of formal and informal sector employment in Colombia. The process involved extensive collaboration between DANE, DNP, MSP, researchers from the private sector, and the Bank team to define the additional questions, pilot test them, and implement the modified 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.

1.14 *Stage 2: Analysis.* The objective of this stage was to analyze the new data produced during Stage 1, data from other existing data sets, and from focus group and key informant interviews to deepen policymakers' understanding of informality, its causes and consequences, and promising areas of policy to promote higher welfare and increased 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 on: how best to define informality, the size of the informal sector, the reasons why workers and firms are informal (including the role of public policies, programs and legislation), the welfare implications of informality, and policies and programs that could improve the current situation. This stage also included a series of regular meetings, including Government, 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.

1.15 *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 in December, 2007, with a meeting of the tripartite working group to discuss the preliminary lines of policy emerging out of the report. This session resulted in some useful feedback that has been incorporated into the 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 will thus include a workshop (scheduled for early April, 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.⁴ The results of this policy dialogue will be reflected in a revised (final) version of this report, which will incorporate the lessons from the workshop and stakeholder meetings.

1.16 At the end of the third stage of the process, it is intended that the content of the final report contribute to a fourth stage: that of policymaking in Colombia. Indeed, it is intended that the report 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 policy. While the specific recommendations presented in this report may or may not turn into actual policy – in the end, the specific choices regarding policy will be the Colombians' to make – it is hoped that the analysis and evidence presented here can help to influence the thinking of Colombian policymakers and support them in finding a productive way forward to increasing worker welfare and firm productivity in the face of informality.

Structure of the Report

1.17 This report is organized into six chapters. Following this introduction, Chapter 2 lays out the conceptual framework to be used in the report, discusses how informality will be measured in this report, and places informality in Colombia in a broader, regional context. Chapter 3 characterizes the informal worker and the informal labor market, focusing both on who is informal and why. It also examines the welfare implications of worker informality. Chapter 4 again focuses on labor informality, examining the links between informality and social policy – both how informality affects access to social protection and how social protection and labor policies affect informality. Chapter 5 turns to firm informality, focusing on the extent of informality, as well as the causes and consequences of firms being informal. Finally, Chapter 6 discusses the potential policy implications of the analysis presented in this report. The chapter discusses both longer-term policy opportunities, as well as short-to-medium term measures to increase worker welfare, firm productivity, and the institutional capacity of the State.

⁴ In addition to directly affecting the policy dialogue on informality in Colombia, it is envisioned that the contents of this report will also contribute critical analytical inputs into several CONPESs that are currently being developed by DNP on employment and income generation for the poor and on strengthening social protection policy.

2. Conceptual Framework and Measurement of Informality in Colombia

2.1 To set the stage for the analysis and policy discussions that follow, this chapter: (i) presents the conceptual framework used in the report; (ii) discusses the definition and measurement of informality in Colombia; and (iii) examines informality in Colombia in a regional and global context. Laying out the conceptual framework along with the definitions and measures of informality used in the remainder of the report is important because the framework, definitions, and measures all depart somewhat from those that have been used traditionally in Colombia (and elsewhere in Latin America). This was done, building on recent advances in the literature on informality in the region, and with an eye toward deepening policymakers' understanding of the reasons why workers and firms are informal, as well as to build closer and stronger links between the phenomena of worker and firm informality and the policy instruments that the government has at its disposal to address the issues. The discussion of informality in Colombia relative to other countries is valuable to clarify the extent to which what is observed in Colombia is similar to – or departs from – regional and global patterns.

Conceptual Framework

2.2 The report adopts a conceptual framework that was recently developed by the World Bank and which seems to have resonated policymakers and policy researchers thinking about the issue today in Colombia: that is, the framework of “exit” versus “exclusion”.⁵ The concept of “exclusion” generally fits the traditional paradigm for thinking about informality in Latin America (and elsewhere). Some of those in the informal sector – whether workers or firms – would prefer to be formal – registering with local authorities, having access to social security regimes paying taxes, etc. – but for reasons related to the state of the economy or to the regulatory environment, they are prevented from doing so. These workers or firms are, thus, are “excluded” from formality. But the “exit” versus “exclusion” framework posits that some of those in the informal sector – whether workers or firms – are not paying taxes, not registered, not affiliated with social security as a matter of choice and that, given existing opportunities and constraints, they actually prefer informality. Specifically, 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” (or “opt out”) of the formal system. By thinking in terms of exit and exclusion, policymakers can better design policies both to reduce exclusion and to discourage exit (e.g., by taking into consideration those benefits that workers or firms perceive from their current status). Through focusing on both routes to informality, policy makers can be more effective in raising both people's welfare and productivity.

⁵ This framework is presented in the recent World Bank flagship publication for Latin America, *Informality: Exit and Exclusion* (Perry et al 2007).

Exclusion

2.3 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.

2.4 Over the years, many explanations for the above-market clearing wage have arisen, several of which are worth considering in Colombia today. Because this report is ultimately focused on public policy, this section focuses predominantly on those with clear links to policy. First, wages may be set artificially high via a statutory minimum wage. Colombia has a high minimum wage relative to other Latin American countries,⁶ 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.⁷ This suggests that the minimum wage is set too high to help the poor and may be 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.

2.5 The “wage” may also 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,⁸ for which employers and employees are required to pay the government roughly an additional 55 percent above a worker’s wage in the form of social security taxes, health taxes, taxes to fund other social programs (SENA, 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 a risk on hiring new employees, particularly those with evidence as to their productivity. The latter tend to be the young or female workers who have less labor market experience than older or male workers.⁹

⁶ Cunningham, 2007.

⁷ Arango and Pachon, 2003.

⁸ World Bank, 2005.

⁹ Another possible reason related to firm rather than government action 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 that is above what workers would be able to earn elsewhere under the expectation that workers will work hard (avoid “shirking”) to avoid lose these highly remunerative jobs.

Box 2.1: Non-Wage labor Costs in Colombia

The total wage costs associated with formal employment in Colombia have increased from some 47 percent of the payroll in the 1980s to roughly 55 percent in 2008. Non-wage costs in Colombia include payroll tax contributions used to finance health insurance, pensions and professional risk insurance. In addition, there are “*parafiscales*”, taxes to fund training (SENA) and child and family welfare services (ICBF), and worker clubs (*Cajas de Compensación Familiar*, CCF). Other non-wage costs include set-asides for severance payments, paid vacations, and mandatory bonuses. In the case of workers who earn one minimum wage per month, employers may also be required to pay other non-wage “subsidies”, including for worker transportation and so on. A breakdown of the main non-wage costs follows:

Earmarked Program	% of wage
Pensions	16% (since December 2007)
Contributory Health Regime	12.5% (since January 2007)
“ <i>Cesantias</i> ” (Severance fund)	one month’s wage per year
Paid vacation	half a month wage per year
SENA (training)	3%
ICBF (family and child welfare)	2%
<i>Cajas de Compensación Familiar</i> (CCF)	4%
Mandatory Bonuses	4.2%
Severance payment for unjust dismissals	around 5.2% (after 2002 labor reform)

Source: World Bank, 2005, Law 1122 of 2007, Decree 4982 of 2007.

Note: Some of the non-wage costs can vary according to the wage level and profile of the worker. On average, however, total non-wage costs averages approximately 55 percent as a percent of total payroll.

2.6 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 amount of people, choose to hire workers at the informal sector wage. Here, again, workers have no relationship with the state or access to benefits accessed via the labor market (or via the formal labor contract).

2.7 The state may also establish regulations that, while they may have the best intentions, 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, it may make doing business prohibitively expensive to some firms. Thus, even if those firms wanted to be connected to the state, it would not be viable given their slim profit margins. This may particularly important in the case of small or young firms that operate in a highly competitive environment. In particular, 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.

Exit

2.8 Workers care about welfare maximization, which may or may not be consistent with being registered with the State via one's job or with having access to the public benefits. If people undertake some kind of cost-benefit calculation upon selecting a job, there are several reasons why a 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.¹⁰

2.9 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 very 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. Or, there may be a feeling that the quality of some services offered through formal social security is lower than what could be obtained through other means (e.g., as compared to services offered by private healthcare providers). Low valuation of some benefits may also be due to individuals' "myopic" preferences. As will be discussed further in Chapter 4, many poor Colombians in the informal sector say they need – or prefer to have cash today – than to contribute it toward pension savings for the future.¹¹

2.10 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 – for example, contributory health insurance – are designed such that secondary workers may not value the marginal coverage they get through direct affiliation and, thus, choose to opt out of the system. Moreover, informal risk management – or coping – strategies may sometimes be preferred to more formal State-

¹⁰ Cunningham and Ramos, 2006.

¹¹ Some workers also express concern that they may never get back the money that they would contribute toward formal sector pensions (see Chapter 4).

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, but rather relied on family and friends.¹²

2.11 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, willingly foregoing access to the formal services offered by the State. 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 and have alternative modes of access to State benefits at a lower cost (e.g., SENA services, which are free to any Colombian citizen). 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.¹³

2.12 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 to those who need them most.

¹² World Bank, 2001.

¹³ As will be 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 “exit” of “exclusion”.

Applying the Framework: Heterogeneity among Workers and Firms

2.13 Application of this framework in other countries in Latin America indicates that no single country is characterized purely by “exclusion” or “exit.”¹⁴ Instead, it can be seen that there is a continuum of circumstances in which some segments of the labor force and firm sector are characterized more by exit while others segments are characterized more by exclusion. The question is to what degree is there exit or exclusion, who falls under which category, and how to design policy to improve the situation of each segment of the heterogeneous labor force and firm sector.

2.14 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,”¹⁵ so it will be important to identify which aspects of a job or a firm are more or less formal and why.

Measuring Informality

2.15 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. The most commonly used measure in Colombia 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

2.16 A key assumption underlying this multi-faceted 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, and it is clear that the welfare of a worker in a small enterprise could differ significantly depending on whether they are there as a result of exit or exclusion. This issue is explored further in Chapter 3.¹⁶ This definition also that

¹⁴ Perry et al (2007).

¹⁵ *Centro Nacional de Consultoria* (2007).

¹⁶ Specifically, 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.

informality in medium- and large-sized is either insignificant or inconsequential. This, again, is (and should be) an empirical issue.

2.17 Historically, ILO and related measures have been among most commonly used internationally, there are a number of other that have also been used. Among the most common: the share of the labor force in self-employed activities, the share of the labor force not covered by a pension scheme, the percent 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. Some are based on stronger assumptions about the nature of informality than others, and each has its strengths and weaknesses.¹⁷ How best to measure informality is, thus, to some extent a function of the specific dimensions of the issue with which one is concerned.

2.18 This report is concerned with enhancing welfare and productivity in Colombia through increasing workers' and firms' access to the public goods and services. The measure that has commonly been used in Colombian is of limited help in this regard, as it does not address directly either workers' or firms' relation to the State or their access to public goods and services. For the purposes of this report, therefore, it is useful to identify additional measures that more directly capture the extent to which firms or workers are linked to the State and/or to relevant public goods and services. Such measures are also useful in the sense they establish a closer link between the analysis of informality and the appropriate policy levers to address it.

2.19 Building on analysis of household and firm survey data by Colombian policy researchers, as well as on consultations with Government of Colombia counterparts, this report focuses on two main sets of measures of informality, one related to workers, another related to firms. 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, for example, undertaking commercial registration, pay taxes, or paying social security contributions on behalf of its workers. The sections that follow will discuss each of these sets of measures, in turn.

Informal Workers¹⁸

2.20 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

¹⁷ For a detailed discussion of the commonly used measures of informality in Latin America, see Perry et al (2007).

¹⁸ This section draws largely from Bernal, 2007.

context, a definition/measure that captures workers' access – or not – to basic these basic facets of social security coverage is appropriate. 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 thus 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.

2.21 Bernal (2007) undertakes an extensive analysis of 27 different possible measures of worker informality using the 2006 *Encuesta Continua de Hogares* (ECH), a brief description of which is presented in Box 2.2, below. The author finds that this “health and pensions” definition has a number of benefits, in that it:

- adheres to the basic concept of informality as employment that goes unreported and thus leaves the worker unprotected as it is not covered 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;¹⁹
- is highly correlated with other definitions of informality (e.g., existence of a written contract) without confounding the conceptual basis of the definition;
- requires readily available survey data to calculate, facilitating its use and comparison with other data sources in Colombia²⁰; and
- facilitates international comparisons, given that informality definitions based on social security contributions have been widely adopted in other countries.

¹⁹ 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*).

²⁰ 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 established for identifying possible measures. 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.

2.22 It should be noted that the worker informality measure 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 their own job, or if a person is eligible for a non-contributory benefit in health or pension by virtue of their socio-economic status (SISBEN I or II), then the person as a “worker” would be considered informal, even though they may have links to Colombia's social security or broader social protection system. Further, the “health and pensions” definition does not require ultimate eligibility for the benefit for a worker 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.

2.23 Given that the definition for worker informality used in this study differs from the most commonly used definition in Colombia, it is useful to see how these – and other possible measures – compare. Table 2.1 therefore 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 used by DANE 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

Definition	Share of the labor force ¹ defined as informal		
	Total	Urban	Rural
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	67.5	61.1	86.8
Health and Pensions Definition: individual makes contributions to pensions and health	74.2	68.8	90.5
Pensions Definition: individual makes contributions to pensions	72.5	67.0	89.4
Firm size: individual works in a firm of 5 employees or fewer	51.2	46.9	64.4
Labor contract: individual does not have a written work contract	72.9	67.3	90.2

Source: 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 further details, see Bernal (2007).

2.24 One final point on the definitions of worker informality: While both the ILO/DANE definition and the “health and pensions” definition adopted for 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 variable of interest. In addition, the “health and pensions” definition does not assume implicitly 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 than the ILO/DANE and similar definitions suggest (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 in 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 (%)

Sector	Number of Employees in the Firm				
	1-4	5-9	10-18	19-29	30+
Formal	8.4	6.3	6.9	8.3	68.2
Informal	45.7	12.9	6.3	5.9	12.3
Unpaid	87.7	4.6	0.6	0.2	0.6

Sources: Bernal 2007, World Bank 2007, Perry et al (2007)

Informal Firms²¹

2.25 Measuring firm informality is not a simple task. As suggested above (Box 2.3), firm informality can take many different forms and intensities, and it can hardly be described as a dichotomous condition as it is often characterized in the literature. Specifically, 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.

2.26 This can be seen in the available firm-level data in Colombia. Two different firm surveys in Colombia – the *Encuesta 123* and the Micro-establishment Survey²² – enable one to consider four different possible definitions of firm informality: (i) registration with the commercial registry (*registro mercantile*), (ii) utilization of formal accounting practices, (iii) paying taxes, and (iv) paying worker benefits (i.e., payroll taxes, *parafiscales*). Table 2.2

²¹ Unless otherwise indicated, the results in this section are from Cárdenas and Rozo, 2007.

²² 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]

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 differs, even within the same survey, means that firms may be at once “formal” in one dimension but “informal” in others.

Table 2.2: Share of informal firms using four different definitions

Definition	Share of informal firms	
	<i>Encuesta 123</i> (2001)	<i>Encuesta de</i> <i>Microestablecimientos</i> (2003)
Registered with the <i>registro mercantil</i>	46.2	45.9
Formal accounting practices	56.6	42.2
Pay taxes	62.2	53.5
Pay worker benefits	73.9	67.4

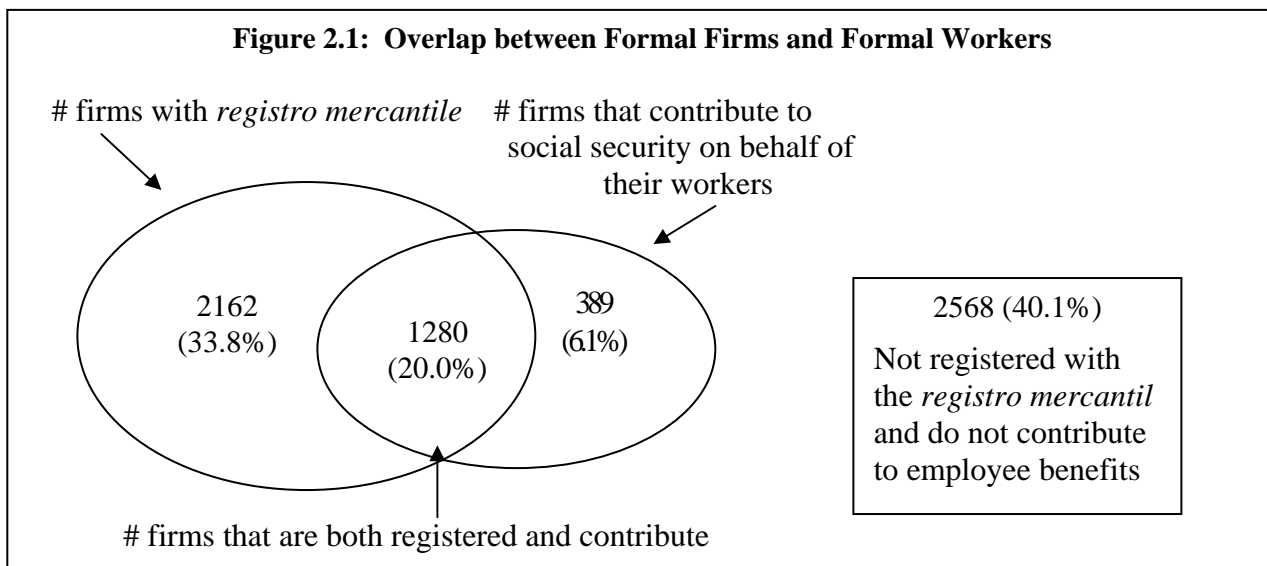
Source: Cárdenas and Rozo, 2007

2.27 As can be seen from 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 in the share of workers who are classified as informal according to the “health and pension” benefits definition discussed above.

2.28 Is there a “best” measure of firm informality? As will be 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 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

2.29 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 mercantil*, 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.²³



2.30 There is a high correspondence between firm informality and informal workers (Figure 2.1). Just over 46 percent of all firms in the *Encuesta 123*, which surveys small firms, are informal (40.1 percent + 6.1 percent in the figure). Roughly 40.1 percent of firms in the survey are informal and do *not* contribute to employee benefits. This is about 87 percent of workers in informal firms can be defined as informal. At the same time, 6.1 percent of the firms in the survey are informal, but actually do pay benefits to their workers. Thus, around 13 percent of informal small firms actually pay benefits for their workers.

2.31 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, over 60 percent of formal firms do *not* pay benefits for their workers. Only around 40 percent of small formal firms are formal *and* pay benefits to their workers, again highlighting that firm formality is not a sufficient condition for worker formality. Moreover,

²³ 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.

the evidence indicates that this phenomenon of formal firms employing informal workers is increasing throughout the Latin America region.²⁴

Colombian Informality in the Regional Context

2.32 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.

2.33 Several cross-country analyses have been undertaken looking 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, while 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 reasons²⁵, 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.

2.34 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.

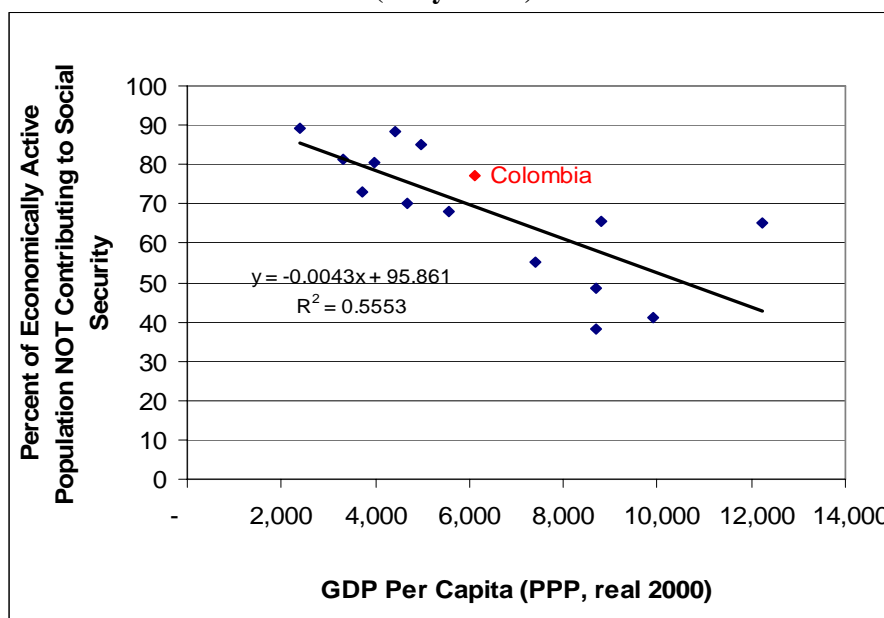
2.35 It is important to note, however, that most measures of informality have significant inverse relationships with per capita GDP (Perry et al 2007). As such, controlling for GDP can help clarify (relative to the raw data) whether Colombia is more or less informal than one would expect, given its level 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

²⁴ World Bank 2007, Perry et. al. (2007).

²⁵ 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).

worker informality seems to tell a slightly different story. As can be seen from Figure 2.2, at least 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 pension coverage, controlling for per capita GDP (Forteza 2007). Indeed, when informality is defined as lack of pension coverage at the global level, informality in Colombia substantially higher – about 20 percentage points – than would be expected given its per capita GDP.

Figure 2.2: Informality in Latin American, by per capita GDP (early 2000s)



Source: Adapted from Rofman and Luchetti (2006)

2.36 Clearly, informality is a complex, multi-dimensional phenomenon, and how one assesses it depends on the dimension on which one is focused. Moreover, regardless of whether Colombia is seen as having slightly or substantially higher labor informality than would be expected, given international norms, there are a number of reasons why policymakers ought to be concerned about informality in the country – related to its potential impacts on worker welfare and firm productivity, and through these factors on economic growth and long-term poverty reduction. In this context, if policymakers are interested in developing policies and programs to address informality, it will be important to understand in more detail who informal workers and firms are, why they are not registered with the State, and what the implications are 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 informal jobs, defined as the job not being formally affiliated with the state, and quantified as the job not paying labor taxes that are earmarked for health and pensions. To better understand the welfare implications of working in an informal sector job and to design policy to improve the welfare of workers, it is necessary to understand who these 74 percent of the labor force are, why they are informal, and how their welfare compares with that of other workers. Empirical work from other countries shows that the informal sector is quite heterogeneous, and that it is useful to understand that heterogeneity to design effective public policies to address informality.²⁶ This chapter focuses on characterizing informal workers and in the informal labor market, using new data on informal and formal workers collected as part of the Colombia's 2006 household survey, the *Encuesta Continua de Hogares* (ECH). The chapter begins by examining who informal workers are. It then analyzes why workers are informal, taking guidance from the exit and exclusion framework presented in Chapter 2. The chapter then examines what is known about informal sector workers' welfare and explores the extent of worker mobility in and out of the informal and formal sectors.

Characterizing Labor Informality by Job Type²⁷

3.2 The literature on informality often speaks about 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 formal and informal sectors: heterogeneity in job types, heterogeneity in people's reasons for being formal or informal, and heterogeneity in the welfare implications of informality. In this context, it is useful to begin by between job categories (or job types), since workers' characteristics, as well as the causes and consequences of informality can differ in important ways across the job-sector nexus. 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 from another 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.

²⁶ 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.

²⁷ This 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.

3.3 So how does informality break down by job type? Table 3.1 presents 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 by region (urban, rural areas). 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. This is plausible since almost by definition unpaid workers would not be expected to contribute directly to benefits financed through the payroll tax system. As can be seen in the table, 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. A relatively 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.²⁸

Table 3.1: Share of Main Job Categories Classified as Informal (2006), using the “Health and Pensions” Definition

	Total Labor Force¹	Employees	Self-employed Workers	Employers
National	74.2	56.6	95.6	90.3
Urban	68.8	49.9	94.4	86.1
Rural	90.5	80.9	99.1	99.2

Source: Adapted from Bernal, 2007

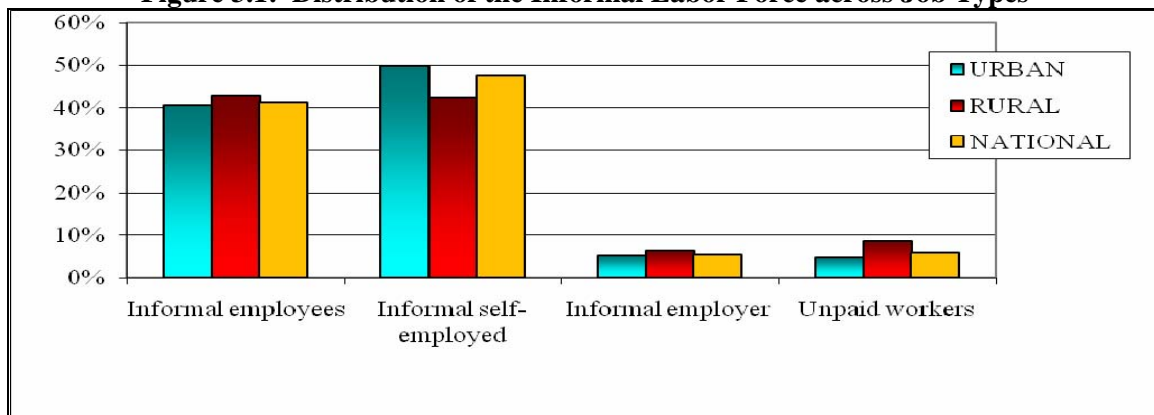
¹“Labor force” is defined here to include employees, self-employed workers, employers, unpaid family workers, and “other” unspecified workers, as reported in the 2006 ECH survey. For further details, see Bernal (2007).

3.4 In terms of composition of the informal labor force, nearly 48 percent of the informal labor force is made up of informal self-employed workers nationally, 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-

²⁸ 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).

employed workers (both formal and informal) make up an additional 37 percent of all workers (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.

Figure 3.1: Distribution of the Informal Labor Force across Job Types



Source: Adapted from Bernal (2007)

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

- 35.3 percent are informal self-employed workers;
- 23.5 percent of 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 details in Chapter 5.

Who Works in the Informal Sector?

3.6 To understand the welfare and productivity implications of working in the informal sector job and to design policies to raise welfare and productivity, it is critical to understand first, who works in the informal sector. This section outlines the key socio-economic factors associated with informal workers.

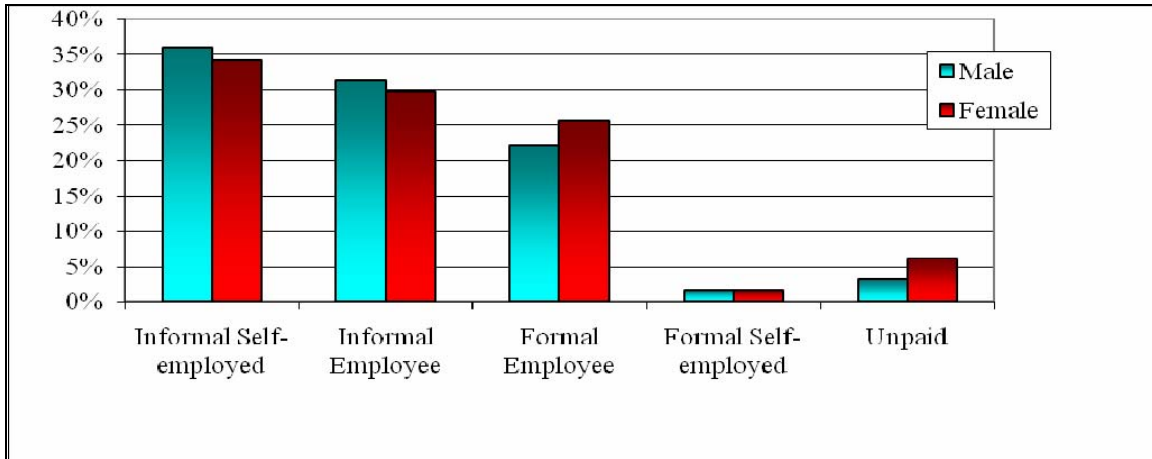
3.7 *Gender.* More men than women work in the informal sector – although in urban areas, women have a higher likelihood of being informal. In most job categories, men make up a larger share of informal workers than do women. Men make up 61 percent of informal self-employed and informal salaried workers, while they make up 76 percent of informal employers (Bernal, 2007). The higher share of men in the informal sector is not very 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 one job category where women hold a higher share is in the unpaid sector, often associated with unpaid family labor; here, women make up 56 percent of all workers.²⁹

3.8 Consistent with this, the distribution of male and female workers across the formal and informal sectors, by job category, is remarkably similar. As can be seen in Figure 3.2, the shares of men and women in each job category are fairly similar, suggesting that neither women nor men are particularly over- or under-represented in any one group. There are some differences worth noting, however. As noted above, working men are more likely than working women to be employed in informal self-employment or as informal employees. At the same time, working women are more likely to be formal sector employees (as a share of their total employment) and as 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 for men (as a share of all male workers) sets Colombia apart from other countries in Latin America, in which the data show that the share of men in formal sector employment (as a share of all male workers exceeds the equivalent share for women (Cunningham 2003).³⁰

²⁹ 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.

³⁰ Although not shown in Figure 3.2, men are somewhat more concentrated as employers than are women (Bernal 2007).

Figure 3.2: Share of Men and Women in Informal and Formal Jobs by Job Type, at the National Level



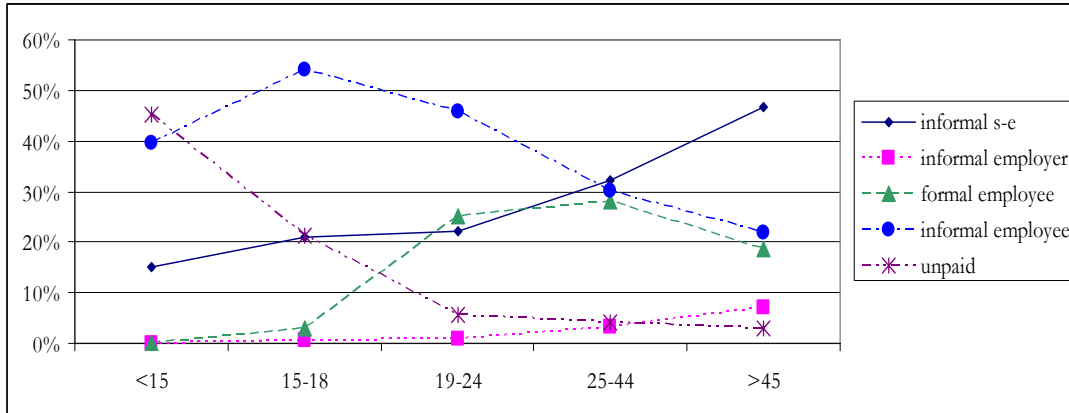
Source: Adapted from Bernal, 2007.

3.9 It is worth noting, however, that national level figures on informality do hide some gender differences in informality that exist in urban areas. Specifically, if one looks at urban areas alone, it can be seen that women have a slightly higher likelihood of being informal than men (Bernal 2007). This is not the case in rural areas, where women and men are equally likely to be informal.

3.10 *Age.* In contrast to gender, the data show a very clear pattern of informal employment by age. Specifically, one can observe a U-shaped pattern of informal employment over the life-cycle. Specifically, 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 often 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 is 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 employment and/or 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.

Figure 3.3: Share of the Workforce across Sector-Job Types, by Age Category



Source: Adapted from Bernal (2007)

3.12 By the time people reach ages 19 to 24, they experience a significant increase in formal wage employment (over 20 percentage points). 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 share workers who are employed in formal wage employment, informal wage employment, and informal self-employment is 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 as well (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).³¹

3.14 This “labor market life-cycle” seen in Colombia, in which there are high levels of informal wage (or unpaid) employment among the young, relatively high formal wage employment among prime-age workers, and relatively high informal self-employment among older workers is a common pattern, seen throughout Latin America, including in Argentina, Brazil, Peru, and Mexico.³² 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

³¹ Not surprisingly, the share of people who work as employers is also highest among older workers (Bernal 2007).

³² Cunningham et al (forthcoming 2008), Perry et al (2007).

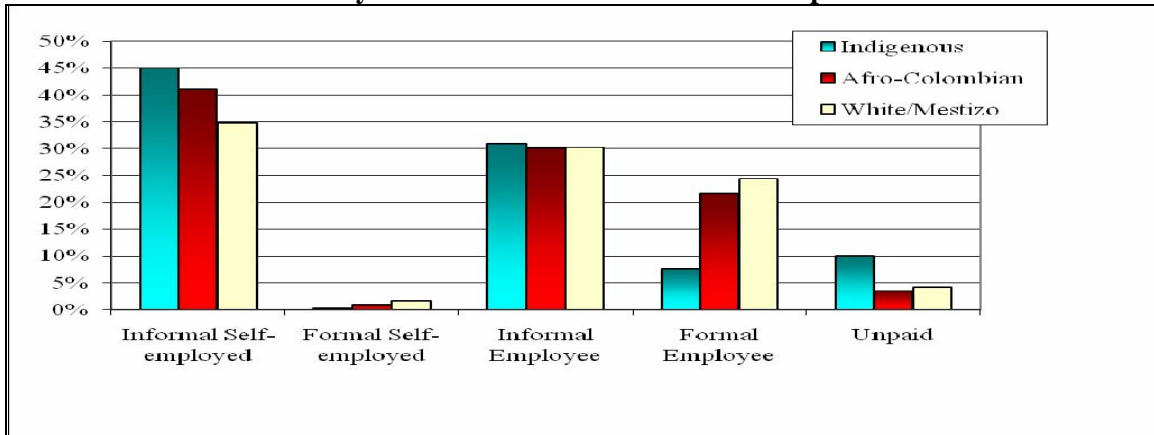
work for family-run firms,³³ then move to informal wage employment where they accumulate skills and labor market connections (perhaps compensating for the poor quality of school-based skills acquisition). They then “graduate” to the formal employment sector where formal job skills, financial capital, and labor market know-how is accumulated and, then, take their experience and accumulated resources from the formal sector and start their own firms.³⁴

3.15 *Race/ethnicity.* The data also indicate that a greater share of indigenous workers is informal relative to either Afro-Colombians or white/mestizo Colombians (Figure 3.4). Nearly half (47 percent) of indigenous people who are working are doing so in the informal sector. This compares to about 38 percent of Afro-Colombians and 36 of workers who identify themselves as either white or mestizo. Indigenous people have the highest rates of informal self-employment, and particularly low rates of formal sector wage employment. As can be seen from the figure, 45 percent of working indigenous people is 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 undertakes salaried employment in the formal sector. In contrast, about one-quarter of working Afro-Colombians and white/mestizo Colombians are formal. Moreover, indigenous workers are twice as likely to work as unpaid worker than do these other two groups. While indigenous workers are disproportionately represented in the informal sector, it should be noted that they only make up a small share of the total labor force and, thus, only a small share of the informal sector.

³³ 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.

³⁴ 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.

Figure 3.4: Distribution of Workforce across Sectors-Job Types, by Self-Identified Racial/Ethnic Group



Source: Adapted from Bernal (2007)

3.16 *Education.* Informality is strongly related to education in Colombia, with the likelihood of a worker being informal declining substantially with education. Indeed, the data suggest that likelihood of being informal is much more closely associated with ones education than with ones innate characteristics such as 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.³⁵ Analysis of transition rates in and out of the informal sector also suggestion 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).

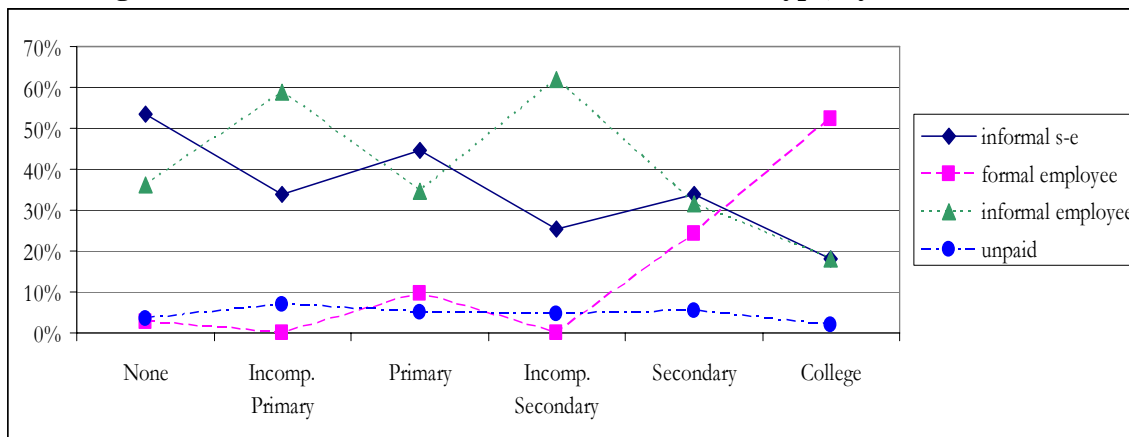
3.17 In terms of the composition of employment across job categories, the share of workers that is informally self-employed falls with successive levels of education, while the share employed as formal salaried workers increases sharply among those who have completed secondary or higher levels of education (Figure 3.5). More than half of those without any education are engaged in informal self-employment. The likelihood of being informally self-employed declines at each higher level of education, however, until fewer than 20 percent of college graduates are employed in this type of job.³⁶ At the same time,

³⁵ 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.

³⁶ 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

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 over 50 percent for college educated workers. As can be seen in Figure 3.5, there is a general downward trend in informal wage employment, by education level. This trend becomes particularly strong at the point where formal wage employment increases, i.e., among secondary school and college graduates.³⁷

Figure 3.5: Distribution across Formal/Informal-Job Type, by Education Level



Source: Bernal (2007)

3.18 The impact of education on informality appears to differ somewhat across urban and rural areas. For example, while the likelihood of holding an informal sector job decreases with successive levels 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 while rural workers with primary or secondary school are less likely than those with no education to work in the informal sector, the difference in the likelihood is very small: less than 1 percent. Once rural workers have college education, however, the difference in likelihood of holding informal job is quite large; rural workers with college-level education are 40 percent less likely to hold than those with no education to hold an informal sector job.

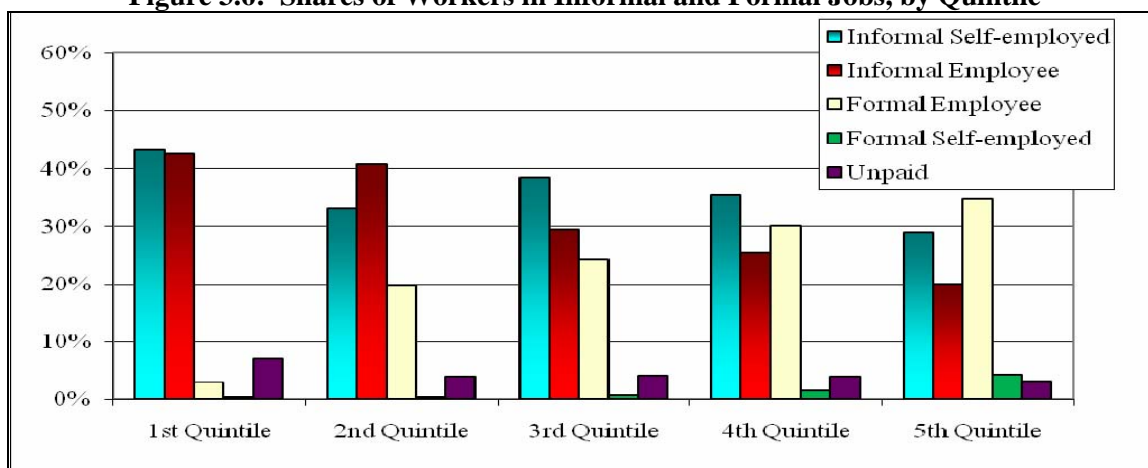
3.19 *Income level.* As in the case of education, informality levels decline with income. This can be seen clearly in Figure 3.6, which shows the share of each income quintile that

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.

³⁷ 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.

works in each of the major job categories. Those in poorest quintile work primarily either 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.

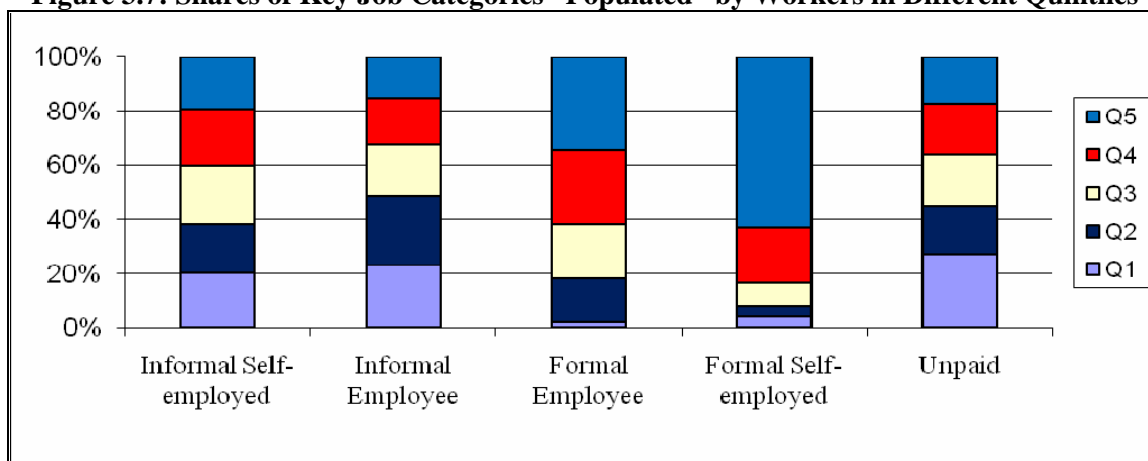
Figure 3.6: Shares of Workers in Informal and Formal Jobs, by Quintile



Source: Derived from Bernal (2007)

3.20 While a high share of poor workers are informal, the informal jobs are surprisingly evenly distributed across income quintiles. This is due to the fact that a smaller share of the poor are employed relative to the non-poor. This relatively uniform distribution of informal jobs across the income quintiles can be seen in Figure 3.7. The figure shows, for example, that share of informal self-employed workers coming each quintile is nearly identical. Employment in the informal salaried sector is somewhat more concentrated among workers in the lowest 2 quintiles; the poorest 40 percent of workers make up half of informal employees. Nonetheless, the distribution is surprising even across the income distribution. This is not the case with formal employment, however. Formal sector employment is much more concentrated among higher income workers. This concentration is particularly striking in the case of formal self-employed workers.

Figure 3.7: Shares of Key Job Categories “Populated” by Workers in Different Quintiles



Source: Adapted from Bernal (2007)

3.21 While the descriptive statistics presented above are informative about how *each* characteristic is associated with being 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 of 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 to 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 changes slightly. Specifically, the U-shape gives 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 result appears to be 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 does reconfirm the importance of education in the context of formal versus informal employment. As discussed above, more educated workers are also 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. Income is also found to have an independent negative effect on labor informality after controlling for other factors. Specifically, workers in the lowest income quintile are 11.2 percentage points more likely to be informal workers than the rest. 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 employees, holding other factors constant.

3.24 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 the firm/worker are 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 workers 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?

3.25 As discussed in Chapter 2, recent policy research shows that workers may be in the informal sector for either reasons of “exclusion” and “exit” (Perry et al 2007). The extent to which informal labor activity reflects exclusion or exit varies by country and 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 both exclusion and exit are forces driving labor market informality. For example, there is evidence of “segmentation” in the Colombian labor market. To the extent that segmentation exists, this may serve to keep some workers out of formal salaried employment who would prefer formality. Labor market segmentation may thus 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 to be engaged in independent activity, even if it means forgoing formal sector benefit packages. To the extent this is the case, those workers would arrive at informality via the route of exit. The evidence on exclusion versus exist is now investigated in turn.

Segmentation of the Colombian Labor Market: A Force for Exclusion

3.26 A recent World Bank study (2005) found significant evidence of labor market segmentation in Colombia beginning around 1994 and running to at least 2004. This segmentation served to create barriers to entry into the formal sector to some workers who

would have preferred formal employment. This section updates the earlier analysis, examining the extent to which segmentation and the related barriers to formal sector employment remain salient features of the Colombian labor market.

3.27 A recent study by Fiess, Fugazza and Maloney (2002) shows 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 thing is that rational individuals find a bundle in self-employment that is deemed as providing higher satisfaction than that found in salaried employment. Also, it points to the fact that productivity growth is low, making the opportunity cost of formality small.

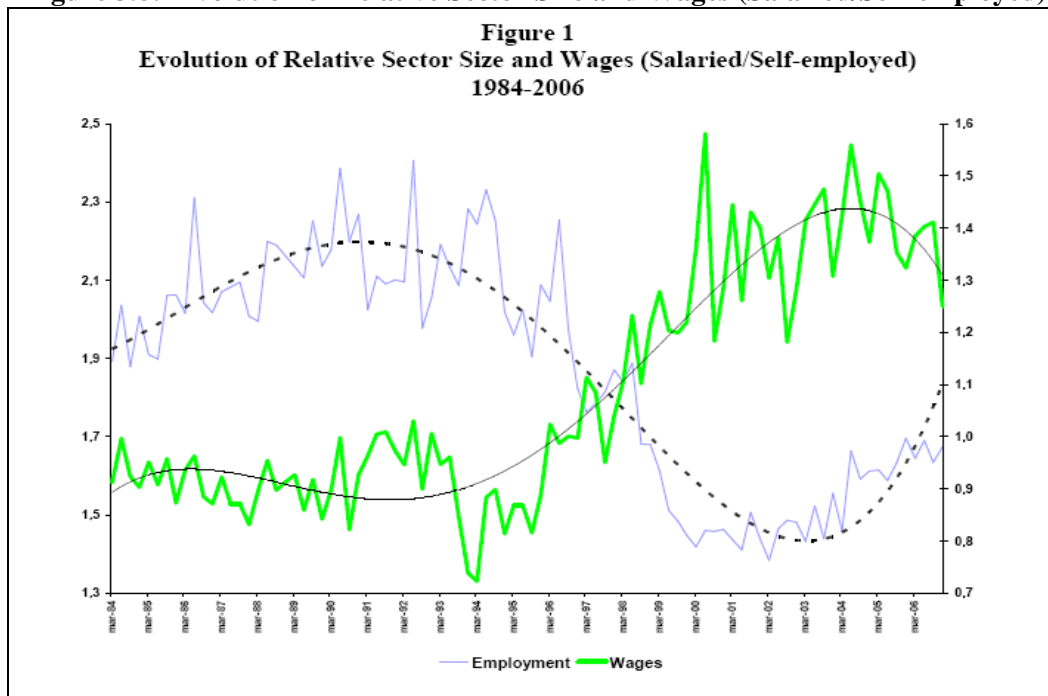
3.28 When the data series move in opposite directions, Fiess, Fugazza and Maloney (2002) show that some nominal rigidity is “binding” and that it affects the labor market by rationing out some workers from salaried employment, even though those workers would prefer salaried employment, if given the choice. In the presence of rigidities is case, 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 external labor market conditions. Additionally, it sheds light on the appropriateness of several important labor market related regulations, notably non-wage costs and minimum wages.

3.29 Figure 3.8 plots relative sector sizes and relative wages in urban Colombia for the period 1984-2006, using 4 quarter moving averages. The data show that the Colombian labor market has experienced significant levels of segmentation since after about 1994. As can be seen in the figure, after 1994 the data series move in opposite directions, indicating that after this date some factor or factors began to have important impacts on the labor market (i.e., some rigidity was introduced and it implied more segmentation in the labor market). It is important to note at this point that this was precisely when the reform to the social security system – Law 100 of 1993, which substantially raised social security contributions – went into effect.³⁸ Prior to 1994, the trends are not very clear, except perhaps between 1991 and 1994. During that (expansionary) period, both series appear to

³⁸ See World Bank 2005 for a detailed description of the content of the reforms.

move together, suggesting some degree of integration (or at least no evidence of segmentation). Before 1991, there seems to be weak movement in the opposite directions, but too weak to be able to draw strong conclusions on way or another.

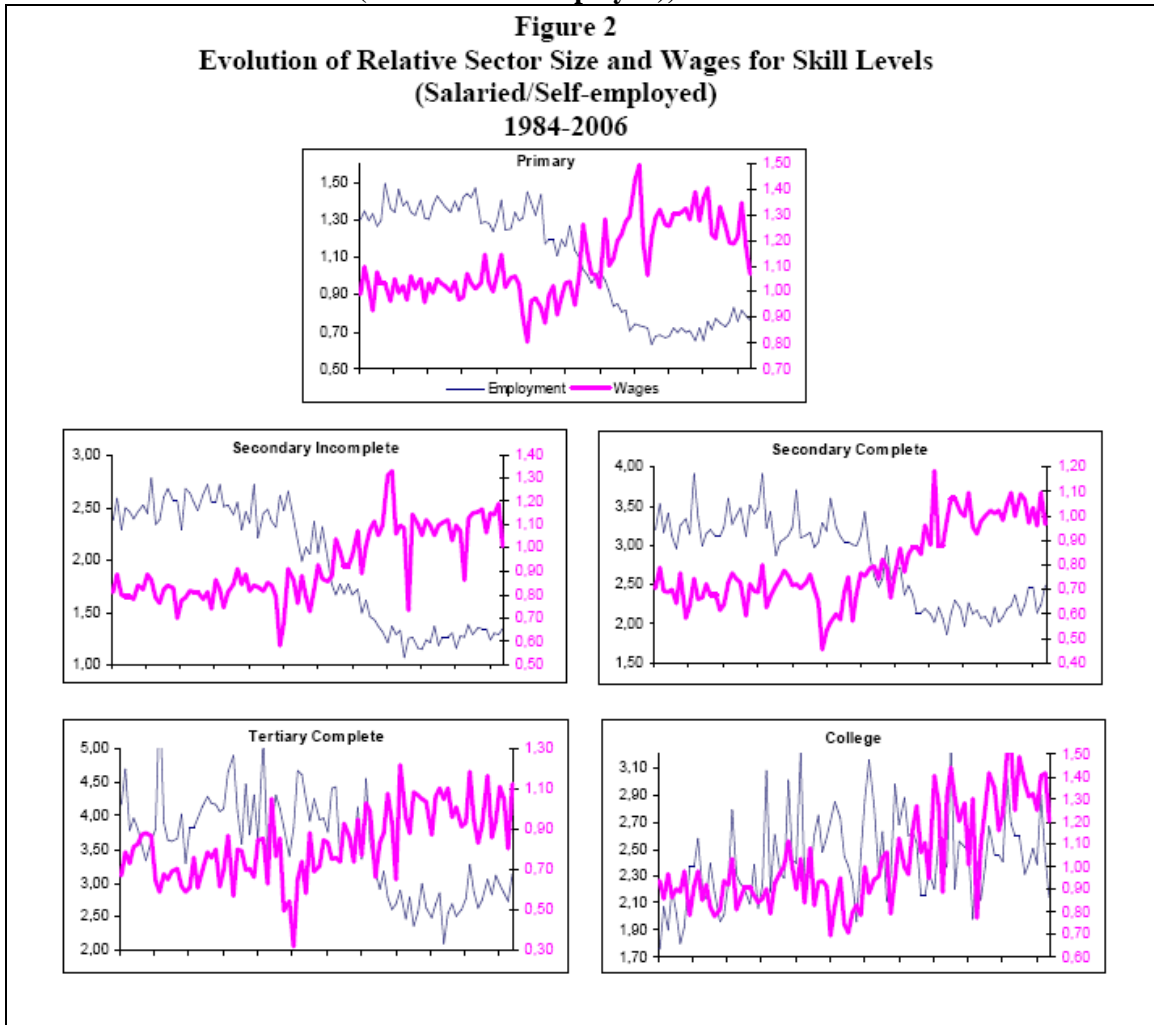
Figure 3.8: Evolution of Relative Sector Size and Wages (Salaried/Self-employed)



Source: World Bank 2005, Oliveira 2007

3.30 More detailed analysis highlights that segmentation appears to be an important force determining labor market outcomes for all except the most educated workers. Disaggregating the analysis of labor market segmentation according to workers' education levels (i.e., by workers with primary, secondary incomplete, secondary, tertiary and college level educations) one can see that all but the highest 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. Moreover, it is consistent with evidence from the 2006 ECH survey on why many workers say they work in the informal sector (see below).

Figure 3.9: Evolution of Relative Sector Size and Wages for Different Education Levels (Salaried/Self-employed), 1984-2006



Source: World Bank 2005, Oliveira 2007

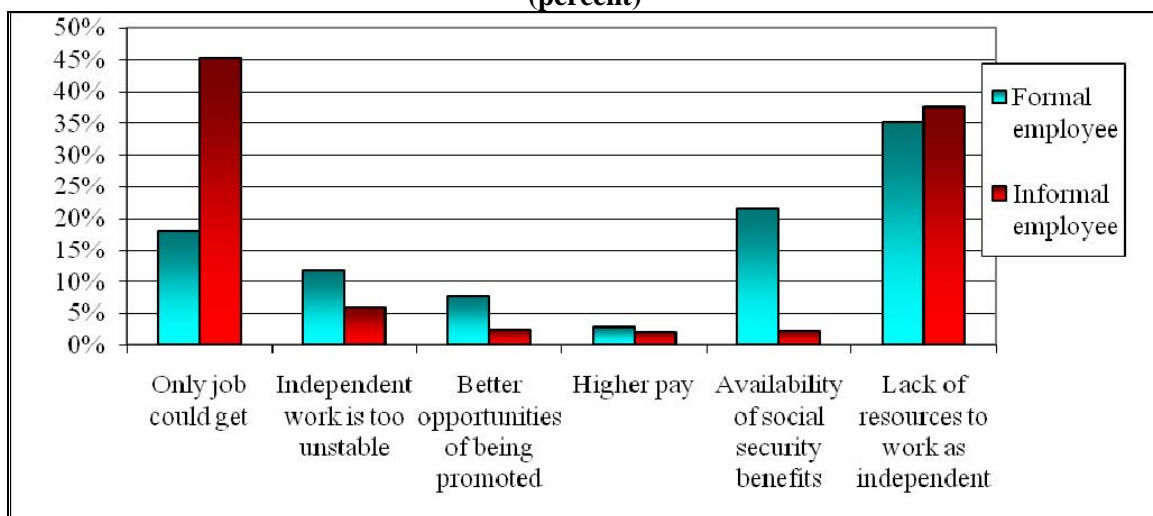
Workers' Motivations for Different Types of Work: Evidence of Both Exclusion and Exit

3.31 The 2006 ECH, collected a rich set of data on people's motivations for being either employees (salaried workers) 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 of exclusion.

3.32 Figure 3.10 shows workers' self-reported reasons for being an employee rather than for being self-employed. As can be seen from the figure, the single most important reason that informal employees give for being an employee is that this was the only job they could get. Just over 45 percent of all informal employees state this reason, which is consistent with being informal as a result of exclusion (say, as a result of labor market segmentation).

In contrast, only 18 percent of formal workers cite this reason. At the same time, between 35-38 percent of both formal and informal employees alike indicate that they are employees because they lack the resources to work as independent workers. While it is hard to link this response to exclusion (or exit) per se, it is interesting because it suggests, perhaps contrary to conventional wisdom, that as much as one-third of employees (whether formal or informal) would actually prefer to work independently if they had sufficient capital to do so. Finally, it is worth noting that just over 21 percent of formal employees indicate that the main reason for being an employee relates to 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)



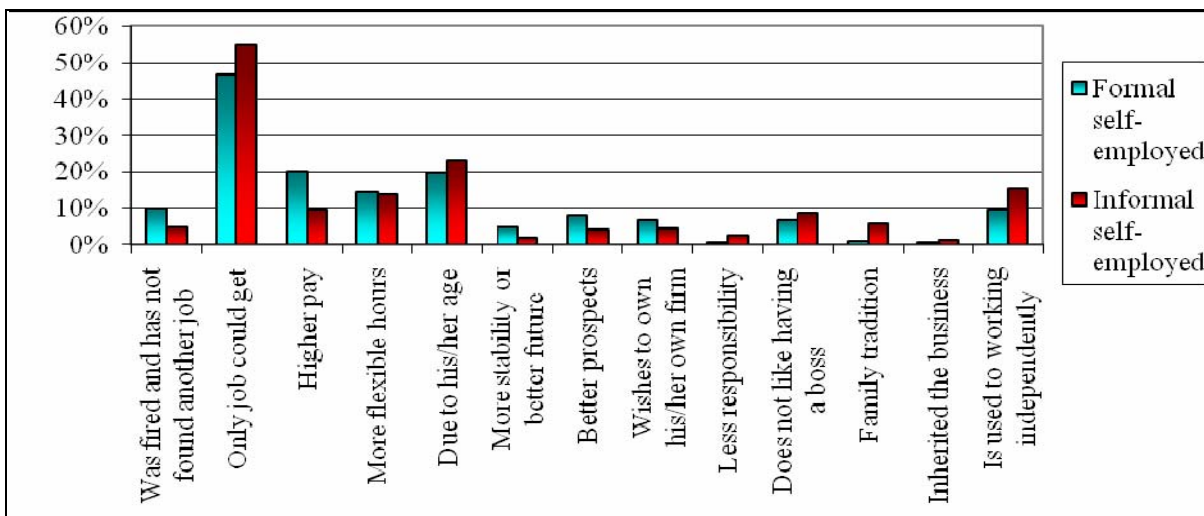
Source: Adapted from Bernal (2007)

3.33 Figure 3.11 shows the reasons independent workers report for being self-employed rather than working as employees. As can be seen from this figure, the largest single reason independent workers report for being independent – whether formal or informal – is that it was the only job they could find. Around 55 percent of informal self-employed workers, as well as 47 percent of formal self-employed workers cite this reason. In this case, the responses of both formal and informal self-employed workers can be thought of, at least in part, as a function of exclusion from salaried work in general, again perhaps due to labor market segmentation. In addition, 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.³⁹

³⁹ Percentages can not be meaningfully summed together, as respondents could select up to two responses to this question.

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 as well.

Figure 3.11: Self-Reported Reasons Why Independent Workers Do Not Work as Employees (percent)



Source: Adapted from Bernal (2007)

Note: Columns do not add up to 100, as respondents could select up to two responses to this question.

3.34 It is important to highlight that not all of the reasons self-employed workers report point toward exclusion. In fact, a significant proportion of responses point more strongly toward exit. For example, approximately 10 percent of informal self-employed workers (and 20 percent of formal self-employed workers) indicate that the reason they prefer not to be employees is that they can make more money being independent. In addition, 14 percent of both informal and formal self-employed workers indicate that prefer being independent because it gives them more flexibility of working hours.⁴⁰ Roughly 4 percent of informal self-employed (and 8 percent of formal self-employed) workers said they prefer to be independent because they see better prospects in this form of employment, while 5 percent of informal self-employed (and 7 percent of formal self-employed) workers say they wish to have their own firm, and 9 percent of informal self-employed (and 7 percent of formal self-employed) workers say they prefer not having a boss. Together, these reasons (plus a few others, like “more stability and better future”) that can be interpreted as a preference for their current work current work status – or exit.

⁴⁰ 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.

3.35 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 older workers (perhaps those with more experience, business connections, and assets) appear to be independent as a matter of preference. Specifically, 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.

3.36 Perhaps not surprisingly, workers with higher levels of education and higher income are more likely to report reasons associated with exit compared with less education, 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, among informal self-employed workers, the likelihood of reporting that this is the only job they could find decreases consistently with income. While 63 percent of the poorest workers indicated this reason only 38 percent of the richest workers did. Also, wealthy self-employed workers are more likely 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 than are poor workers.

3.37 The notion that a significant share of informal self-employed workers are informal as a matter of choice – or 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. Specifically, 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 3.3. 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 3.3: Preferences for Independent Work

Preference	Informal self-employed	Formal self-employed	All Independent Workers (including employers)
Would accept a job as employee with benefits for lower wage	27.1	28.7	26.0
Would accept a job as employee with benefits for same wage	39.1	41.4	37.1

Source: Bernal, 2007

3.38 As can be seen from the table, independent workers – both informal and formal – indicate significant demand for benefits.⁴¹ Just over 27 percent of informal self-employed workers report that they would accept a job as employees with benefits even if it meant taking a job with 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 indicated that 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 roughly 28 percent of all informal self-employed workers. Taken together, this means that roughly 56 percent of all informal self-employed workers report they 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.

3.39 While the figures suggest a significant demand for benefits, they also imply a significant degree of preference among workers for independent – even informal – work. Specifically, the figures presented in Table 3.3 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 are informal as a result of a preference for the type of work they undertake. It is interesting to note that the 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 also included in the analysis.

3.40 In sum, the evidence indicates that workers are informal for both reasons of exclusion and of 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.

⁴¹ For a more detailed discussion of worker demand for social protection benefits, see Chapter 4.

This is reflected in the data on why informal employees and self-employed workers are in their current positions. 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 as a matter of choice, at least given current constraints. Roughly 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 in terms of wages. Indeed, many informal self-employed workers indicate that they are in their current jobs for reasons associated with “exit” into informality, including because of higher pay or better prospects of making money, because they value the flexibility associated with self-employment, or because they want to run their own firm and/or do not like having a boss.

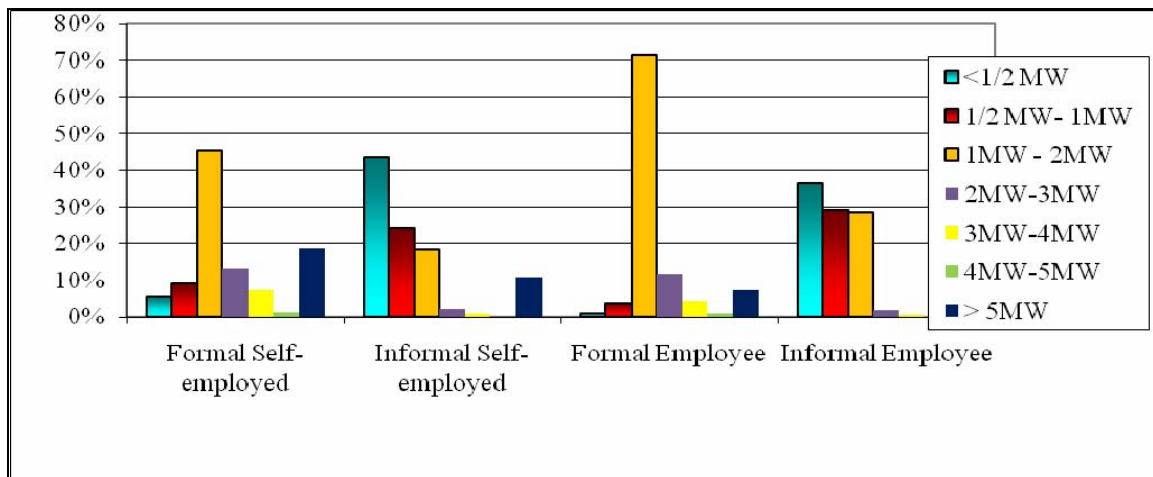
What Is Known About Informal (vs. Formal) Workers’ Welfare?

3.41 Given the heterogeneity of reasons why people work in the informal sector, what can be said about informal workers’ welfare relative to that of formal sector workers? The 2006 ECH survey collected several measures that help provide insights 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 now, in turn.

3.42 Descriptive data on workers’ monthly labor earnings indicate that informal sector workers tend to have lower earnings than formal sector workers (Figure 3.12). For example, 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 in the case of formal self-employed and 4.6 percent in the case 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.⁴²

⁴² 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).

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)

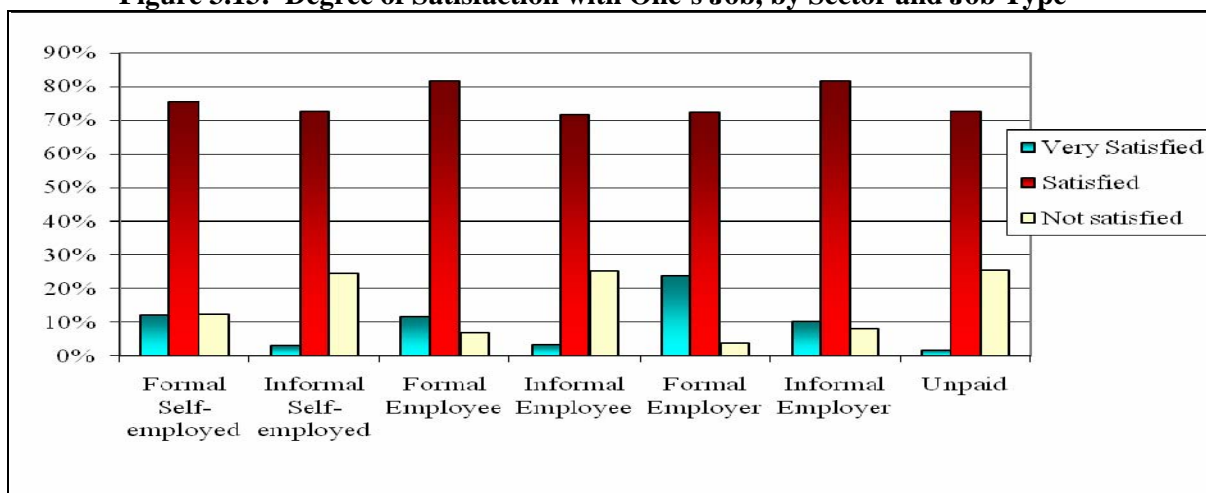
3.43 While comparisons of raw earnings data are interesting, they do not permit one to make welfare comparisons, because they do not capture systematic differences between informal and formal workers, for example, with respect to education levels. As noted above, informal workers have lower levels of 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, on average).

3.44 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 there is a significant sub-group who 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 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.

3.45 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 – along with formal sector employees experience

the highest levels of job satisfaction. Over 90 percent of employers and formal employees report being either “very satisfied” or “satisfied” with their jobs.⁴³ 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



Source: Adapted from Bernal, 2007

3.46 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 – on job satisfaction, controlling for income, education levels and other individual and household characteristics. To do that, the paper divides survey respondents into those who are satisfied (those who report being “very satisfied” and “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 of the analysis 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, thus, 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.

⁴³ Over 20 percent of formal employers and 10 percent of informal employers and formal employees, respectively, report being “very satisfied” with their jobs.

3.47 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 levels, 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.

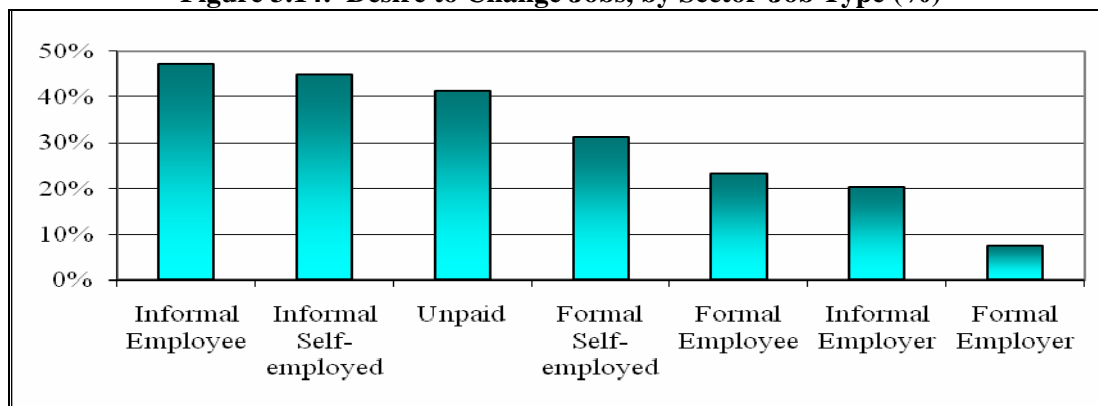
3.48 Sosa-Escudero (2007) also analyzes several sub-dimensions of job satisfaction in Colombia, including satisfaction with the number of hours worked, income levels, social benefits, application of knowledge on the job, and the working day. The observed patterns are quite similar to those associated with overall job satisfaction. Indeed, in nearly all cases, it is only formal salaried workers that experience higher levels of satisfaction once income and other variables are controlled for. The one noteworthy difference comes 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.

3.49 To provide a more concrete, quantitative sense of the different levels of job satisfaction between categories of workers Sosa-Escudero (2007) estimates “income compensating differentials” between two different groups of workers, specifically between formal salaried and informal salaried workers. Here, the income compensating differential is defined as the proportion of income that would have to be added to an informal salaried worker 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.

3.50 While most workers report being satisfied with their jobs, many workers do express a desire to change jobs, especially those in the informal sector. For example, while 75 percent of the informally self-employed are satisfied with their jobs, 45 percent would like to change their 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.⁴⁴ Again, it can be seen that employers (formal more so than informal) are the least eager to change jobs while informal employees and self-employed are the most eager.

Figure 3.14: Desire to Change Jobs, by Sector-Job Type (%)



Source: Adapted from Bernal (2007)

3.51 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 3.4; 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 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). This 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).⁴⁵

⁴⁴ The data do not permit us to identify if the worker who wants to change his or her job wants a formal (or informal) job, only that they would like a different job.

⁴⁵ 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 3.4: Reason for Stating a Desire to Change Jobs, by Sector-Job Type
(up to three responses given per respondent)

Segment	Under-utilized	Increase income	Work too many hours	Job is temporary	Problems at work	Dislike current job	Job too demanding	Environment issues
All	51.3	97	28.7	39.5	6.5	22.3	39.2	17
Formal Self-employed	64	91.9	29.3	44.7	5.6	16.8	38	14
Informal Self-employed	46.3	97.8	24.7	39.6	6.4	22.4	38.9	17.6
Formal Employee	62.2	94.3	36.1	24.6	7.4	19.3	43.9	21.6
Informal Employee	51.3	97	31.3	46.6	6.4	23.8	38.7	15.4
Formal Employer	71.6	87	40.8	8.2	21.4	25.9	38.9	1.9
Informal Employer	44.6	94.2	32.5	22.6	8.5	15.6	49.2	22.6
Unpaid	61.2	94.4	19.7	33.1	3.7	24.2	27.6	10.5

Source: Bernal (2007)

3.52 Finally, it is worth noting that 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.

3.53 In sum, the collection of 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. There are notable exceptions, however, as some among the informal self-employed who are among Colombia’s highest earners. In general, Colombians report high levels of job satisfaction. But 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. At the same time, it is important to come back to the notion of the heterogeneity of workers that has permeated this chapter. 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.

Labor Market Mobility: Worker Transitions between the Formal and Informal Sectors and across Jobs⁴⁶

3.54 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 of 2006), but dynamic analysis provides a more nuanced picture. Indeed, new data from the *Gran Encuesta Integrada de Hogares* (GEIH), that asks interviewees to recall their formal and informal jobs in the long run, and from the *Encuesta Social de Fedesarrollo*⁴⁷ (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.

3.55 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 3.5 present “transition matrices” for people working in the formal and informal 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 states) in 2006 came from which sector in 2005. The shaded cells show movements between the formal and informal sectors. As can be seen from the table, 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).

⁴⁶ This section draws largely on Olivera and Gracia (2007).

⁴⁷ 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).

Table 3.5: Worker Transitions among Sectors, 2005 to 2006
(percent, sums to 100 column-wise)

Sector in 2005	Sector in 2006			
	Formal	Informal	Unemployed	Out of Labor Force
Formal	82.2	25.3	14.7	3.2
Informal	10.3	64.7	5.5	1.6
Unemployed	1.2	1.9	69.4	1.3
Out of Labor Force	6.3	8.1	10.5	93.9

Source: Olivera and Gracia (2007), based on ESF panel, 2005-2006.

3.56 The diagonal cells of Table 3.5 show the percentage of people who were in the same sector in 2006 that they were in during 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.

3.57 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, Brazil and are higher than those 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 as high minimum wages and high non-wage costs of employment.⁴⁸

3.58 GEIH data suggest greater movement between the formal and informal sectors over longer time horizons. Table 3.6 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.⁴⁹

⁴⁸ 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.

⁴⁹ The statistics presented in Table 3.5 and Table 3.6 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

Focusing on urban transitions first, the data show that 23.9 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 into 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 3.6: Worker Transitions among Sectors, from Last to Current Job
(percent, sums to 100 column-wise)

Last Job	Current Job					
	Urban			Rural		
	Formal	Informal	Un-employed	Formal	Informal	Un-employed
Formal	48.8	20.6	21.8	36.5	5.7	8.6
Informal	23.9	43.7	57.6	36.2	46.3	63.9
Out of LF/Unemployed	27.3	35.7	20.6	27.3	48.0	27.5

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

3.59 In contrast to shorter-term transition rates, longer-term rates appear to be similar to those in other parts of Latin America. While the data are not strictly comparable due to definitional differences across country studies, it can be seen 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 3.6, 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

its own strengths and weaknesses for analyzing transitions. For example, the ESF data would not capture very short spells of employment in an alternative sector, while the GEIH data may be capturing a job that was recently left or one that was left long ago. These and other data issues are discussed in detail in Olivera and Gracia (2007).

percentage points lower in the Dominican Republic, relative to the 20.6 percent rate observed in Colombia.⁵⁰

3.60 Considerable movement is seen between sectors and employment states are seen in rural as well as urban areas – although the relative weight changes across sectors differs in some cases (table 3.7). 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).

3.61 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 3.7). 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. Similar patterns are seen among those who are informal employers.

⁵⁰ Perry et al 2007.

Table 3.7: Likelihood of the Last Job Having Been From a Different Sector-Job Type than the Current Sector-Job Type (%)

Initial Sector	Terminal Sector						
	Formal Employee	Informal Employee	Formal Self-Employed	Informal Self-Employed	Formal Employer	Informal Employer	Unpaid Worker
Formal Employee	42.1	18.6	24.8	10.9	26.0	9.1	17.1
Informal Employee	13.2	45.2	18.3	49.9	22.9	52.8	8.7
Formal Self-Employed	9.7	6.7	12.9	7.0	10.2	4.9	6.8
Informal Self-Employed	0.3	1.4	0.5	9.3	0.5	1.5	0.2
Formal Employer	0.3	0.2	0.4	0.0	2.5	1.0	0.1
Informal Employer	0.2	0.1	0.1	0.4	0.5	2.6	0.0
Unpaid Worker	0.4	0.2	0.7	0.4	1.5	0.4	2.3
Out of the Labor Force	33.7	27.6	42.5	22.0	36.1	27.8	64.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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

3.62 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). The patterns observed in Colombia are quite similar to those observed in other countries in Latin America.⁵¹

Conclusions

3.63 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 works in the informal sector, 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.

3.64 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, however. 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

⁵¹ Bosch and Maloney 2007.

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 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.

3.65 Several sets of factors are closely associated with being an informal worker in Colombia. Perhaps the most important factor is the workers' education level. Indeed, the likelihood of a worker being informal declines significantly with higher levels of education. Similarly, informality is closely and negatively associated with earnings levels; the likelihood of being informal declines significantly as earning levels rise. While the associations with education and earnings are strong, it is important to point out that informality is *not* solely a function of low education or incomes in Colombia. 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 an important factor determining one's likelihood of being informal – although the effects are different depending on where one is in their lifecycle. Young people often start their working lives as unpaid workers or informal employees. But as they get older and gain more experienced, many young workers 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 plays a role; both indigenous groups and Afro-Colombians face a relatively high probability of being informal, controlling for other factors.

3.66 In terms of the reasons why workers are informal, the evidence points to both reasons of exclusion and of exit. Analysis of wage and employment trends suggest that segmentation in the Colombian labor market serves to ration many workers who would otherwise like to have formal salaried employment out of the formal sector. This “exclusion” from formal sector jobs is reflected in self-reported data on why informal employees and self-employed workers are working in their current jobs. Over 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 (i.e., via the route of “exit”), 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 “positive” reasons, such as

because of higher pay, better job prospects, or greater flexibility, or because they want to run their own firm and/or be their own boss.

3.67 Yet the evidence also suggests that policymakers have well-justified concerns about informal sector workers' welfare – at least on average. Review of a range of possible indicators of welfare 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. And, there are noteworthy exceptions, as some informal self-employed workers find themselves among Colombia's highest earners. 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 incomes, 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 pay⁵²).

3.68 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 raises questions about 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. Moreover, evidence on shorter-term work transitions suggests that Colombian workers experience greater movement in and out of the informal sector than is typically thought. Evidence on job transitions indicates, for example, 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; for example, over 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 is generally 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 *across* job types.

⁵² The issue of informal workers' ability to pay for social security will be analyzed in Chapter 4.

3.69 What may this all 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 gets provided in Colombia and, in particular, the traditional link between the formal labor contract and access to risk management instruments. This "Bismarkian" 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 life-long 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 be eligible for the pensions via the formal sector pension system or to achieve uninterrupted health coverage through the formal contributory health insurance system. In this context, it is worth looking more closely the links between informality and social policy to better understand the extent to which the structure and design of Colombia's the social protection system are compatible with protecting most if not all of Colombia's citizens. This is the subject of the next chapter.

4. Labor Informality and Social Policies

Introduction

4.1 The previous chapter developed a profile of who informal sector workers are and why they work in the informal versus the formal sector. Consistent with the recent World Bank flagship publication, *Informality: Exit and Exclusion* (Perry et al 2007), the evidence suggests that Colombian workers are in the informal sector both for reasons of “exit” and “exclusion”. At the same time, analysis of the labor market highlights a considerable degree of labor market segmentation in Colombia. This high degree of segmentation suggests that the importance of exclusion as a cause of informality may be relative greater in Colombia than in some other Latin American countries, such as Mexico or Brazil, where the evidence points to a fairly high degree of labor market integration across formal and informal jobs (Perry et al 2007). Yet, even in Colombia the evidence makes clear that a significant share of workers, particular among the self-employed, “opt into” the informal sector.⁵³

4.2 Whether workers are in the informal sector as a result of exclusion or exit, a key concern among policy makers relates to promoting basic welfare among those “uncovered” workers and, in particular, ensuring that they are adequately protected against key risks such as those related to adverse health shocks or the risk of poverty in old age. Indeed, the Government of Colombia has been – and continues to be – active in recent years in developing a comprehensive social protection system to ensure the workers basic welfare, whether in or outside the formal sector. They have done so with the understanding that even workers who opt out of the formal sector generally value protection against risks and shocks.

4.3 Several recent studies have raised questions about the extent to which the design and implementation of public social policies – e.g., labor regulations, social protection policies – may actually contribute – *inadvertently* – to labor informality (Levy 2007, Perry et al 2007). With respect to labor-related policies, for example, if employers face high non-wage costs of employing workers, significant labor market rigidities, or high and binding minimum wages, these may cause formal employers to hire fewer workers than they would in the absence of these costs. This could serve to ration some people out of formal sector employment, leaving them with the prospect of being unemployed or employed in the informal sector.⁵⁴ In such a case, informal employment would reflect exclusionary forces.

⁵³ For a detailed discussion of the evidence on “exclusion” versus “exit in Colombia see Chapter 3.

⁵⁴ Firms may face considerable costs associated simply with becoming formal and may choose to remain informal, similarly affecting workers’ opportunities to work in the formal sector. The factors that affect the decisions for firms to become formal are discussed in detail in Chapter 5.

4.4 At the same time, many individuals – especially self-employed workers – opt into the informal sector, the result of an explicit or implicit assessment of the costs and benefits associated with formal versus informal employment (and in light of their personal characteristics, preferences, and endowments). Part of the explicit or implicit calculations that leads to the “exit” of these workers may relate to the design or implementation of social protection programs and policies, and about workers perceptions about 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* in Health) that provide access to similar types of benefits.

4.5 This chapter examines the extent to which the design and implementation of social policies in Colombia may contribute to labor informality – even if inadvertently. Understanding the role of social protection (and social policies more generally) in promoting either formal or informal employment requires understanding people’s perspectives as well as their “demand” for social protection. Indeed, it requires understanding not only the extent of their desire to be protected, but also understanding what people know or don’t know about social protection, and how this knowledge – or the lack of it – affects people’s demand for or their ability to access social protection. In this context, the chapter starts by examining new empirical evidence on people’s demand for social protection, actual coverage of health insurance and pension benefits, as well as people’s willingness – and ability – to pay (given that working in the formal sector implies payroll tax contributions in return for protection).

4.6 The chapter also examines the level of information available to informal workers that may, in turn, determine the demand for and/or access to social protection. Anecdotal evidence from Colombia, as well as other Latin American countries, suggests that there may be important information failures that affect both people’s demand for and ability to access social protection. Specifically, the evidence suggests that many people don’t fully understand the nature of the benefits available and that this lack of information may affect both people’s perceptions of social protection and their ability to access it. Section 3 of this chapter thus examines how important information problems are in the context of informality and the quest to ensure better access to social protection in Colombia.

4.7 Against this background, the section 4 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: (i) Colombia’s minimum wage policies, (ii) the high non-wage costs associated with formal employment (*parafiscales*), (iii) the design of formal sector (contributory) social security system, and (iv) the possible relationship between non-contributory programs (e.g., the *Regimen Subsidiado* in health) and informal sector employment. In the case of this latter issue, recent studies on informality and social policy in Latin America have conjectured that “competing” contributory and non-contributory programs in health, pensions and other elements of formal social security may create incentives for workers to opt into the informal sector (Perry et al 2007, Levy 2007).

4.8 The chapter concludes with a preliminary discussion of the policy implications of the evidence – a discussion that is picked up and elaborated on in Chapter 6.

Workers’ Demand for and Access to Social Protection

4.9 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 strategies. While, in principle, private risk management strategies could include the purchase of private insurance (e.g., health, disability, etc.), in practice private insurance markets remain relatively thin in the region, and access to private insurance instruments is generally confined to the wealthier segments of societies. In this context, a number of private risk management strategies are identified in the literature for Latin America, including 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 of an adverse shock (or to mitigate the likely impact of a shock to a specific individual’s income) and after the fact, to help cope with or deal with the effects of an adverse event. While important, empirical evidence consistently shows that households are able to partially – but not fully – insure themselves against risk; 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.

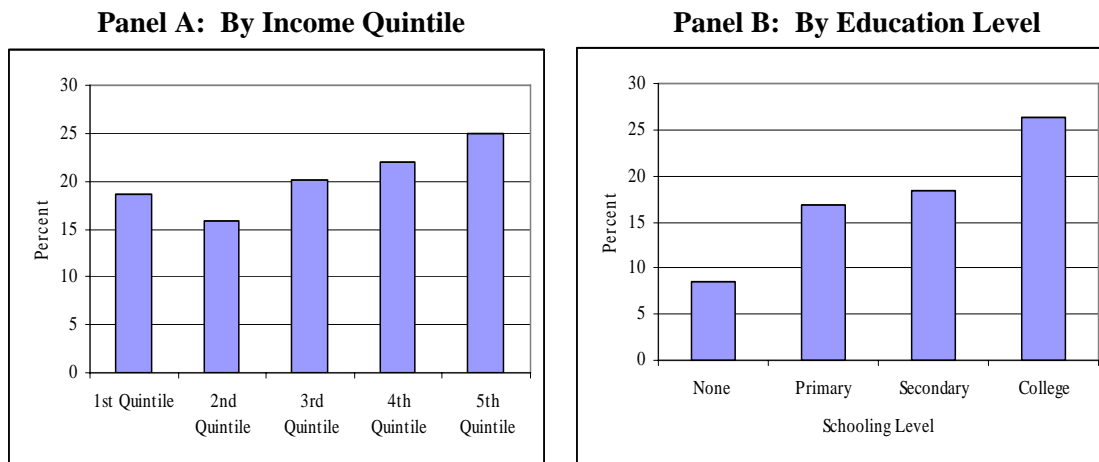
4.10 Given that people engage in private risk management strategies, it is fair to try to understand more clearly the extent of demand for social protection, as this may affect people’s desire to opt into or out of formal sector work, holding other factors constant. To do this, this section draws heavily 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, there is evidence that Colombians do indeed demand social protection – especially in health – but faced with the prospect of contributing, many feel they cannot afford it. 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 savings for retirement and the immediate need for those same resources, either for 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 might better enable them to “purchase” social protection. The evidence underpinning these messages is now explored in turn.

Worker's Demand for Social Protection

4.11 There is no single summary measure in the 2006 ECH survey that captures worker demand for social protection or their willingness to pay. Nonetheless, there are several different ways that workers' 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 being self-employed is the result due to the availability of social security benefits. Because survey respondents were only asked to promote their *main* motivation for being an employee, this figure can be taken as a strict lower bound estimate of demand for social protection, as many who cited others reasons as the main motivation (e.g., "lacked the resources to work as an independent worker") may also consider the availability of social security benefits an *important* reason.

4.12 The relative importance that employees place on social security benefits differs slightly by gender, with 23.7 percent of female formal sector employees and 19.9 percent of male formal sector employees indicating that the availability of social security benefits as their main motivation for being an employee. The relative importance of having social security benefits, as a motivation for being a formal employee, 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 an employee, roughly one-quarter of those in the wealthiest quintile cite social security benefits as the main reason for preferring formal salaried employment over self-employment (Figure 4.1, panel A). Similarly, while only 16.8 percent of formal employees with primary education cite the availability of social security benefits is their main reason for being an employee, 26.3 percent of employees with a college education report this as the main reason (Figure 4.1, panel B).

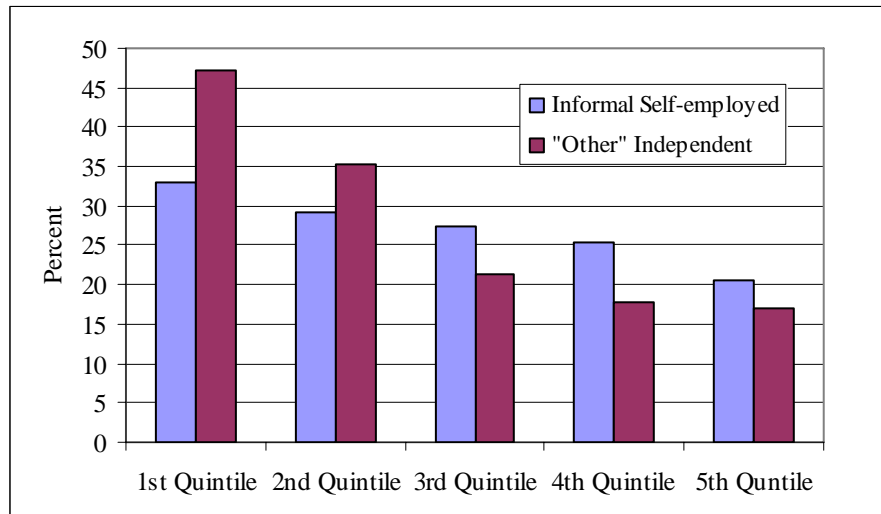
Figure 4.1: Share of Formal Employees who Report that the Availability of Social Security Benefits is Their Main Motivation for Being an Employee



Source: Bernal (2007).

4.13 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, the 2006 ECH asks independent workers if they would accept a job as an employee if they were offered benefits but 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 self-employed or “other” independent workers' “willingness to pay” for social security benefits are seen by gender or by education level. But a clear pattern is seen across income quintiles (Figure 4.2). Specifically, a higher proportion of poor informal self-employed and other independent workers reported a willingness to accept lower wages in return for employment with benefits than do non-poor workers in the same categories. As can be seen from the figure, 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)

4.14 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 so that he or 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 income level and the benefits associated with his or her job.

4.15 It is worth noting that among workers who indicated that they would not accept a job as an employee with benefits at a lower wage, an additional 39.1 percent of informal self-employed workers indicated they would be willing to take a job as an employee with benefits for the *same* wage. Moreover, 44.7 percent of other independent workers who would not accept a job as an employee for a lower wage indicated that they would accept salaried employment with benefits for the same wage. 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.

4.16 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 living and working in urban labor markets. Specifically, the study carried out focus group as well as in-depth individual interviews with 53 informal self-employed, informal salaried and formal sector workers in 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 vs. formal, as well as their knowledge of and demand for social protection services. The study revealed several general patterns in terms of poor workers attitudes regarding – and demand for – social protection, but also uncovered some interesting, useful nuances according to sub-categories of workers, according to their gender, income/SISBEN levels, and job type (e.g., informal self-employed, informal salaried, formal, etc.).

4.17 In general, the interviews indicated that poor workers put a relatively high value on social protection in health. Concerns about health problems and health costs – both of adults and children – were real and the demand for social protection in health was clear. In the case of poor informal sector workers – i.e., those in SISBEN I and II – there was a general agreement of the value they placed on 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, in some way, a higher sense of vulnerability to health shocks, due to their lack of eligibility for the *Regimen Subsidiado* on one hand, and the lack of participation in the formal sector's contributory health regime. Informal workers in SISBEN III, particularly female workers, highlighted their sense of importance of having health insurance and that they would be prepared to pay for it, if available.

4.18 In terms of pensions, the messages were more varied. While a number of workers, particularly female workers, indicated that they realize the importance of having old age income security in principle, respondents highlighted several trade-offs with respect to pensions. First, even when there was a realization of the importance of having old-age income security and a notional “willingness” to pay, respondents often highlighted that they had little or no *ability* to save – based on their low incomes – especially for a benefit that would only be available far out in the future. In terms of savings capacity, some informal workers also expressed concerns about the lack of matching employer contributions that are paid in the context of formal sector jobs. As importantly, many respondents indicated that if they did have sufficient incomes to save, they would prefer to use it for more immediate needs, whether investments in their own enterprises (to increase their current income streams) or for their children's education. In several cases, workers expressed a lack of confidence in the State and, specifically, concerns about whether their pension contributions made now would actually be available to them in the future when they stopped working.

4.19 In general, many respondents appeared to place greater value on – and a desire for greater access to – current as opposed to future benefits and services. Beyond the issue of health insurance, which respondents agreed was a critical to present-day concern, interviewees often expressed a desire and preference – at least relative to pensions – or 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 commented on the desire, perhaps instead of saving for traditional pensions, to have greater access to flexible, voluntary savings instruments that could be used for a range of needs in the short-, medium- or and longer-terms.

4.20 Indeed, 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 amounts of contributions to social protection (or some other type of contingency savings fund) to accommodate the variability and/or seasonality of poor workers' income streams. Respondents wanted the option to contribute or 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 from social protection programs or a contingency savings fund. Again, this second 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, for which they would like access to any discretionary saving they could accumulate, as well as other social protection benefits and services.

4.21 While the CIDER study (2007) found a number of overall patterns, the research also revealed some noteworthy differences in respondents' views and demand for social protection according to their gender, income/SISBEN-levels and job types (e.g., informal self-employed, informal salaried, formal, etc.). Overall, women seemed to place a higher value on the various elements social protection than did men (controlling, notionally, for income/SISBEN level). This seemed to be related to women's household roles and the responsibility they felt towards their children's as well as their own 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 variable, unpredictable income stream.⁵⁵

Workers' Ability to Pay

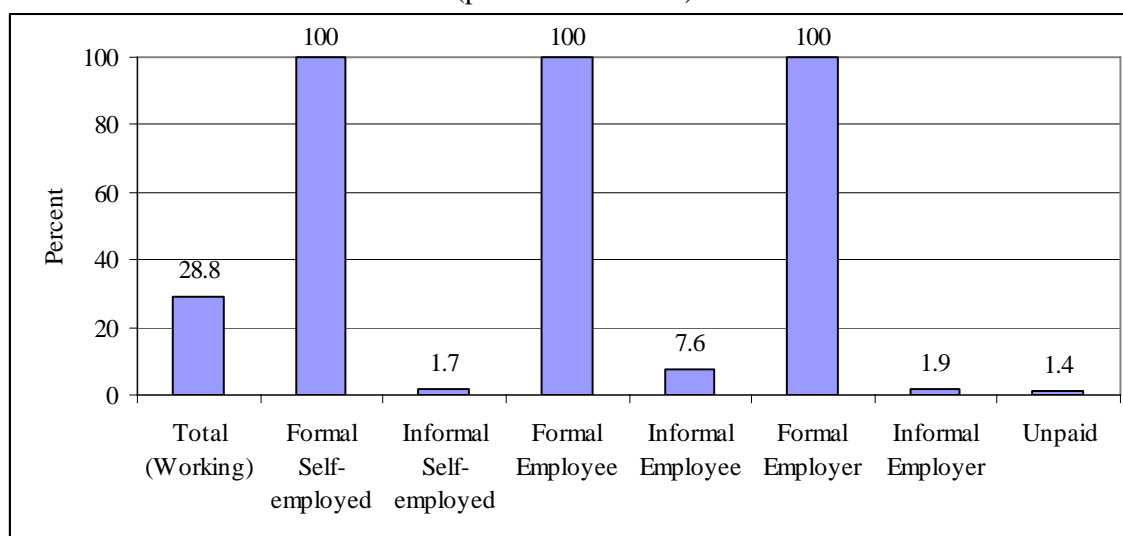
4.22 The focus group and individual interviews carried out by CIDER (2007) highlighted not only workers' desire – or demand – for social protection, but also the concerns about their ability to pay for social protection benefits and services. This can be seen as well in the quantitative data collected in the ECH. The issue of affordability of – or the “ability to pay for” – social protection is most dramatic in the case of pensions, but can be seen clearly in the case of health insurance as well.

⁵⁵ 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.

4.23 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 of their salaries and employees contributing 8.5 percent. In the case of pensions, total contributions are legislated at 16 percent of workers' salaries, which employees paying 4 percent and the employer paying the additional 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 the employer's and the employee's share, but in contrast to salaried workers, their contribution levels are calculated on 40 percent of their income.

4.24 *Pensions.* In the case of pensions, the 2006 ECH data indicate that only 28.8 percent of active workers report having pension coverage, defined as actively contributing to a pension scheme. This overall figure number is low, but includes formal workers who, according to the definition used in this study, are 100 percent covered. Disaggregating pension coverage by formal and informal workers, by 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 indicate that they have pension coverage, while only 1.7 percent of informal self-employed workers a report having coverage. In the case of covered employees, the ECH data indicate that employers' contributions play an important role in covering the cost of pension contributions. 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 worker themselves (upwards of 80 percent of contributors in the case of self-employed workers; see Bernal 2007).

Figure 4.3: Pension Coverage among Active Workers in Colombia, 2006
(percent of workers)



Source: Derived from Bernal, 2007

4.25 For those in the informal sector who do not make pension contributions, the 2006 ECH asks them to report the main reason why. Overall, just under 70 percent of informal sector workers state that the primary reason they do not make pension contributions is because they cannot afford it (table 4.1). In the case of informal self-employed workers, the percentage reporting that they cannot afford to contribute reaches nearly 80 percent.⁵⁶ As can be seen from the table, after “cannot afford it,” the two most important responses 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. Nevertheless, about 60 percent of informal employees also cite the inability to afford pension contributions as the most important reason for not contributing.

Table 4.1: Main Reasons Why Informal Workers Do Not Contribute to Pensions
(percent of workers)

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

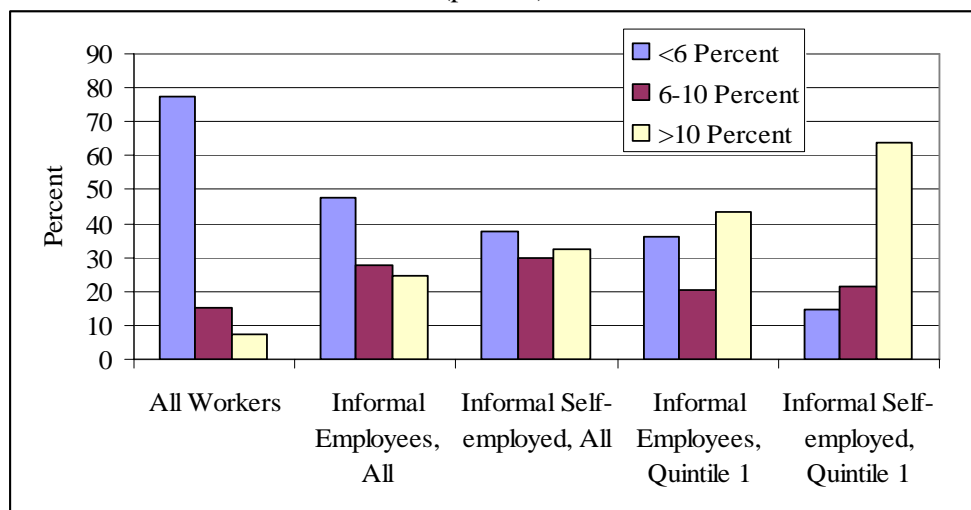
Source: Bernal (2007)

⁵⁶ 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).

4.26 Because the reasons for not contributing are self-reported, they are subject to possible biases in the responses. Deeper analysis of the responses suggests, however, that workers' claims regarding an inability to pay conform reasonably to their economic circumstances. Over 80 percent of all workers in the poorest quintile report they cannot afford to make pension contributions (90 percent of informal self-employed workers), for example, as 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.

4.27 Data from the ECH on the size of monthly pension also highlights the importance of the issue of poorer workers' ability to pay. The data indicate that among those making pension 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 over 10 percent of their monthly earned income (Figure 4.4). The remaining 77.3 percent of the working age population that 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 levels of 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 incomes on pensions while nearly two-thirds contribute over 10 percent of their monthly earned income.

Figure 4.4: Share of Contributors paying less than 6%, 6-10%, or more than 10% of their Monthly Earnings towards Pensions, by Selected Sub-Group
(percent)



Source: Bernal (2007); World Bank staff calculations.

4.28 Low levels of pension coverage – whether due to workers’ inability to afford contributions or due to a focus on other shorter-term investment or consumption priorities – raise important concerns about people’s ability to protect themselves from poverty and assure themselves a basic level of well-being in old age. This concern is reinforced by data collected in the ECH regarding the actions taken by workers 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 report that they are saving independently for their old age, while 4.3 percent indicate that they plan to rely on their children when old.

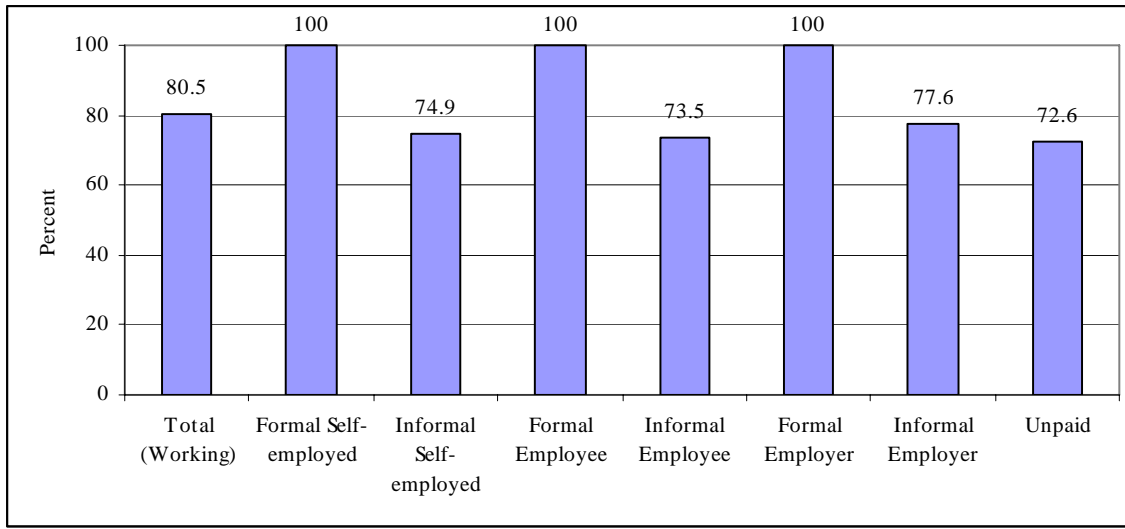
4.29 *Health Insurance.* The situation in health is somewhat different. There are two reasons for this. First, when a formal worker affiliates to the contributory health regime, his or her immediate family members are also covered, automatically, by a package of benefits.⁵⁷ Second, the subsidized health regime, the *Regimen Subsidiado*, covers a substantial proportion of Colombia’s poor population. The *Regimen Subsidiado* provides a more modest package of health insurance than the contributory regime to poor workers and their families (classified as SISBEN I or II) if they are not covered by the contributory regime.

4.30 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). As can be seen from the figure, coverage is relatively high – over 72 percent – in all informal sector job categories, including for unpaid workers. It is important to note that 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 designed, for example, for the army, etc.). Yet just over 55 percent of those affiliated with the contributory regime actually contribute. Close to 45 percent of individuals who report being part of the contributory regime are actually beneficiaries (dependents) of formal sector workers who make contributions; they do not contribute directly themselves. All-in-all, less than one-third of covered individuals actually make health contributions, while over two-thirds are either part of the subsidized regime or are covered by contributing household members.⁵⁸

⁵⁷ Dependents of contributing formal sector workers are covered by a somewhat more modest package than are the contributing workers themselves.

⁵⁸ 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.

Figure 4.5: Health Insurance Coverage* among Active Workers in Colombia, 2006
(percent of workers)



Source: Bernal (2007).

* Includes coverage both by the contributory and subsidized health regimes.

4.31 As with pensions, the ECH 2006 asks those who do not make health insurance contributions to the contributory regime the main reasons why they do not. In the case of health insurance, in contrast to pensions, the main reason informal workers report for not contributing relates to the fact that they are already covered by the contributory regime, as a beneficiary of another worker's (family member's) policy or by virtue of participating in the subsidized regime (*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 via one program or the other (table 4.2). For those who are not already covered by health insurance, however, the main reason reported for not contributing is workers' ability to afford health insurance. Indeed, 27.0 percent of all workers and 31.7 percent of informal self-employed workers indicate that they can't afford to purchase contributory health insurance.⁵⁹ 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 report those reasons, respectively. As would be expected, these two reasons are relatively more important for informal salaried workers, each accounting for about 9 percent of their responses.

⁵⁹ 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.b). These patterns are also consistent with recent evidence from other Latin American countries (see Perry et al 2007 for evidence from the Dominican Republic).

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

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

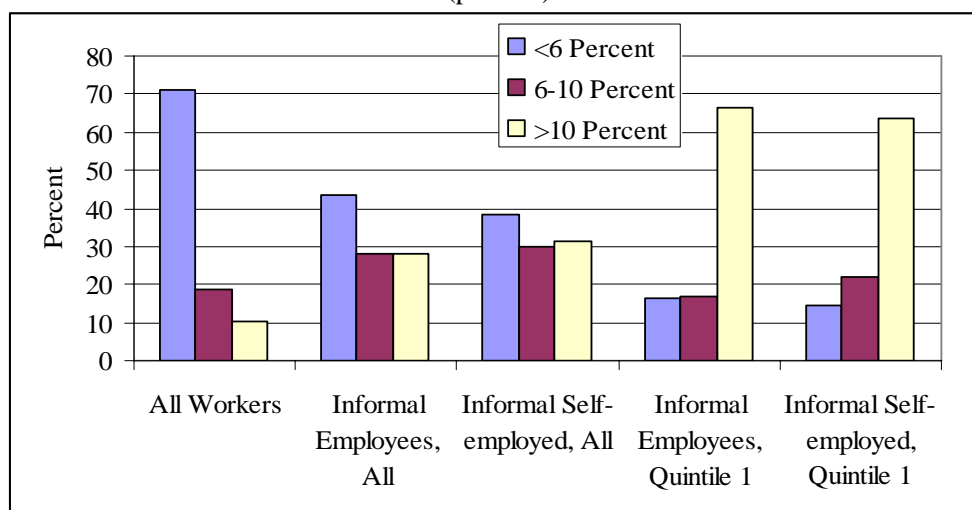
Source: Bernal (2007)

4.32 The Government of Colombia has made universalization of the health coverage either through the contributory or subsidized regime (or a proposed partially subsidized regime) a policy goal, but historically access to the *Regimen Subsidiado* has been rationed as a result of limited fiscal capacity. As a result, not all families categorized in SISBEN I or II are covered by the subsidized regime. For this reason, one can still see in the data the expected patterns of reported inability to afford health insurance (among the uncovered) by income quintile. For example, 31.8 of all workers and 35.9 percent of informal self-employed workers in the poorest quintile report they cannot afford to make health insurance contribution, compared to only 17.7 all uncovered workers and 19.9 percent of informal self-employed workers in the wealthiest quintile. Even with the *Regimen Subsidiado*, logistic regressions show that workers in the poorest income quintile are significantly less likely to have health insurance 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 percentage points less likely to have coverage than are those in the highest quintile, controlling for other factors.

4.33 Concern for the affordability of health insurance by poor workers 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 making health insurance contributions, 18.6 percent of the working age population contributes between 6 and 10 percent of their monthly earned income, 10.1 percent contributes over 10 percent, while the remaining 71.3 percent contributes less than 6 percent. The relative costs among poor contributors are higher. Among workers in the poorest quintile who make health insurance 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 over 10 percent (Figure 4.6).

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

4.34 Levels of health insurance coverage are significantly higher than for pensions – due both to the *Regimen Subsidiado* and to policies under the contributory regime that focus on family versus individual coverage. 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 levels in health, 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

4.35 A recent study of informality in Latin America found that lack of sufficient information about social protection programs and their benefits often represents 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 the social protection programs and their rights to benefits as among the key barriers to contributing to health insurance and pension schemes (SOURCE). While the ECH don't collect quantitative data on worker's knowledge, anecdotal evidence from Colombia suggested that information problems may also affect adversely informal workers' access to social protection, most notably among poor, less educated workers.

4.36 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 uncovered 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. The knowledge that they do have is often quite general, lacking details on program benefits and procedures. Focus group and individual interviews suggest that this relatively low level of knowledge reflects a lack of both experience and exposure to the formal sector work or benefits over their work histories. Low-income, informal workers in the study often had considerable job mobility within the informal sector, but lacked much (if any) exposure to the formal sector.
- In general, knowledge among low-income informal workers is better on health than on pensions. This reflects greater exposure to/participation in health insurance via the *Regimen Subsidiado* than to pensions – although some of the 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 (controlling, notionally, for income and job-type).
- 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 movement from SISBEN I and II to 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 clearer and more detailed understanding of social protection programs, as well as their rights and entitlements than informal workers at any given income level.
- The knowledge that low-income, informal workers obtain on social protection does not tend to come through formal (job-related) or governmental channels. Information on health insurance, pensions and other benefits, tends to come informally via other workers with greater experience in those areas. 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.

4.37 While it is not completely clear from the CIDER study the extent to which lack of information on social protection is an impediment to workers’ obtaining social protection (as is reported by workers in Bolivia and the Dominican Republic), it is almost certain that the low level of information available, especially to low-educated, low-income workers, limits their ability to claim their rights and entitlements to protection under Colombian law.

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

4.38 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 – *inadvertently* – 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 it is argued, for example, if employers face high non-wage costs of employing workers, significant labor market rigidities, or high and binding minimum wages, these may cause formal employers to hire fewer workers than they would in the absence of these costs. Some workers who are rationed out of the formal sector may find alternative employment in the informal sector.

4.39 Other workers opt into the informal sector, the result of an explicit or implicit assessment of the costs and benefits associated with formal versus informal employment (and in light of their personal characteristics, preferences, and endowments). Part of the explicit or implicit calculations that leads to the “exit” of these workers from the formal sector, it is argued, may relate to the design or implementation of social protection programs and policies, and about workers perceptions about 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* in health) that provide access to similar types of benefits.

4.40 The debate is an important one, but one that is important to answer empirically, so that if important trade-offs between policy objectives exist, they can be managed appropriately. So, against this background, what does the empirical evidence have to say about these potential impacts? If they exist, how important are they? The section that follows addresses these questions, building on recent and newly commissioned evidence.

The Minimum Wage

4.41 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, following on Honduras.

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

	Mw/median	Mw/10th percentile
Argentina	33	67
Brazil	43	100
Bolivia	34	80
Chile	55	109
Colombia	68	100
Mexico	48	87
Uruguay	27	64

Source: Maloney and Nunez (2004).

4.42 Colombia's minimum wage is not only high, but 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 suggested that the minimum wage alters the wage distribution for at least some formal sector workers.⁶⁰ Interestingly, the evidence also indicates that the minimum wage also affects the wage distribution in the informal sector. Several recent analyses indicate that Colombia's minimum wage has had a positive effect on 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 benefits of the minimum wage appear to be concentrated among workers at the 45th–60th wage centiles in the wage distribution, i.e., among workers who earn 2-3 minimum wages (Arango and Pachon 2004). No clear wage impacts are detected among the very poor.

⁶⁰ 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.

4.43 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 the formal 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. At the same time, it is clear that increases in Colombia's 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). As such, minimum wage policy in Colombia appears to be contributing in an important way to labor market informality – via the route of exclusion.⁶¹

High Non-wage Costs

4.44 As discussed in Chapter 2, Colombia has among the highest cost levels of non-wage costs in Latin America. By the beginning of 2008, non-wage costs – the collection of payroll taxes and “parafiscales” collected to finance pension and health benefits, and severance pay, worker training, child welfare programs and workers' clubs – were around 55 percent of total payroll (see Box 2.1 for details).⁶² A large body of empirical literature from Latin America and elsewhere shows that high rates of payroll tax 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.

4.45 A recent study on Peru by Saavedra and Torero (2004) examine 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). If combined with deductions of VAT paid on capital investment, the authors find that eliminating payroll

⁶¹ 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 fiscal sustainability of the system if, for example, the government were to want to expand coverage of the minimum pension.

⁶² 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.

taxes on unskilled workers would lead to a decline in informality of 1.5 percent.⁶³ 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 find a range of estimates, depending on methodology used, in all cases they show that higher levels of non-wage costs lead to greater levels of informal employment (Perry et al 2007).

4.46 Evidence from Colombia is consistent with the broader body of 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 high estimated wage elasticities that suggest that the increase in non-wage costs in the early 1990s would have led to a substantial drop in labor demand.

4.47 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 informal employment, taking into account changes in both labor demand and supply. In terms of unemployment, the study finds that unemployment rates in Colombia starting in the late 1990s were between 1.0 and 1.8 higher than they would have been in the absence of the increase in non-wage costs. Applying co-integration analysis, the study also finds that increases in non-wage costs contributed to increased informality during the period (World Bank 2005). In addition to the findings on its effects on unemployment and informality, the study finds that like high minimum wages, high non-wage costs has been an important contributing factor related to the increase in 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

4.48 Perry et al (2007) examine the role that various aspects of the design of social protection can have on incentives to be formal or informal by affecting the relative benefits and costs workers face for affiliating to social security (or not). The study highlights a number of factors related to the design of social protection that could affect the relative costs and benefits that workers see with respect to participating – or not – in formal social security programs, including: (i) physical accessibility of benefits and services for affiliated workers (e.g., due to supply constraints and the physical proximity of services); (ii) the quality of services offered through the formal social security (relative to

⁶³ 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).

alternatives); (iii) workers' valuation of the multi-dimensional, "bundled" benefits packages that workers are required to "purchase" via payroll taxes; (iv) design features of contributory health insurance programs that require secondary workers in a family to pay a second time for the same or similar coverage; and (iv) program rules that do not account well for labor movement in and out of the formal sector. Perry et al (2007) also examine how co-existence of parallel contributory and non-contributory programs (e.g., in health) confront workers with the explicit dilemma of whether or not it pays to contribute.

4.49 The sections that follow focus on a sub-set of these issues that are particularly relevant to the current policy discussions in Colombia, specifically: (i) workers' valuation of the "bundled" benefits packages; (ii) program design that requires secondary workers in a family to pay for benefits they already receive as dependents; (iii) the incentive effects of "competing" contributory and non-contributory insurance programs in health; and (iv) program rules that do not account well for labor movements in and out of the formal sector.

4.50 *Workers' Valuation of "Bundled" Benefits Packages.* Payroll taxes and parafiscales in Colombia "purchase" a bundled package of social security benefits and services. This package includes health insurance, pensions, professional risk insurance as well as 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, and recreation facilities and services (see Chapter 2 for contribution to each service, Box 2). Some components of the package go directly to the worker and/or their families (e.g., health insurance, pensions, professional risk insurance, and training opportunities), while other components benefits do not (e.g., the "solidarity" component of health insurance payments, equivalent to 1.5 percent of the worker's salary, or family and child welfare services provided via ICBF).

4.51 While some workers may value *all* elements of the package, others may only value *some* of them. For example, while some workers may value highly the recreational services associated with the *Cajas de Compensación Familiar*, others may not value them very much (or at all). Similarly, some workers may appreciate the opportunity to make solidarity contributions, 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, there may be situations in which workers believe they won't ultimately receive the benefits that they contribute to. If, for example, workers lack confidence in the Government's ability or commitment to pay them their pensions 20 years in the future, then they may view making pension contributions as a pure tax.

4.52 Evidence from other Latin American countries suggests that the issue of the valuation of bundled benefits is potentially important. In Mexico, the benefit package offered by IMSS, the social security institute for private sector workers includes eight

mandatory components: (i) health insurance, (ii) retirement pensions, (iii) disability insurance, (iv) professional risk insurance, (v) life insurance, (vi) day care centers for workers, (vii) sports and cultural facilities, and (viii) housing credits. Recent analysis of the system suggests that weaknesses in several pieces of the package create disincentives for workers to affiliate to social security as a whole. For example, traditionally, IMSS own employees have acquired rights to particularly generous pensions upon retirement. These pension liabilities are increasingly underwritten by private sector affiliates' health insurance contributions at the expense of IMSS-provided health services. In fact, according to IMSS's own analysis, by 2018, the amount of money available for health spending per *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.⁶⁴ 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.

4.53 Evidence on how bundling of social security benefits affects incentives for worker affiliation is relatively scarce in Colombia, and further investigation is certainly warranted. Nonetheless, some suggestive evidence does exist with respect to pensions. Specifically, as noted earlier in the chapter, several informants for the CIDER study (2007) expressed a lack of confidence in the Government on the issue of pensions and, specifically, concerns about whether pension contributions (if made) would actually be available to them many years into the future when they retire. Such concerns about pensions create disincentives for affiliation to the entire package, regardless of workers' perspectives 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.⁶⁵

4.54 *Requiring Secondary Household Workers to Pay for Benefits They Already Received as Dependents.* A common feature of formal social security in Latin America relates to the fact that contributory health insurance programs cover not only the formal sector worker, but their immediate family. However, when an additional member of the same immediate family – say the male earner's wife – enters a formal sector job, they are

⁶⁴ Recent changes in the administration of the IMSS housing benefit more easy to 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.

⁶⁵ 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.

required to contribute individually (and additionally) for insurance benefits that they were already entitled to as a dependent (or informal sector worker). In other words, when a second worker from the same immediate family enters the formal sector, they are required to contribute via payroll taxes to health insurance benefits, some or all of which they already had before entering the formal sector. In such circumstances, the second family earner may face marginal costs of contributing that are higher than the benefits they get 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; in fact, the authors estimate that this phenomenon led to a 13 percent increase in informality between 1974-76 and 1999.

4.55 It is unclear how serious this problem is in Colombia. In contrast to some other countries in the region, dependent family members do not receive the same benefits as the directly contributing formal sector workers. They receive a more modest package of benefits, which means that there are additional benefits associated with a dependent entering the formal sector and participating in the contributory health insurance system. At the same time, there are at least a couple of reasons why this feature of the contributory system 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 value highly the additional health insurance benefits associated with direct affiliation to the formal sector system. If so, they may consider that the marginal costs associated with payroll taxes exceed the marginal benefits associated with access to the expanded healthcare package. Second, given the generalized lack of specific information workers appear to have about Colombia's social security programs, it may be that many workers do 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" on their earnings, with no marginal benefits associated with direct affiliation.

4.56 Is anything known empirically about this issue in Colombia? Camacho and Conover (2007) analyze the incentive effects of Colombia's social protection system on workers' choice between formal and informal employment using a sample of workers from SISBEN household survey. They argue that strategic avoidance of "paying twice" for similar benefits package is likely not be an important cause of informality in Colombia. Estimating a probit regression of the correlates of urban informality they find that having a higher proportion of formal workers in the household is negatively and significantly correlated with a worker being informal, controlling for other factors. While they do not find direct evidence of households making joint decisions about being formal, they do find a tendency for formal workers to live with other formal workers and for informal workers to live with other informal workers. At the same time, analysis of the 2006 ECH suggests that the incentive effects may not be trivial either. Close to 45 percent of individuals who report being covered by the contributory regime indicate that they are beneficiaries linked

to other household members who contribute, rather than formal sector affiliates who contribute directly (Bernal 2007).

4.57 “Competing” Contributory vs. Non-contributory Programs – *The Contributory and Subsidized Regimes in Health*. As noted above, Colombia’s *Regimen Subsidiado* in health plays an important role in providing insurance coverage for poor Colombians. The ECH 2006 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 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 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 (see Levy 2007, Perry et al 2007). In this context, questions have arisen regarding if – and to what extent – the *Regimen Subsidiado* creating incentives for workers to stay – or become – informal in Colombia.

4.58 Levy (2006b) models the labor market decisions of utility maximizing workers between the formal and informal sectors, given a predetermined and mandatory (take-it-or-leave-it) 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. Workers may differ in their valuation of social security benefits as a result of inherent differences in preferences or due to differences in the quality of program benefits and services. When workers’ valuations of the relative benefits differ, 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 and policies 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.

4.59 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 survey. The study outlines several factors related to the contributory and subsidized regimes that could affect workers’ preferences for formal versus informal employment. It then assesses in general terms the key factors that are associated with informal work among workers in the sample. The study then estimates empirically the effects of the subsidized regime on informality.

4.60 Camacho and Conover (2007) highlight several factors that might affect workers' relative preferences for affiliating to the subsidized or contributory regime, under the basic assumption that workers are able to move between sectors and that they explicitly or implicitly assess the relative benefits and costs of being formal versus informal on the basis of the relative costs of affiliation, the relative size and quality of the health services plan under each regime. Formal sector workers contribute 4 percent of their salary to contributory health insurance, while the subsidized regime is free of charge to eligible families. At the same time, the contributory regime offers a more comprehensive package than the subsidized regime.⁶⁶ In this context, the authors note that:

- 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 higher cost of enrollment. Alternatively, categories of 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.
- Worker's preferences may also be a function of family size and composition. The contributory regime allows enrollment for only a restricted group of immediate family members. Additional family members need to be paid for. In contrast, for eligible families, the *Regimen Subsidiado* allows enrollment of any member of the family unit, regardless of family link. Together with lower cost, the less restrictive enrollment rules for family members and dependents under the *Regimen Subsidiado* induce some low-income workers toward informality.
- 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 dependents 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

⁶⁶ 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.

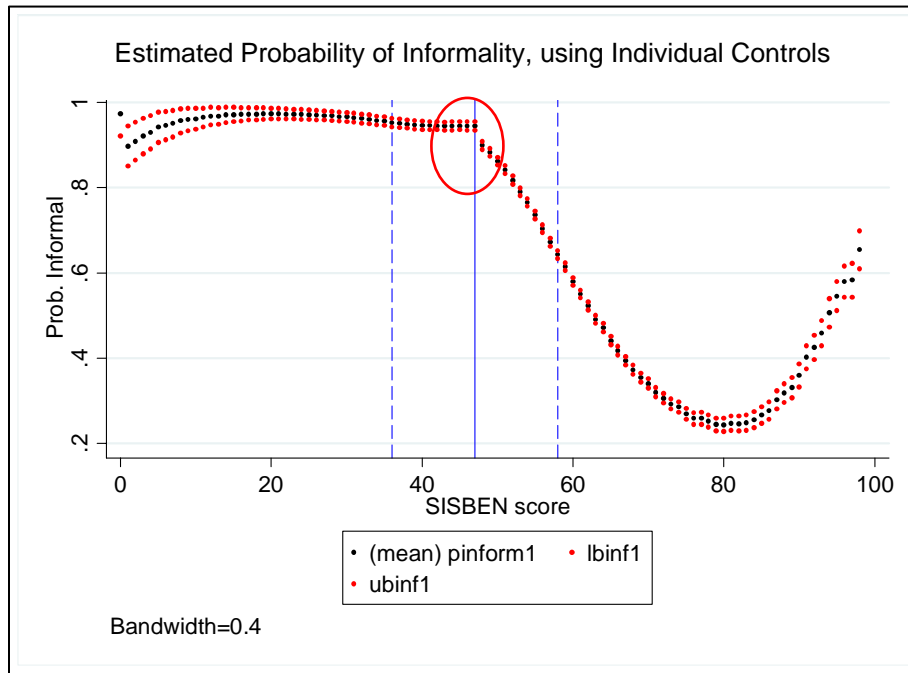
subsidized regime, so people with seasonal jobs or high job tenure uncertainty who are already affiliated with the *Regimen Subsidiado* have historically preferred to maintain that coverage, even if they became eligible for contributory regime. Recognition of this concern has led the Government in 2005 to allow new formal sector employees to maintain their *Regimen Subsidiado* affiliation for one year after getting a formal job.⁶⁷

4.61 To analyze empirically the impact of the *Regimen Subsidiado* on labor informality in Colombia, Camacho and Conover (2007) use a “regression discontinuity” framework. This methodology takes advantage of the fact that there is a fixed eligibility threshold for the *Regimen Subsidiado* between families categorized as SISBEN II and those categorized as SISBEN III. The idea is that workers just above and just below the *Regimen Subsidiado* threshold have almost identical in terms of personal and household characteristics and can, thus, with the proper statistical controls, be thought of as treatment and control groups in terms of the effects of eligibility to the *Regimen Subsidiado* on informal versus formal employment. Specifically, the authors are looking for a “discontinuous” increase in the share of informal workers below compared to above the program eligibility threshold, controlling for other factors. If so, this would suggest that otherwise similar workers (around the eligibility threshold for the program) are more likely to informal due to their access to the subsidized regime.

4.62 The authors undertake several series of estimates in the paper, including differences in means, non-linear functional form estimations, and estimations exploiting the variation in implementation dates across municipalities. They control for a series of individual and household factors that might affect the individual’s labor supply choices. In estimating the non-linear functional forms, Camacho and Conover find a small discontinuous jump of the probability of being informal at the program eligibility threshold, suggesting that the *Regimen Subsidiado* does have a positive and statistically significant impact on labor informality, but one that may not be very important quantitatively (Figure 4.7). While the size of the impact is apparently not vary large, it is consistent with anecdotal evidence in Colombia suggesting that access to the subsidized regime does indeed influence workers’ choices between formal and informal employment. These choices may be influenced purely by workers’ preferences or by firms that are trying to reduce their costs associated with paying for formal sector benefits. On this latter point, interviews with informal salaried workers in SISBEN I and II revealed that employers commonly “require” potential hires to obtain insurance – either through the *Regimen Subsidiado* or through private means – before they agree to hire them (CIDER 2007).

⁶⁷ 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.

Figure 4.7: A Small “Discontinuous” Jump in Informality can be detected Below the *Regimen Subsidiado* Eligibility Threshold



Source: Camacho and Conover (2007)

4.63 If the *Regimen Subsidiado* does have an impact on informality, why does its impact appear to be so small? Camacho and Conover (2007) note that the prevalence of informality among individuals classified as SISBEN I and II was very high even at the early stages of the implementation of the program. These high rates of informality among the population being analyzed, they argue, make it difficult to detect a marginal increase in informality due to the *Regimen Subsidiado*.⁶⁸ But there are also substantive reasons why the detected impacts appear quite small. First, as discussed earlier in the report, the labor market in Colombia is segmented in a significant way by virtue of policies like the minimum wage and high non-wage costs that serve to ration workers out of the formal sector. Workers are not completely free to move between the informal and formal sectors based on their preferences and, so the question of whether the *Regimen Subsidiado* causes workers to opt out of formality may be irrelevant in many cases. In addition, for part of its history, access to the *Regimen Subsidiado* was rationed to potentially eligible workers and families in SISBEN I and II, due to budgetary restrictions. While budget restrictions have been relaxed since 2003, historical rationing of spaces in the subsidized regime may have resulted in smaller informality impacts of the program than would have been the case if the *Regimen Subsidiado* had been available to all workers classified in SISBEN I or II since the beginning of the program.

⁶⁸ Camacho and Conover (2007) argue that given the potential importance of these results, further analysis should be done to corroborate the findings using a different data source, for example, the National Household Survey.

4.64 The fact that segmentation in the labor market and fiscal restrictions in the first decade of the program probably served to limit the informality effects of the *Regimen Subsidiado* raises some cautionary notes to policymakers for the future. As additional spaces are made available to affiliate with the *Regimen Subsidiado*, due to Colombia's drive to universalize health insurance during the current government, the disincentive effects for formal employment may well increase. Moreover, if as part of its efforts to increase productivity and competitiveness, the Government were to undertake labor market reforms to increase flexibility and integration of the labor market, the incentives for informality created by the subsidized regime would likely become more important economically. Thus, while the *Regimen Subsidiado* plays a very important role in providing social protection in health 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 (Box 4.1).

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 *Progresá*), 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 *Progresá/Oportunidades* program. Specifically, Parker and Skoufias (2000), Skoufias and Di Maro (2006), and Levy and Rodríguez (200x) analyze the impact of *Progresá* on the labor supply of adults in beneficiary households. None of the studies find 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 are found to 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.

4.65 *Program Rules that Do Not Account for Labor Movements.* Most social security systems in Latin American, including in Colombia, were originally designed under the assumption – prevalent in Europe and the U.S. at the time – that workers spend their entire working lives in the formal sector. From the Latin American perspective, this approach has also been consistent with the long-standing view in the region that flows of workers between the formal and informal sector jobs – and particularly from formal to informal sector jobs – are small. The design of current social security programs in most Latin American countries did not take into account the facts that workers often go through cycles of informal, formal, and then informal employment over the lifecycle, as well as shorter term movements in and out of the formal and informal sectors. Indeed, as discussed in Chapter 3, there appears to be more labor mobility in and out of the formal sector in Colombia than is typically thought, and than was certainly envisioned, or that was envisioned when the “Bismarkian” systems of contributory social security were established.

4.66 Worker mobility in and out of the formal and informal sectors – whether short-term or over the lifecycle – has important implications for workers’ access to social security benefits and, in some cases can fundamentally affect workers’ incentives to affiliate to 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 of time in which they lack access to health insurance and, thus, social protection in health. 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* that now enable new formal employees to maintain their affiliation to the subsidized regime for up to one-year after getting a formal job. But lack of more systematic provisions for worker movement in and out of the formal sector – 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.

4.67 As or 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 career histories to achieve sufficient contribution history 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.

4.68 The current Colombian pension system has as its base Law 100 of 1993, which established a “dual” system, based on two separate pension schemes 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 the 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.

4.69 Both systems require a large number of years to qualify for a pension. In the PAYG system, the minimum number of contributions necessary to qualify for a pension is being gradually increased— from 20 years in 1993 to 26 years in 2015. The retirement ages area also being increased over time: 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. Replacement rates were reduced and the number of contribution wages used to compute the pension was also increased. There is a minimum pension guarantee, to which all workers qualifying for a pension have access. Those workers who do not meet the qualifying conditions (age or periods of contribution) must continue working or withdraw their PAYG balance, which is the sum of their contributions adjusted by inflation (Rudolph et al 2006).

4.70 The individual savings account system has the same contribution rates as the PAYG system. The pension depends on the accumulated savings. Workers enrolled in this system do not have to contribute a minimum number of periods and do not have a minimum retirement age to 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. To have the right to receive the minimum pension guarantee, however, they must have contributed for no less than 23 years.⁶⁹

4.71 Although data regarding the “density” of workers’ pension contributions was not available in Colombia at the time of the writing of this report, evidence from other countries suggests that many, if not most, of Colombia’s pension contributors will have difficulty meeting the pension system’s minimum vesting requirements, if such minimums are enforced. Analysis of contribution densities in Uruguay, for example, suggest 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 similarly suggests that low-

⁶⁹ Colombia’s broader system of old-age security includes other components that are either partially subsidized or non-contributory. For example, 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 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. To date, coverage of the scheme has been relatively low, however. 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.

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).

4.72 Colombia's broader system of old-age security includes other components that are either partially subsidized or non-contributory. For example, the Government implements two non-contributory transfer programs for the elderly – a cash transfer program and a feeding program. These programs are relatively small and are targeted to indigent seniors. More relevant to a discussion about labor mobility and intermittent pension contributions is Colombia's partially subsidized scheme.

4.73 In an effort to raise pension participation, particularly among low-income workers, the Government implements a (partially) subsidized Solidarity Pension Fund (*Fondo de Solidardidad Pensional*, FSP), which was also created under Law 100. The FSP subsidizes the contributions of low-income workers to the public PAYG scheme. The subsidy has a redistributive goal, as it is targeted to poor workers, but it also aims at strengthening incentives to participate in the contributory pension system, as only workers who contribute to the system are eligible to receive the subsidy. To date, coverage of the FPS scheme has been relatively low, however. While the factors serving to segment the labor market – i.e., high minimum wages and high non-wage costs – are likely behind this to some extent (by rationing some workers out of the formal sector), just how strong the incentives created by the FSP are for workers who move in and out of the formal sector is not clear. Moreover, it is likely that other issues raised in this chapter, such as lack of information about the program among low-income workers and/or lack of ability of poor workers to save contribute to low levels of contributions among significant segments of the labor force.

Conclusions and Implications for policy

4.74 This chapter has examined the two-way relationship between labor informality and social policy – both what informality means in terms of coverage by basic risk management instruments in health and old-age income security, and the extent to which the design and implementation of social policies in Colombia may actually contribute to labor informality (even if inadvertently). To do this, the chapter has examined new empirical evidence on people's demand for social protection, actual coverage of health insurance and pensions, and people's willingness – and ability – to pay for social protection (given that working in the formal sector implies payroll tax contributions in return for protection). It also examines the extent to which information problems affects both workers' demand for and access to social protection programs in the face of informality. Against this background, the chapter then examines evidence on how selected social policies and programs affect levels of informal employment, and in what ways. Particular focus is placed on the impacts of Colombia's minimum wage policies, high non-wage costs associated with formal employment (*parafiscales*), and the design of existing social protection programs.

4.75 While no single measure in the 2006 ECH captures fully worker demand for social protection, several indicators point to significant demand for social protection services on the part of both formal and informal sector workers. Drawing on several different indicators and measures, the evidence also shows that significant portions of the informal labor force – both self-employed and salaried workers – would be willing to pay or given 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 demand for social protection in Colombia, particularly among low-income workers. Most strikingly, while interviews indicated that low-income workers generally place a relatively high value on social protection in health, their views about the value of pensions was more mixed. For example, while respondents expressed an understanding of the need for old age security, many also expressed a preference for current as opposed to future benefits and services. In this context, some respondents highlighted the desire to see more flexibility in social protection instruments that would give them access to saving in the short- as well as long-term and that took account of variability and/or seasonality of workers' income streams.

4.76 The ECH data also show significant differences in the level of health and pension coverage (that are, interestingly, 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 subsidized regime, the *Regimen Subsidiado*. Health coverage is also fairly evenly distributed across categories of jobs and workers; even informal workers and their families experience coverage rates of upward of 72 percent due as a result of the *Regimen Subsidiado*. High health insurance coverage stands in stark contrast to low pension coverage; only around 29 percent of the working age population reports being covered. Moreover, there are stark differences across job and worker categories. While formal sector workers experience full coverage (by definition), informal workers are almost completely uncovered. Only around 8 percent of informal employees, the most covered informal workers, report having pension coverage.

4.77 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 over 80 percent of workers in the poorest quintile report that 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. In the case of 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 do not do so because they are already covered, either as a beneficiary (dependent) of a contributing worker or by the *Regimen Subsidiado*. Nonetheless, among those who are not covered, the largest single response is that they cannot afford the contributions. Roughly 58 percent of all uncovered workers and 73 percent of uncovered workers in the

poorest quintile report that the main reason they do not contribute to health insurance is that they cannot afford it.

4.78 The focus group and key respondent interviews also suggest that lack of information and knowledge about social protection programs also plays a role. Indeed, low-income, informal workers interviewed tended to demonstrate a low level of functional knowledge about social protection programs and procedures. In general, informal workers' knowledge on health insurance is better than on 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 workers' education and income levels. Indeed, workers with higher levels of education and/or with higher incomes demonstrated clearer and more detailed understanding not only of social protection, but of their broader rights and entitlements as workers.

4.79 Beyond workers' demand for and knowledge of social protection, the chapter investigated evidence on how selected social policies affect informality in Colombia, focusing on the country's minimum wage policies, high non-wage costs of formal employment and the design of social protection programs themselves. The evidence indicates that each of these sets of policies and programs does contribute to high levels of informality in Colombia in its own way, even if inadvertently. The evidence shows, for example, that high minimum wages and high non-wage costs are important segmenting forces in the Colombian labor market and, as such, contribute to higher informal employment by rationing out of the informal sector some workers who would prefer to be formal. At the same time, several features of the design of social protection affect the relative benefits and costs of social security that informal workers perceive and, in doing so, appear to affect (some) workers' decisions about whether or not to be formal. Among the key design features include: the "bundling" of multiple benefits into a single social security package (some of which workers may not value); design features of contribution health insurance that require secondary household workers to pay for benefits they already received as dependents; "competing" contributory and non-contributory programs in health (specifically the *Regimen Subsidiado* which, at the margin, appears to create incentives for informality); and design features of contributory health and pension programs that do not account well for labor mobility in and out of the formal sector.

4.80 What do these findings imply for policies to reduce informality and to increase coverage of social protection for Colombia's citizens? Given the balance of exclusion and exit in the informal sector, among the most effective ways to support growth in the formal sector would be to address the high minimum wage and high non-wage costs of formal employment – the key segmenting forces in Colombia's labor market. Indeed, efforts to constrain real growth of the minimum wage over time along with measures to reduce high non-wage costs would make important contributions to promoting increased formal sector employment and reducing the share of workers in the informal sector. Feedback received by the World Bank team during discussions with government counterparts indicates, however, that addressing these two issues will likely to be very difficult in the near-term.

This, unfortunately, limits the degree to which informality can be reduced through labor-related interventions.⁷⁰

4.81 The main instruments available to the government in the short-term are, thus, related to strengthening the design and increasing coverage of social protection in the face of continued high levels of informality. Policy approaches to strengthening social protection can take two routes. One route, as discussed above, would involve strengthening the design of existing social protection programs to raise the benefits and lower the costs workers perceive with respect to affiliating to 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 to social protection focused on redefining the nature of social protection to make social protection services more broadly available to people on the basis of a concept of “citizenship” rather than on the basis of the concept of a “worker” narrowly defined (i.e., on the basis of one’s labor contract), and to do so in an “incentive compatible” way. Again, this would involve attention to the incentives generated by the system as a whole to ensure that programs do not generate incentives for informality.

4.82 These two routes are not mutually exclusive, but are rather complementary. Indeed, these two routes are developed jointly in the recent World Bank Flagship study on informality in Latin America, *Informality: Exit and Exclusion* (Perry et al 2007). Perry et al (2007) map out a *long-term* agenda for social protection based on ensuring protection against key risks to all citizens, regardless of their labor status, in the face of persistent informality. In the case of health, the authors argue that because health shocks that go “uncovered” can impose significant external costs on society, there is a case for providing a package of “minimum essential cover” to *all* citizens, de-linked from the labor contract and financed through general taxation. The 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 more broadly – the authors make the case to provide essential cover, but this time in the form of a poverty-prevention pension targeted toward the poor, and as part of a broader multi-pillar pension system that includes at its core provisions for individual retirement savings. In both the cases of health and pensions, the approach focuses on ensuring basic coverage of the population while taking into account the labor market and savings incentives put in place by the structure and design of the relevant programs.

4.83 Because movement toward a system of social protection that provides coverage on the basis of citizenship, rather than on the basis of the labor contract, likely constitutes a long-term policy agenda for most countries in Latin America, Perry et al (2007) outline a

⁷⁰ As will be discussed later in the report, there are a number of avenues through which labor informality can be addressed through promoting greater firm formality as well as through efforts to increase the governments institutional and enforcement capacity.

short-to-medium term policy agenda focused on improving the efficiency and incentive compatibility of existing social protection programs in ways that are consistent with – and move countries toward – the longer term vision. This agenda centers around efforts to improve the benefit-cost ratios of programs to induce more workers to prefer formal sector employment via:

- un-bundling of complex, multi-dimensional benefit packages,
- implementation of measures to improve the efficiency of countries' health and pension systems via design improvement and institutional strengthening at the micro-level, and
- increasing coherence and incentive compatibility of programs through the harmonization of programs rules, eligibility requirements, and benefits levels.

Such measures, it is argued, will help prepare the foundation for a more effective and inclusive system of social protection.

4.84 Working to strengthen and expand social protection via the two complementary routes – in a phased manner – seems a reasonable strategy in Colombia. In the context of health, for example, such an approach could involve: (i) building on and consolidating the recent accomplishments and lessons learned by the Government in extending health insurance to a broad swath of the population, while (ii) continuing to strengthen the efficiency, coherence, and incentive compatibility of the country's health insurance system. This latter route could involve greater attention to improved incentive compatibility and integration of the different components of the system – i.e., the contributory and subsidized regimes – to reduce or eliminate any incentives for informal employment. While empirical evidence on the informality effects of the *Regimen Subsidiado* suggests that the impacts are relatively small at present, it will be important to ensure that these effects do not become more pronounced as the country's continues to develop and mature.

4.85 In the context of old-age income security, Colombia faces greater challenges, as the country has further to go to provide such security on the basis of citizenship. Nonetheless, the Government can build on the base of 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 (BEP)⁷¹ – while strengthening the provisions for individual savings for old-age. As in the case of health, it would be

⁷¹ The BEP 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. As of the time of writing this report, the exact parameters of the program are still under consideration.

important to focus on greater integration and incentive compatibility of the “system” of old-age security. This will likely represent a bigger challenge in the case of old-age income security than in the case of health because, among other things, to date the Government has not tended to view the contributory and non-contributory programs as part of a larger (and potentially coherent) system of old-age security for all Colombia’s citizens.

4.86 A broad approach that follows the two complementary routes – such as that outlined above – can help the Government of Colombia frame a short- and long-run policy agenda for strengthening and extending social protection in the face of high and persistent informality. The broad parameters of such an approach have been outlined briefly here. What this process might look like, in terms of concrete steps in the short-, medium- and long-terms, is discussed in more detail in Chapter 6. Before further elaborating possible policy approaches for strengthening social protection in the face of continued informality, however, Chapter 5 examines the issue of firm informality in Colombia.

5. Firm Informality in Colombia⁷²

Introduction

5.1 Whereas informality has been defined in a number of different ways in the economic literature, it has in most cases been associated with negative economic outcomes, such as unprotected work, low firm productivity and tax evasion. As argued by Perry *et al.* (2007), however, there is considerable evidence suggesting that the sector is fairly heterogeneous, with workers and firms that have been *excluded* from the formal economy coexisting with others that have *opted out* on the basis of implicit cost benefit analysis.⁷³

5.2 Understanding this heterogeneity of the informal sector, as well as the various factors taken into account by those individuals and firms which voluntarily decide to “take their business” to the informal economy, is critical for the design of public policies. Indeed, even in those cases when informality is driven by *exit* and not by *exclusion*, there are good reasons for policy makers to want to move away from a social equilibrium in which a large number of workers lack protection from negative shocks and where the informal status of many firms limits their productivity and growth potential. Moreover, informality contributes to reduce the “fiscal space” that governments have for investing in the provision of basic public services, which as argued below may further reduce the incentives of firms and individuals to participate in the formal economy.

5.3 With this motivation, the objective of the present chapter is that of analyzing the role played in the specific case of Colombia of various potential *determinants* of informality among firms, as well as illustrating some of the *consequences* that informality appears to have on firm performance. In this respect, however, it is important to stress from the outset that there are considerable methodological challenges associated with distinguishing between the negative impacts that informality has on the productivity of many firms, from causal effects that operate in the opposite direction.

5.4 In particular, among informal microenterprises, the prevalence of low productivity is in many cases a cause of informality and not a consequence of it. For example, 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

⁷² The chapter relies heavily on a paper prepared for this study by Cardenas and Rozo (200&), “*Informalidad empresarial en Colombia.*”

⁷³ The remainder of this introduction is based on Perry et al. (2007).

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. Indeed, whereas formality could offer the possibility of gaining access to wider markets and government services, the latter are not always a necessity for those very small and unproductive businesses. 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.

5.5 On the other hand, however, another group of informal but higher productivity microfirms may be stymied in their expansion by high costs 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 – due to the high costs involved – could indirectly reduce their access to services and markets. Their unfavorable performance would in this sense be a consequence of informality rather than a cause. 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 of entrepreneurs – located farther away from the above 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.

5.6 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 a fraction of 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 as a result 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.

5.7 This opportunistic behavior, however, 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. In this context, policy interventions aimed at reducing evasion – or informality among formal firms – are likely to require both “sticks” and “carrots”. The former include efforts to modernize the enforcement techniques used by the authorities, for instance through improved tax auditing systems and an efficient use of information and communication technologies (ICTs). These actions, however, 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. 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.

5.8 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. Section 3 assesses the relative importance of various potential determinants of informality in Colombia. Section 4 reviews the evidence on the consequences of informality in Colombia. The policy implications derived from the above data and analysis are presented in the final section, which also offers some concluding remarks.

The Incidence of Informality

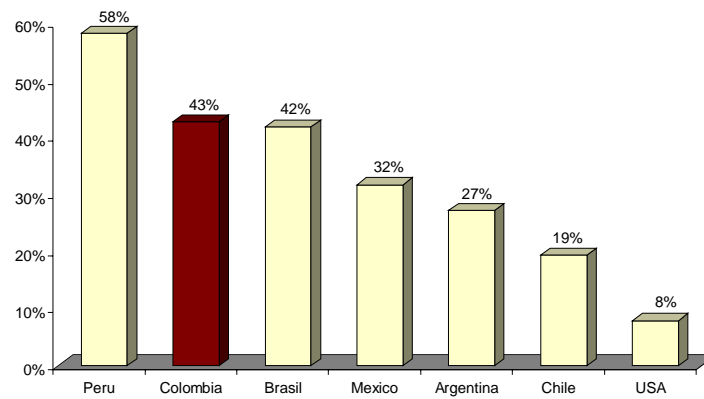
5.9 Measuring firm informality is extremely difficult. Indeed, informality can take many different forms and intensities and it can hardly be described as a dichotomous condition. In particular, while many very small firms can be safely characterized as informal because of their complete avoidance of 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.

5.10 As an example, many Colombian microfirms are registered but do not pay taxes while others pay taxes but not social security contributions. In other words, as evidenced by data from Colombian microenterprise surveys, many firms are formal in one sense but informal in others. To complicate things, even among those firms that declare to be in full compliance with government regulations it is unlikely that all of them fully report their sales for tax purposes, or that all of them fully observe minimum wages or mandated worker benefits. Indeed, estimates by the Colombian tax authority suggest a considerable – even if decreasing – incidence of tax evasion, while firm level surveys conducted by the World Bank suggest that partial non-compliance with tax and social security regulations is common place even among medium and large firms.

International Measures of Informality

5.11 The level of informality in Colombia according to the available internationally comparable indexes is generally similar to those 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 represents about 43 percent of Colombia's GDP (Figure 5.1). Whereas this is similar to Schneider's estimate for Brazil (42 percent) and lower than the one for Peru (58 percent), the size of Colombia's shadow economy would be larger than those of Mexico (32 percent) and Argentina (27 percent). Moreover, according to Schneider, the level of informality in Colombia would be more than twice that of Chile (19 percent) and more than five times that of the U.S. (8 percent). Schneider (2007) defines the shadow economy as including "all market-based legal production of goods and services that are deliberately concealed from public authorities."⁷⁴

Figure 5.1: Shadow Economy as percent of GDP (2004-2005)



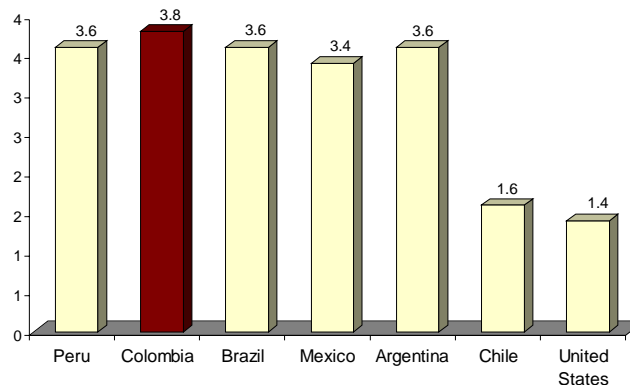
Source: Schneider (2007).

5.12 Whereas this definition is consistent with the conceptual approach employed in this report, a number of caveats should be mentioned regarding Schneider's empirical methodology. The latter combines the dynamic multiple-indicator-multiple-cause (DYMIMIC) method, the physical input (electricity) method, and the excess currency-demand approach. As argued by Perry et al. (2007), Schneider's use of the DYMIMIC method can be criticized for its atheoretical combination of different causal factors and indicators, as well as for the sensitivity of the results to data transformations and changes

⁷⁴ Schneider mentions the following motivations for keeping certain activities in the shadow economy: "(i) to avoid payment of income, value added or other taxes, (ii) to avoid payment of social security contributions, (iii) to avoid having to meet certain legal labor market standards, such as minimum wages, maximum working hours, safety standards, etc., and (iv) to avoid complying with certain administrative procedures, such as completing statistical questionnaires or other administrative forms."

in sample and measurements units. As for 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 the above 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, which are both questionable.

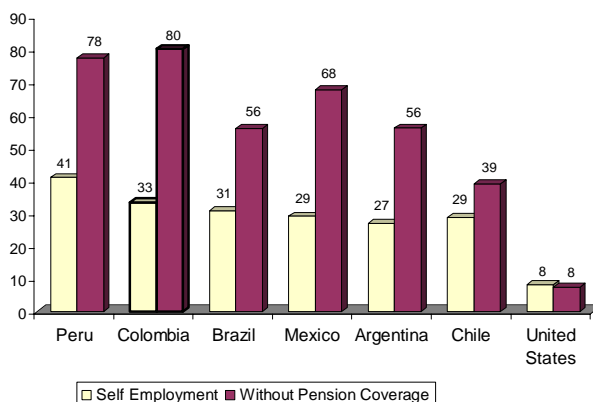
Figure 5.2: Heritage Foundation Informal Market Index (range 1-5)



Source: Heritage Foundation (2005).

5.13 Because of the above caveats, it is useful to assess whether other international data sources yield rankings that are consistent with those implied by Schneider’s calculations. Alternatives include the Heritage Foundation 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 to the law, with particular emphasis on the role played by official corruption. It suggests that informality in Colombia – where the corresponding index is 3.8 in a scale from 1 to 5 – is only slightly above the levels found in Peru, Brazil, Mexico and Argentina – which have indexes varying between 3.4 and 3.6 (Figure 5.2). Consistently with Schneider, however, the Heritage Foundation places Chile and the U.S. well below the above countries, with informality indexes of respectively 1.6 and 1.4.

Figure 5.3: Self Employment and Workers without Pension Coverage (% of labor force)



Source: ILO, collected by Loayza and Rigolini (2006) and World Development Indicators (2006).

5.14 As for the indexes of labor market informality (Figure 5.3), they 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 5.1 to 5.3 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.

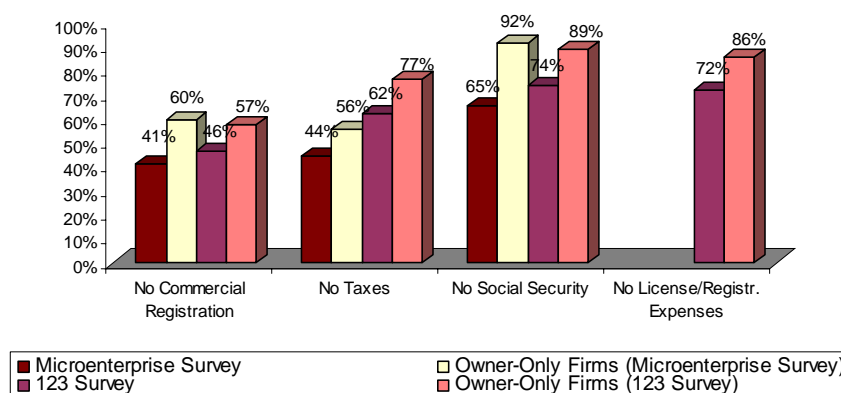
Survey-Based Estimates of Firm Informality

5.15 To complement the above international comparisons, it is useful to examine local estimates of the level of informality among firms surveyed by the Colombian statistical agency (DANE). In this respect, 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 specific definition of informality and the data source that are employed. This is illustrated in Figure 5.4, which is based on data from the 2002 and 2003 microenterprise surveys and the 2001 “123” survey, all of them performed by DANE.⁷⁵ Figure 5.4 shows that between 41 and 46 percent of Colombian microfirms lack a commercial registration (at the “registro mercantil”). Informality is more prevalent, however, when defined on the basis of not paying taxes (respectively 44 and 62 percent depending on the data source), not paying social security contributions (65 and 74

⁷⁵ 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; (c) not incorporated.

percent), or not reporting licensing or registration expenses (72 percent).⁷⁶ Whereas these rates are quite high, similar surveys performed for Mexico and Brazil yield even larger rates of informality among microenterprises: respectively 63 percent and 76 percent of microfirms in those countries are not registered and respectively 76 percent and 94 percent do not pay taxes.

Figure 5.4: Incidence of Microfirm Informality under Different Definitions



Source: Cardenas and Rozo (2007) on the basis of DANE’s Microenterprise Surveys (2000-2003) and “123” Survey (2001).

5.16 There is a high probability, above 85 percent, that a firm that is not commercially registered is also informal in the sense of not having expenses with 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 it, however, does not necessarily imply that it will achieve formality in all its other dimensions. For instance, 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

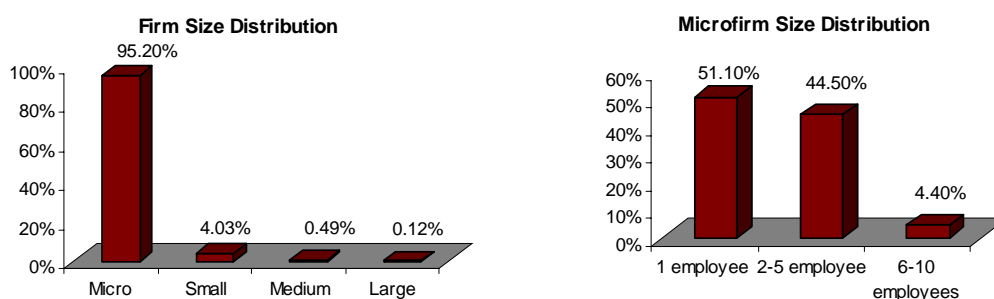
Probability of:	Conditional on:			
	No Commercial Registration	No Taxes	No S.S. Contributions	No Expenses with Licenses, Registration
No Commercial Registration	1	0.63	0.54	0.61
No Taxes	0.85	1	0.72	0.78
No S.S. Contributions	0.87	0.86	1	0.83
No Expenses with Licenses, Registration	0.94	0.9	0.8	1

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

⁷⁶ The last definition is available only for the 2001 “123” survey.

5.17 Regardless of the specific definition that is used, formality rates are lower among smaller firms. For instance, according to the 2000-2003 Microenterprise Surveys and the 2001 “123” survey, respectively 60 percent and 57 percent of owner-only firms lack a commercial registration, 56 percent and 76 percent do not pay taxes, 92 percent and 89 percent do not pay social security contributions and 86 percent (“123” survey) report no expenses with registration or government licenses (Figure 5.4). 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 5.5).

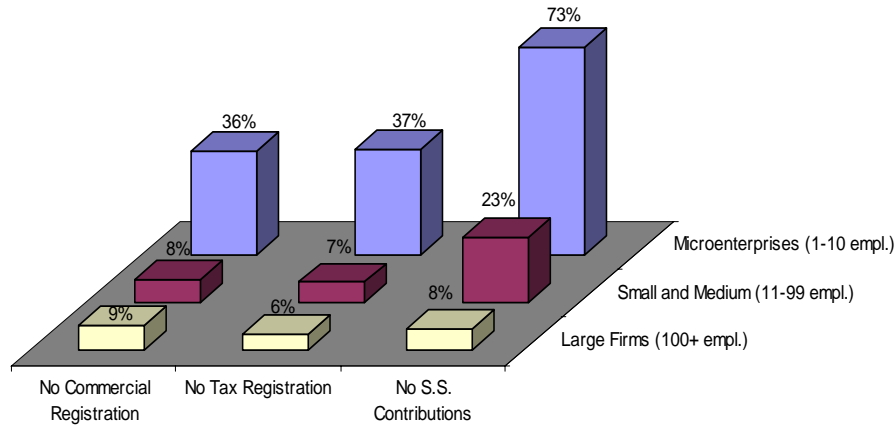
Figure 5.5: Firm Size Distribution in Colombia (2005)



Source: Cardenas and Rozo (2007) on the basis of data from the 2005 Census.

5.18 Whereas 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 5.6 reports informality rates for these two provinces calculated by firm size. As expected, informality is more prevalent among microenterprises, and it is lower among small and medium firms with more than 10 but less than 100 employees, and even lower among large firms with 100 plus workers. Thus, in those ranges of firm size respectively 9 percent and 8 percent lack commercial registration, 7 percent and 6 percent lack registration with the tax authority and 23 percent and 8 percent report not paying social security contributions. In comparison, according to Census data respectively 36 percent, 37 percent and 73 percent of microfirms meet those three definitions of informality in the above provinces – which is generally consistent with estimates from microenterprise surveys.

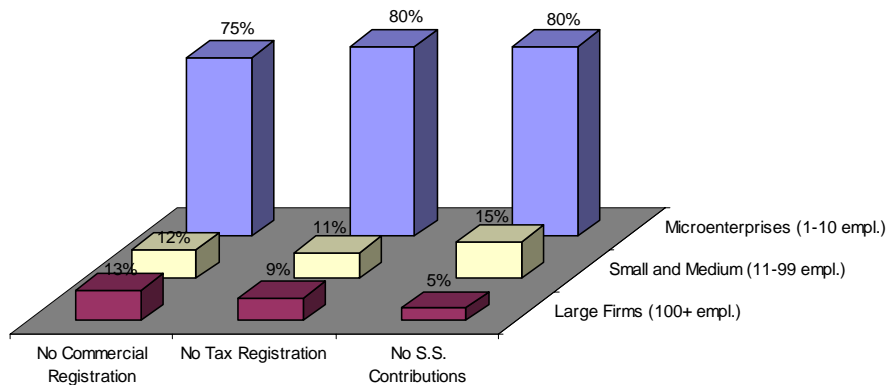
Figure 5.6: Informality Rates by Firm Size, Cali and Yumbo Provinces (2005)



Source: Cardenas and Rozo (2007) on the basis of data from the 2005 Census.

5.19 The above Census estimates imply that a non-negligible fraction of informal employment is found in larger firms and outside the microenterprise sector. Indeed, even though firms with more than 10 employees represent only 5.6 percent of the total number of firms in Cali and Yumbo, they respond for 51 percent of total employment. Not surprisingly, given the non-negligible informality rates reported in Figure 5.6 for firms with more than 10 employees, between 20 percent and 25 percent of informal employment – depending on the informality definition that is used – is found in firms with more than 10 workers (Figure 5.7).

Figure 5.7: Distribution of Informal Employment by Firm Size, Cali and Yumbo Provinces (2005)

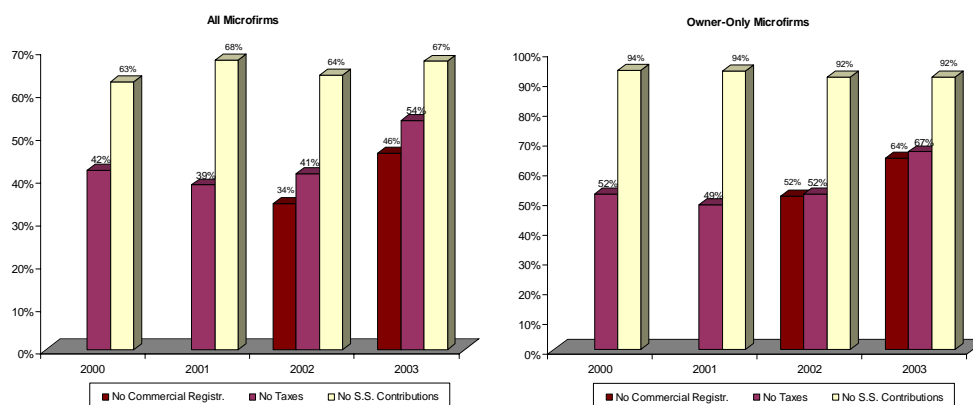


Source: Cardenas and Rozo (2007) on the basis of data from the 2005 Census.

5.20 As for the recent evolution of firm informality in Colombia, the only available data comes from the microenterprise surveys performed by DANE between 2000 and 2003. As shown in Figure 5.8, at least during this period there were not 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 percent and 54 percent – was considerably higher than in previous years – e.g., respectively 34 percent and 41 percent. As seen in Figure 5.8, similar increases are apparent among owner-only firms: based on the above definitions between 64 percent and 67 percent of those firms were informal in 2003, compared to about 52 percent in 2002.

Figure 5.8: Evolution of Microfirm Informality, 2000-2003

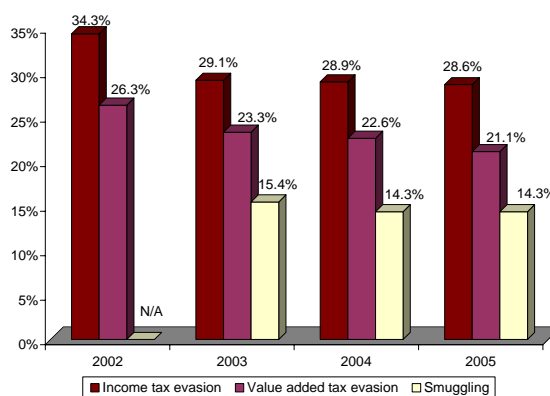


Source: Cardenas and Rozo (2007) on the basis of data from DANE’s microenterprise surveys, 2000-2003.

Evidence on Tax Evasion in Colombia

5.21 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.

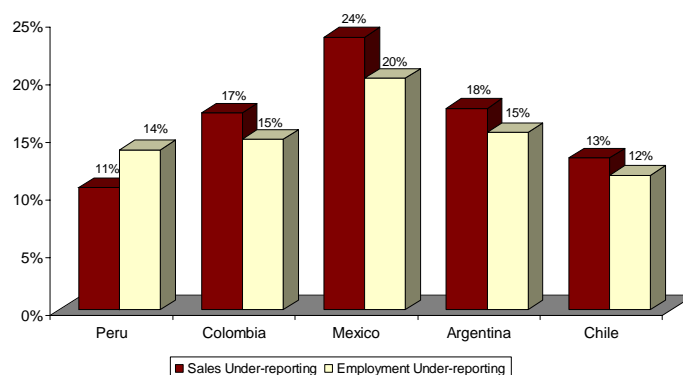
Figure 5.9: Tax Evasion and Smuggling in Colombia, 2002-2005



Source: DIAN, Fiscal Studies Division.

5.22 To some extent, these results have followed DIAN’s increasing emphasis on tax enforcement. For instance, the 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 5.9, 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 percent to 14.3 percent of total imports, the evasion of value added taxes has also been reduced considerably, from 26 percent in 2002 to 21 percent of total potential collections in 2005. Overall, DIAN estimates that in 2005 the evasion of income taxes represented 2.6 percent of GDP, while value added tax evasion amounted to 1.7 percent and contraband to 2.4 percent of GDP.

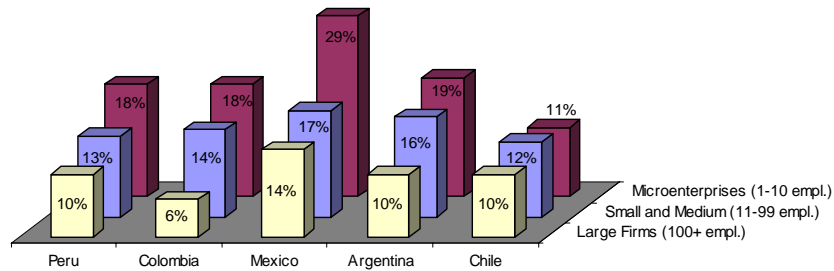
Figure 5.10: Tax and Social Security Evasion as Reported by Firms (2006)



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

5.23 Whereas 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. Thus, as seen in Figure 5.10, Colombian enterprises report that about 17 percent of the sales of typical firms in their lines of business are under-reported for tax purposes. Similarly, firms fail to pay social security contributions for 15 percent of their workers. This data places Colombia near the average of the group of middle and large Latin American countries included in this figure, with higher evasion rates than in Chile and Peru, but below those found in Argentina and Mexico. As expected, the incidence of tax evasion tends to decrease with firm size. This, however, 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 5.11).

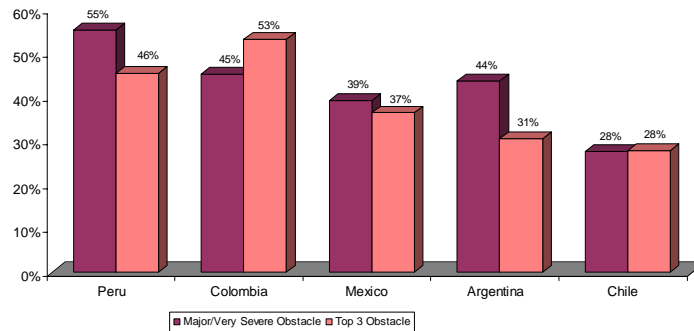
Figure 5.11: Tax Evasion by Firm Size (2006)



Source: authors' calculations using data from World Bank's Enterprise Surveys.

5.24 Somewhat surprisingly, despite the above evidence indicating 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 5.12, 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 5.12: 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

5.25 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 take into account the firms' and entrepreneurs' assets and productivity and the characteristics of the business environment in which they operate. In 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

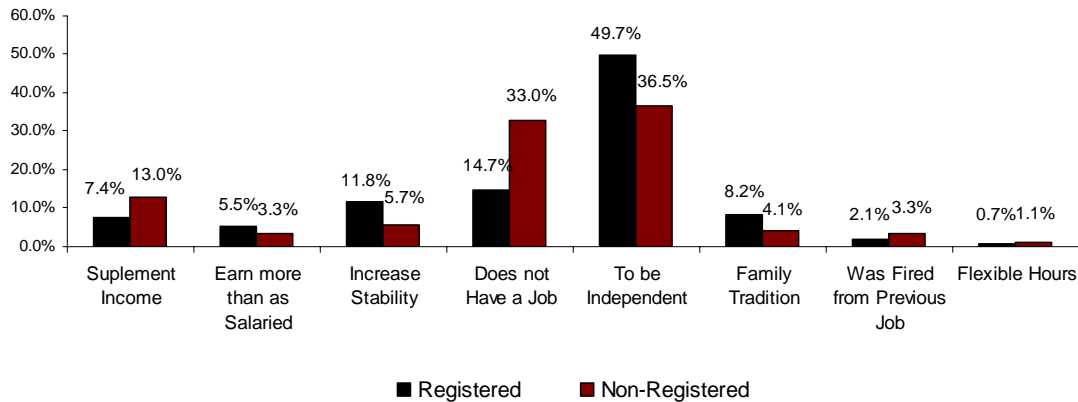
resulting from non-compliance with labor market and other government regulations. As for the main *costs* of informality, they include the risk of being caught and the expected value of the associated fines and other resulting losses. As a result, informal firms have an incentive to remain small in order to avoid being detected by government inspectors, which can also be considered a disadvantage of informality. Others cost include a more limited access to markets – both for inputs, such as credit and for outputs, especially in the context of value added taxation – and government services – e.g., contract enforcement and SME support programs – which may further restrict the ability and incentives of informal firms to expand.

5.26 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 and implicit contracts – with a consequently more limited use of formal contract enforcement mechanisms – and their larger reliance on internal sources of finance as well as on 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.

Evidence from Microenterprise Surveys

5.27 Data from DANE’s “123” survey confirms several of the above predictions regarding the links between firms’ and owners’ characteristics and the firms’ likelihood of operating informally. In particular, Figure 5.13 shows that the motivations of microfirm owners for starting their businesses do play a role in their decision to formalize. Thus, formality rates are higher for entrepreneurs who opted for entering 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 to benefit less from formalization.

Figure 5.13: Motivation for Starting Microfirms by Commercial Registration Status



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

5.28 Formality rates are also associated with the age, gender and education of Colombian microentrepreneurs. In particular, Cardenas and Rozo (2007) find that females are slightly more likely to formalize their businesses – e.g., 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 in the above mentioned 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 suggests 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.

5.29 Cardenas and Rozo (2007) also estimates 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 incorporate more employees. Thus, 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: e.g., by 19 percentage points for one-year-old firms and by 12 percentage points for two-year-old firms.

5.30 After controlling for the above firm and owner characteristics, Cardenas and Rozo (2007) find that, at least in the case of micro-enterprises, the probability of being informal is eight percentage points lower for firms in retail trade than for those in other service sectors and it is about seven percentage points higher for those in manufacturing. Moreover, they find that firms that are not operated from fixed locations are much more likely of being informal. In particular, firms that function 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. Similarly, the probability of being informal is 8 percentage points higher for firms that operated at the owner's home.

5.31 Overall, the findings of Cardenas and Rozo (2007) are consistent with the hypothesis that when deciding about the formality status of their businesses micro-firm owners are to a large extent driven by *exit* choices and not just by *exclusion* factors. In particular, those 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. Moreover, formality is also found to be 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.

5.32 These findings suggest that, not unlike in other Latin American countries, the high levels of microfirm informality found in Colombia are to some extent driven by the presence of low opportunity costs for 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 this context, in order to reduce informality policy makers should focus not only on altering the direct costs and benefits of formality but also on the drivers of formal sector productivity, including measures to improve the investment climate and policies aimed at increasing human capital accumulation.

5.33 A complementary view, however, would be that in addition to the demographic composition of the labor force and the factors that drive formal sector productivity, the levels of microfirm informality could also be driven by policy-induced barriers to the formalization of small businesses. In particular, some specific aspects of Colombia's business environment could affect informality not only by reducing productivity in the formal sector but also by impeding microfirms' access to technologies and markets. If important, these barriers could help keep most microfirms small and unproductive – when not leading them to fail – and could thus perpetuate a vicious circle of low firm growth and high informality. We explore the evidence on this hypothesis in the next section.

The Role of the Business Environment: Aggregate Evidence

5.34 There is now considerable evidence showing that the varying incidence of informality that is found across countries with similar levels of per capita income are significantly linked to the nature of business regulations and to the quality of governance. Loayza (1996), for instance, has shown that at least in the Latin American context

informality is positively associated with levels of taxation and labor market regulations, and negatively correlated to 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.

5.35 In addition, the cross-country evidence suggests that not only the *quantity* but also the *quality* of regulation matter for explaining informality levels, which are significantly affected by measures of governance and institutional quality. In particular, 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 probably 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.'s (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, would be 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

	Informality measures			
	Schneider Shadow Economy index (% of GDP, in logs) [1]	Heritage Foundation Informal Market index [2]	Self Employment (% of total employment) [3]	No Pension (% of labor force) [4]
Law and Order (index from ICRG, range 0-6: higher, better; country average)	-0.1069*** -3.23	-0.1530*** -3.30	-2.3941*** -3.52	-3.4748* -1.88
Business Regulatory Freedom (index from Economic Freedom of the World by The Fraser Institute, range 0-10: higher, less regulated; country average)	-0.1020*** -2.72	-0.4884*** -9.21	-2.1587*** -2.62	-5.8250** -2.16
Average Years of Secondary Schooling (from Barro and Lee (2001); country average)	-0.0858** -1.92	-0.1761*** -3.87	-1.7743** -2.26	-5.1117*** -2.96
Sociodemographic Factors (simple average of share of youth (aged 10-24) population, share of rural population, and share of agriculture in GDP; country average)	0.1459** 2.27	0.3127*** 4.38	3.3082** 2.44	19.1452*** 6.69
Constant	4.5612*** 25.03	6.5817*** 32.20	51.3973*** 11.16	111.2550*** 11.35
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.

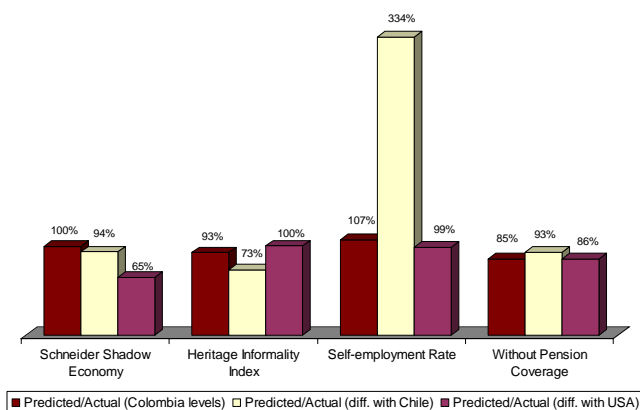
Source: Loayza (2007).

5.36 Econometric estimates of the impact on informality of some of the business environments factors highlighted above can be used to assess, quantitatively, the relative importance of each factor in specific country contexts. Thus 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.

5.37 We perform such 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*, *ILO* and *UN* –

which includes the share of agriculture in GDP, the share of youth in the population and the share of rural population.⁷⁷

Figure 5.14: Differences between Predicted and Actual Informality



Source: authors' calculations on the basis of estimates by Loayza (2007).

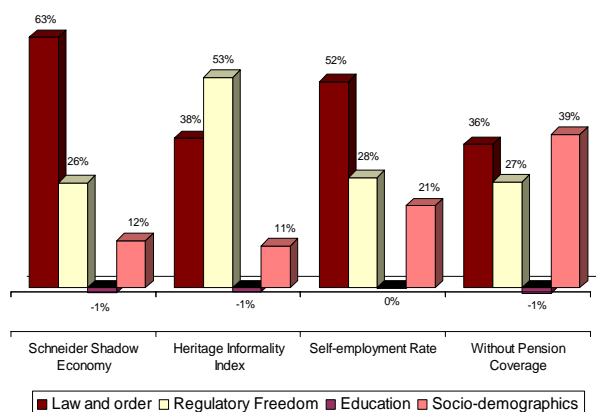
5.38 The dependent variables are the four informality measures presented in Figures 5.1 to 5.3: Schneider's (2007) estimate of the shadow economy as a share of GDP, the Heritage Foundation informal market index, the rate of self employment compiled by the ILO and the share of the workforce that lacks 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.

5.39 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

⁷⁷ 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.

for the self-employment rate – it predicts respectively 93 percent and 100 percent of the actual values of the Heritage Foundation and Schneider indexes. These ratios are reported in Figure 5.14, 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 at least two thirds of the observed differences – on average 87 percent after excluding the self-employment comparison with Chile.⁷⁸

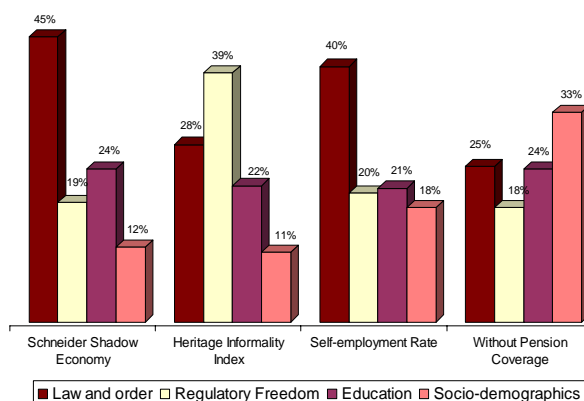
Figure 5.15: Explanation of Differences between Predicted Informality in Colombia and Chile



Source: authors' calculations on the basis of estimates by Loayza (2007).

⁷⁸ 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.

Figure 5.16: Explanation of Differences between Predicted Informality in Colombia and the U.S.



Source: authors' calculations on the basis of estimates by Loayza (2007).

5.40 The relative importance of the four main explanatory variables used in Loayza's (2007) model are illustrated in Figures 5.15 and 5.16. 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 – specifically the Fraser Foundation's index of business regulatory freedom – are the most important factors in explaining the differences in predicted informality rates between Colombia and respectively Chile and the U.S.. In particular, governance and regulations explain between 80 percent 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. Moreover, those two variables explain respectively 63 percent and 43 percent of the differences with Chile and the U.S. in the share of the workforce that lacks pension coverage.

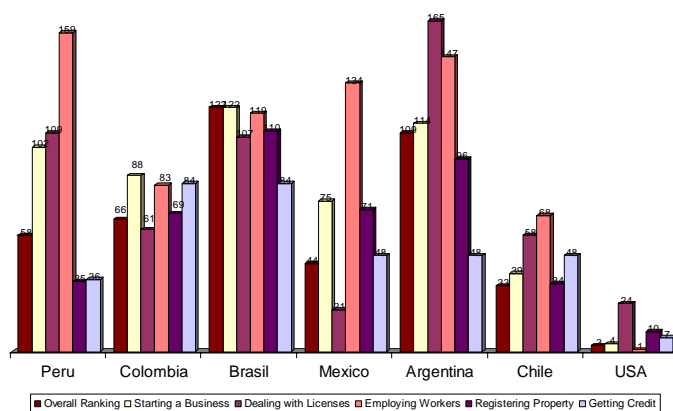
5.41 As for the other two main explanatory variables used in the estimation, the level of education of the labor force plays virtually no role in the comparisons with Chile but it explains almost one fourth of the differences in informality between Colombia and the U.S. Finally, socio-demographics explain about 10 percent of the differences in the Schneider and Heritage Foundation indexes, both with respect to 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, namely the prevalence of law and order, together with reducing excessive regulatory burdens on businesses could go a long way in reducing informality in Colombia.

Evidence from Doing Business

5.42 A complementary approach to assessing the challenges faced by Colombia in improving its business environment consists in evaluating the areas in which the country exhibits relatively high costs of doing business in an international perspective. In this respect, the World Bank's *Doing in Business in 2008* publication ranks Colombia 66th in a sample of 178 countries (Figure 5.17). 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 this 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 businesses, hiring workers, paying taxes, dealing with licenses, enforcing contracts and getting credit. As for others, such as the degree of investor protection and the cost of trading across borders, they may affect informality indirectly through their impact on formal sector productivity.

5.43 With regard to the *Doing Business* indicators on the procedures for starting a business, dealing with licenses, employing workers, registering property and getting credit, Colombia's performance is not significantly different than for the general Ease of Doing Business index. Thus, the country also appears to be “in the middle of the pack” of the group of medium and large Latin American countries (Figure 5.17). 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 5.18). 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.

Figure 5.17: Doing Business Indicators, Overall Ranking and Selected Indicators

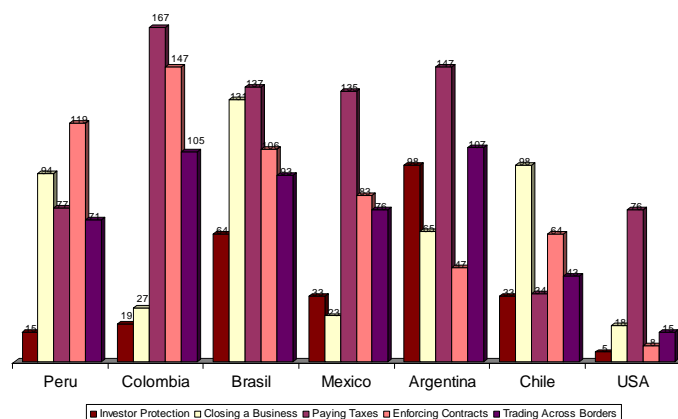


Source: Doing Business in 2008.

5.44 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 5.18). 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.

Figure 5.18: Rankings for Additional Doing Business Indicators



Source: Doing Business in 2008.

5.45 Colombia also faces considerable challenges with regard to the cost, time and number of procedures required for enforcing contracts, for which it ranks 147th in the world. In particular, in order to resolve a typical commercial dispute, businesses need to perform 34 procedures over a period of 1346 days and with 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 is still relatively time consuming and expensive in Colombia. Thus, 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 – at least 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 \$1,745 to \$1,440 – they are still more than thrice those found in China and Singapore.

Firm Level Evidence

5.46 Additional evidence on the relevance of the business environment for explaining levels of firm informality in Colombia – namely the rates of tax and social security evasion – can be derived from the analysis of firm level data collected through the World Bank’s Enterprise Surveys. In particular, as illustrated in Table 5.3, the incidence of corruption is positively and significantly related to firm informality. In particular, companies that report that bribing of government officials to “get things done” is a common practice in their line of business exhibit rates of revenue and worker underreporting that are 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. Moreover, a complementary explanation is that firms that view the government as corrupt may also place a lower value on the public goods that it provides, and thus have lower incentives for contributing to its financing.

5.47 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 another six 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 which sell mainly to large firms, with more than 100 employees, exhibit rates of underreporting that are between three and four percentage points lower. This suggest 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

	Colombia		Pooled Sample (7 LAC countries)	
	Unreported Sales	Unreported Employment	Unreported Sales	Unreported Employment
	(5)	(6)	(15)	(16)
Corruption Dummy	3.119 (0.184)	4.784 (0.043)**	4.832 (0.000)***	4.835 (0.000)***
Labor regulations Dummy	6.771 (0.005)***	7.607 (0.002)***	1.937 (0.062)*	3.196 (0.002)***
Tax Inspections (avg. #)	-0.209 (0.196)	-0.094 (0.564)	0.050 (0.237)	0.022 (0.608)
Contract Enforc. (avg. %)	-0.019 (0.890)	0.128 (0.356)	-0.119 (0.009)***	-0.072 (0.122)
Large Clients Dummy	-3.927 (0.053)*	-3.719 (0.069)*	-2.814 (0.004)***	-2.709 (0.006)***
Bank Loans (% of firms)	1.679 (0.916)	5.503 (0.732)	-0.594 (0.904)	-4.351 (0.383)
Observations	833	833	4278	4278
Correl. Residuals (p.val. Indep. test)	0.64 (0.00)		0.58 (0.00)	

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

5.48 Complementing the above aggregate and firm level evidence on the potential impact that reductions in the time and cost required for starting a business can have on informality, 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 the Mexican *SARE* program that allows for firm registration procedures to be completed within three days. Kaplan et al. have find that *SARE* 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 *SARE* increased the fraction of registered businesses – the *stock* – by 5.6 percent.

5.49 In the case of Colombia, Cardenas and Rozo (2007) have evaluated the impact of the CAEs – which stands for *Centros de Atencion Empresarial* – program implemented by the Chambers of Commerce of six Colombian cities between 2000 and 2004. This program greatly simplified the procedures (e.g., from 45 to 2 requisites and documents) and reduced the time (from 55 to less 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.

5.50 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 in the corresponding cities, after controlling for city and country levels 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 aimed at reducing the transaction costs associated with operating legitimate businesses, including by taking advantage of internet-based technologies and one-stop-shops, can be effective tools to tilt the incentives of at least a fraction of small firms towards formalization.

Consequences of Informality

5.51 Whereas 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 effects of informality from other variables.

5.52 From a theoretical point of view, there are several potential mechanisms through which informality can have negative effects on firm productivity, curtailing the prospects of economic growth. 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 the presence of very small firms with limited access to medium- and long-term finance or to the rapidly expanding global market, and who therefore cannot achieve their full potential in terms of productivity or competitiveness. As described above, roughly 46 percent of all firms in Colombia are informal MSEs, in the sense of not possessing commercial registration, with limited ability to grow and become more productive due to the need to remain small to avoid enforcement, high collateral and interest costs on longer-term financing necessary for investment in better technology and equipment, and a limited pool of customers.

5.53 As noted in Perry et al. (2007) there is one important caveat to consider, namely that the size restriction may be less important in the services sector, where there may be less room for exploiting economies of scale (Lewis 2004) and where there is a massive participation of informal labor. As a result of their small scale, informal firms are also less motivated to use technological innovation, one of the key drivers of productivity. Low levels of innovation and technology absorption may also emerge as consequence of the absence of focus on longer term relationship with stakeholders that characterize the informal sector. 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.

5.54 Another potential transmission mechanism relating informality and productivity is through tax erosion. High levels of informality erode the tax base and therefore 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).

5.55 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. As well, informality promotes corruption, since informal firms need to pay off officials to avoid fines and business closure, or to access public services intended only for formal firms.

Evidence for Colombian Microfirms

5.56 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 as mentioned above focuses on micro firms and allows for comparing 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. This last survey permits us to investigate productivity determinants.⁷⁹ We also use the results of a qualitative survey conducted with 100 formal firms in Bogota and Medellin to support the analysis.

⁷⁹ Details about the methodology of these surveys can be found in the annex.

Table 5.4: Access to Credit among Formal and Informal Microfirms

	Formal	Informal	Difference (Formal - Informal)
1) Have you requested loans?	21.1%	16.5%	-4,55%***
2) If not, what is the main reason?			
Additional capital not necessary	38.1%	42.2%	4,06%***
Does not know how to proceed with request	3.7%	5.9%	2,21%**
Too many procedures	13.1%	15.3%	2,24%*
High rates	15.5%	17.1%	3,16%**
Lack of friends"	5.3%	5.5%	0.2%
Short maturing	0.6%	1.5%	0.7%
3) Who have you requested the credit?			
Banks	45.0%	30.7%	-14,22%***
Cooperatives	17.4%	21.3%	3.9%
Lenders	28.1%	34.4%	6,31%**
Relatives and friends	15.0%	27.1%	12,04%***
4) Credit disbursement (given request)	89.2%	68.5%	-20,69%**

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

5.57 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: in a first phase, the probability to be 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

	Formal	Informal	Difference (Formal - Informal)
1) Has received training over last 12 months	15.3%	8.1%	-7.1%***
2) Has received training in...			
Entrepreneurship	40.8%	25.3%	-15,5%***
Management	36.5%	26.4%	-10.1%**
Technical Issues	49.8%	51.3%	1.5%
Access to Technology	18.8%	19.7%	0.9%
Sales and marketing	45.5%	35.7%	-9.8%
3) Needs training in...			
Sales	43.5%	36.6%	-6.8%***
Production	18.6%	20.5%	1.9%
Management	39.8%	29.5%	-10.3%***
Accounting	3548.0%	2827.0%	-7.2%***
New technologies	26.7%	26.2%	-0.4%

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

5.58 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.⁸⁰

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

Area	Problem	Formal	Informal	Difference (Formal - Informal)
Machinery and equipment	Machinery and equipment	7.2%	8.7%	1.5%
	High costs	72.0%	70.8%	-1.2%
	Deficient technical support	19.4%	27.7%	8.3%**
	Lack of information	24.3%	13.8%	-1.0%
Product commercialization	Commercialization	44.5%	40.1%	-4.4%**
	Low customer turnout	64.8%	70.7%	5.8%***
	Non-Payments	29.5%	29.0%	-0.5%
	Competition	66.7%	61.3%	-5.3%**
Control and regulation	Cancellations	6.3%	6.9%	0.7%
	Legal demands	30.3%	38.0%	7.7%
	Excessive control	73.4%	62.8%	6.5%**
	Permanent expulsion	2.2%	9.1%	6.9%***

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

5.59 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 received less training support than formal ones. These results are obtained for firms that declared having requested these services. Moreover, one can see that informal firms demand less training and support than their formal counterparts. Although this could result from the fact that informal firms anticipate that they will not receive this service from the state for being informal, one cannot rule out the lack of sufficient information about the benefits associated with training and managerial support.

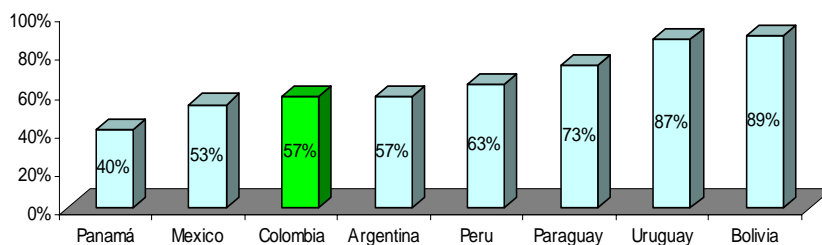
5.60 Table 5.6 summarizes the main findings related to differences between formal and informal firms with regard to issues related to machinery and equipment, sales and government controls. It gives an overall view of the pros and cons of voluntarily choosing to be an informal establishment vis-à-vis a formal one. Results are pretty straightforward: while there is one significant advantage of being informal—being able to produce at lower costs—informality generates more costs than advantages in Colombia, as it limits access to credit, training, capital goods and is associated with more government controls. Again, information can play an important role here, as it is possible that informal firms are not aware of the benefits of formalization

⁸⁰ The statistical significance was reached by using the bootstrapping method, which is valid for Kernel pairing, linear local, and inverse probability methods.

Evidence from Enterprise Surveys

5.61 In order to assess the perception of formal firms with regard to the competition generated by informal firms, we focus next in two questions included in the *Enterprise Survey* conducted by the World Bank in several Latin American countries in 2006. The questions are the following: (i) do firms compete with informal establishments; and (ii) does this imply in an obstacle to growth of its activities⁸¹.

Figure 5.19: Percentage of enterprises that compete with informal firms



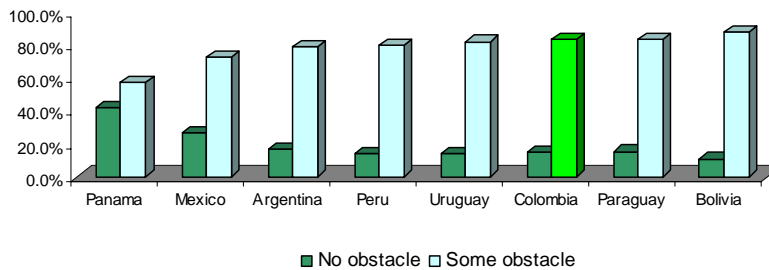
Source: Cardenas and Roza (2007)

5.62 Responses to both questions in Colombia compared to other 7 Latin American countries⁸² are presented in Figure 5.20. 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, 25.9 percent, is not only significant but also higher than the average for Latin America (19.8 percent, see Figure 5.21).

⁸¹ The survey does not provide respondents with a definition of informality; responses reflect thus firms' perceptions on what informality is.

⁸² Argentina, Bolivia, Colombia, Perú, Panamá, México, Uruguay and Paraguay

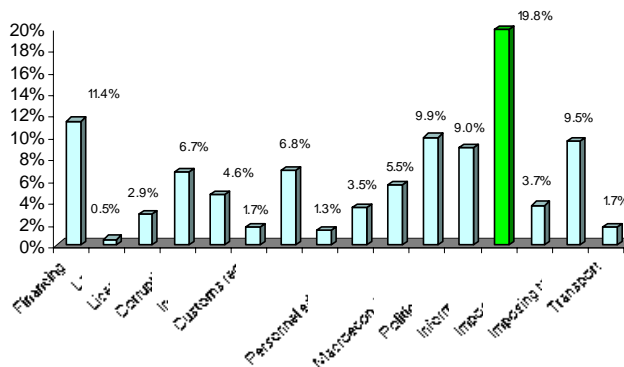
Figure 5.20: Perception of competition with informal firms



Source: Cardenas and Rozo (2007)

5.63 The enterprise survey data allows 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 dependent variable a dummy that is equal to 1 if the firm sees competition with the informal sector as a severe obstacle and equals 0 if it is perceived only as a minor obstacle or is not seen as an obstacle. Independent variables include legal status and size of the firm, how old the firm is and experience of the owner.

Figure 5.21: Obstacles faced by firms in Latin America



Source: Cardenas and Rozo (2007)

5.64 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 less experience of the owner. These results are robust to changes in the definition of the variables.⁸³ When sector is added as independent variable, results show that food, garment, textiles and retail concentrate firms with higher probability of facing competition from the informal sector.

⁸³ See Fedesarrollo (2007), page 20.

5.65 In sum, the evidence suggests that in Colombia formal businesses are strongly affected by the existence of a large informal sector. Younger and smaller firms, with less experience and operating in sectors such as food, garment, textiles and retails are the ones that seem to be more affected. This conclusion is supported by the 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.

Table 5.7: Investment climate elasticities and semi-elasticities with respect to productivity

Blocks of IC variables	Two steps estimation				Single step estimation		
	Explanatory ICA variables	Solow residual		Cobb-Douglas		Translog	
		Restricted	Unrestricted	Restricted	Unrestr.	Restricted	Unrestr.
Infrastructure	Days to clear customs to import (a)	-0.356***	-0.363***	-0.441***	-0.422***	-0.411***	-0.448***
	Losses due to power outages (b)	-0.013	-0.012	-0.023***	-0.023***	-0.015*	-0.013*
	Average dur. of power outages (b)	-0.151*	-0.151*	-0.114	-0.114	-0.078	-0.054
	Wait for electricity supply (a)	-0.366***	-0.365***	-0.407***	-0.332***	-0.396***	-0.332***
	Water supply, public sources (b)	0.004***	0.004***	0.004***	0.004***	0.004***	0.004***
	Shipment losses, import (a)	-0.039	-0.034	-0.080*	-0.085*	-0.083*	-0.094*
Governance: informality, corruption and crime	Workforce reported to taxes (a)	0.012*	0.012*	0.012**	0.01	0.008	0.003
	Dummy for conflicts in courts	0.183**	0.183**	0.242***	0.241***	0.221***	0.222***
	Security cost (a)	0.172***	0.168***	0.210***	0.226***	0.196***	0.243***
	Crime losses (a)	-0.068***	-0.065***	-0.069***	-0.069***	-0.056***	-0.059***
	Payments to obtain a contract with the government (a)	-0.072***	-0.070***	-0.052***	-0.057***	-0.053***	-0.077***
	Payms. to speed up bureaucracy (b)	-0.009	-0.009	-0.009*	-0.011**	-0.008*	-0.008**
Finance and corporate governance	Sales paid after delivery	-0.003**	-0.003**	-0.002**	-0.002*	-0.002*	-0.002*
	Working capital: family/friends	-0.003	-0.003	-0.004*	-0.004*	-0.004*	-0.004**
	Checking or saving account	0.231	0.22	0.470***	0.413**	0.481***	0.372**
Quality, innovation and labor skills	Dummy for quality certification (a)	0.401	0.487	0.877**	0.598	0.700*	0.412
	Outsourcing (a)	0.007	0.007	0.007	0.01	0.01	0.019*
	Staff – university education (b)	0.719*	0.708*	0.682**	0.596*	0.534*	0.346
Other control variables	Dummy for public capital	-0.24	-0.254*	-0.237	-0.469**	-0.198	-0.322
	Dummy for FDI	0.382	0.382	0.449*	0.552**	0.315*	0.118
	Dummy more 5 competitors	-0.027	-0.03	-0.091	-0.103*	-0.088	-0.100*
	Observations	570	570	570	570	570	570
	R-squared	0.17	0.17	0.82	0.83	0.84	0.86

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

5.66 Policy measures aimed at increasing formality have the potential for raising 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 the

goods and services that can be efficiently produced with labor-intensive technologies and for which economies of scale are not significant. Another caveat to the above argument is that, as shown by Almeida and Carneiro (2005) for the case of labor regulations, informality may allow firms a larger flexibility in their employment and production decisions, which, in turn, could lead them to operate more efficiently.

5.67 A separate concern, however, is that informality could allow low productivity firms to stay in business by means of 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 between 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).⁸⁴

5.68 Whereas in theory it’s not clear which effect dominates, empirical evidence for Colombia suggests that informality has significant negative effects on firm productivity. Indeed, as shown in World Bank (2007) and reported in Table 5.7, 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 for speeding up bureaucratic procedures are found to 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, and quality, innovation and skills. Moreover, the estimation was performed holding constant basic firm characteristics, including location, industry affiliation, firm size, firm age, and other factors. Besides the above mentioned effects of informal activities, 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.

⁸⁴ See also Elstrodt, Lenero, and Urdapilleta (2002), Capp, Elstrodt, and Jones (2005), Kenyon and Kapaz (2005), and Palmade (2005).

Conclusions and Implications for Policy

5.69 In this chapter we turned our attention to some characteristics of informality among firms in Colombia. Using several data bases, 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 the productivity of many firms, from causal effects that operate in the opposite direction.

5.70 As in the case of 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 transitory stage before their entrance into formal markets. Moreover, informal firms do generate minimum levels of income to a significant number of workers.

5.71 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 the possible negative effects that informality may have on their ability to widen their markets and hire high productivity workers. Firms may thus opportunistically choose to evade a fraction of their taxes and social security contributions. This opportunistic behavior, however, 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.

5.72 In this context, policy interventions aimed at reducing evasion – or informality among formal firms – are likely to require both “sticks” and “carrots”. By increasing the costs of informality (e. g. increasing enforcement of legislation) 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 firms that are “deep into informality” may require more profound changes on both legislation and enforcement mechanisms. In this sense, 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. 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. On the other hand, the means by which informality is reduced is likely to determine the corresponding impact on productivity and growth – e.g., increasing enforcement without

addressing the underlying causes of informality could lead to unemployment and reduced growth.

5.73 Based on the analysis performed of both determinants and consequences of informality and taking into account the causality caveats previously mentioned, a certain number of policy recommendations can be selected. 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. We recognize, however, that these should have an effect only on those firms closer to the margin. More drastic reductions require longer term agenda of human capital, governance and investment climate reforms.

5.74 A first, simple recommendation is to provide more information on government programs available to formal firms (credit, TA, training). By and large, the evidence reviewed here tends to suggest that formalization potentially brings benefits to firms. While there is one significant advantage of being informal—being able to produce at lower costs—informality generates more costs than advantages in Colombia, as it limits access to credit, training, capital goods, etc. Information can play an important role here, as it is possible that informal firms are not aware of the benefits of formalization.

5.75 One of the alternatives to reduce costs of formalization is to simplify registration. As shown in this chapter, Cardenas and Rozo (2007) found that the implementation of the CAEs led to an average increase of 5.2 percent in the number of firms registered in the corresponding cities, after controlling for city and country levels 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 aimed at reducing the transaction costs associated with operating legitimate businesses, including by taking advantage of internet-based technologies and one-stop-shops, can be effective tools to tilt the incentives of at least a fraction of small firms towards formalization.

5.76 There are several possibilities of action here. First, the government should consider expanding the CAEs initiative to all cities in the country, as they seem to be a cost-effective way of inducing formalization. Moreover, the government should also consider implementing a system of gradual payments of registration costs, as the latter often act as barriers to small and micro firms' registration.

5.77 A related topic is the cost and complexity of closing a business. This can also act as an impediment to firm's registration, as the cost and time to close a business are perceived as excessively high. The Colombian Congress has approved a new legislation in 2005 that addresses some of the main obstacles to liquidate firms, but the enabling legislation has not been approved yet.

5.78 Registration is one of the potential obstacles to formalization but not necessarily the most important one. Other obstacles lay in the taxation structure and level, especially in what relates to payroll taxation. Adopting a simplified taxation system for small and micro enterprises can address this obstacle exactly for the segment of firms where incidence of informality is greater. In spite of some limitations, the experience elsewhere in Latin America with this kind of flat tax reform seems to have been a successful one, especially in reducing informality. Given the political economy difficulties to adopt broad tax reforms this could be a potential second best solution.

5.79 Related to this, the finding by Cardenas and Rozo (2007) that the incidence of firm informality is highest when the latter is defined on the basis of the absence of social security payments – compared to for instance, the lack of mercantile registration or tax payments. In other words, companies are more reluctant to formalize their workers than to comply with other government regulations. *Focus groups* performed in Medellín and Bogotá suggest that one explanation for this phenomenon is that entrepreneurs do not understand why they should be the ones to finance the operating costs of institutions such as SENA, ICBF or the “Cajas de Compensación”. Moreover, they have limited confidence in the quality and value of state-provided services and as a result some of them report preferring to pay the value of social security contributions directly to their employees who may thus have the chance to choose to buy privately provided services if they wish. In order to alter the firms’ incentives in this regard, the Government could consider alternative financing mechanisms for the above mentioned institutions while continuing to invest in improving the quality of state provided services.

5.80 In the spirit of encouraging formalization through the increase of the benefits of formalization, another measure focused on smaller firms is to promote linkages between MSMEs and large firms. All these initiatives, primarily focused on SMEs, should encompass sub national governments as well, in order to maximize their impact. Laws 590 of 2000 and 905 of 2004 establish a series of priorities to these firms, including the authorization for the National Guarantee Fund (*Fondo Nacional de Garantías*) to provide credit guarantees to these firms (up to 70 percent), establish the creation of special credit lines for SMEs and micro firms, and authorize the sub national entities to establish special regimes of taxes for these companies. Providing more information about these programs and helping to clarify the remaining existing ambiguities regarding their application to informal firms could help increase their effectiveness.

5.81 As previously mentioned, in a more long term perspective, both macro and microeconomic policies should be oriented towards improving the general business environment in order to generate the enabling conditions for the sustained growth of productivity. We showed 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 in the country and, as far as informality is concerned, particular attention

should be paid to tax policy and administration, improving contract enforcement and reducing corruption.

6. Policy Implications: Toward Higher Welfare and Productivity

Introduction

6.1 The previous chapters have focused on a number of key issues related to informality in Colombia. Chapter 2 set out a conceptual framework for understanding informality and examined the measurement of informality. Chapters 3 and 4 focused on informal workers, characterizing the informal labor market, and examining the key causes and consequences of informality, including the links to labor market and social protection policies and programs. Chapter 5 focused on informal firms, again with a special emphasis on the causes and consequences of firm informality. While the analysis highlighted that informality in Colombia is both a function of “exclusion” and “exit” from the formal sector, it also highlighted several concerns raised by persistent informality – with respect to people’s welfare, firms’ productivity, and even potentially the country’s economic growth path. The previous chapters – particularly Chapters 4 and 5 – also began to highlight potential lines of policy for addressing the negative consequences of worker and firm informality.

6.2 This chapter focuses on examining the implications for policy in more detail – and specifically how public policies can be used to increase worker welfare and improve firm-level productivity in the face of high (and persistent) levels of informality in Colombia. In pursuing this objective, the chapter focuses primarily on three main areas of policy that have been highlighted in the earlier parts of the report:

- Ensuring all Colombians’ access to social protection via programs that minimize unnecessary incentives for labor informality;
- Increasing productivity via measures to promote firm formalization and development; and
- Enhancing regulatory compliance via stronger government institutional and enforcement capacity

6.3 The chapter focuses on developing lines of policy in these three areas that are consistent with Colombia’s long-term vision of a better functioning labor market, improved economic opportunities for workers and firms, and the progressive formalization of the economy. The policy proposals presented here are thus intended to be consistent with the country’s 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 and to implement – both for technical and political reasons. For this reason, where relevant, the chapter focuses both on the long-

term vision and policy agenda in each of the three areas as well as on specific short-to-medium term actions that can help move Colombia towards its long-term goals.

6.4 The proposals presented here build specifically and substantially on the evidence and analysis presented earlier in the report. At the same time, the options discussed here have been developed in light of several other important influences. First, it builds on the very rich dialogue that has taken place over the last year between World Bank staff, Government of Colombia counterparts, and the Colombian policy researchers as part of the Informality study process. This includes a policy-focused session held in Bogotá in December 2007. Second, the chapter also draws upon the key lessons learned from the recent World Bank flagship report on informality in Latin America and the Caribbean (Perry et al 2007). And, third, the chapter takes into account the lessons and experience of policymakers in other parts of Latin America and in the OECD to help Government of Colombia policymakers to chart an appropriate and effective way forward.

6.5 It is important to highlight that, consistent with the collaborative process that has been undertaken to date, the lines of policy presented in this chapter are intended less as a specific blueprint for Government of Colombia action than as the basis for an expansive dialogue on informality and public policy, one that will enable the counterparts to identify the most appropriate and effective way forward.

Ensuring People's Access to Social Protection

6.6 Colombia's social protection system (like most others in Latin America) is based largely on the "Bismarkian" model in which formal sector workers receive access to relatively generous social security packages in return for contributions made via payroll taxes that are shared by workers and employers. In general, those outside the formal sector have much more limited access to formal risk management instruments or social benefits, especially in the case of old-age income security. This leaves significant segments of the population without protection against key risks. As discussed earlier, only 28.8 percent of the working age population contributes to formal pension programs. A considerably higher share of the labor force – 80.5 percent – has access to health insurance in one form or another, thanks to the *Regimen Subsidiado*. In both the case of pensions and health insurance, however, poor and less educated workers and their families still have less access to the relevant risk management instruments than do non-poor and better educated workers and their families.

6.7 While there are a number of reasons why people work in the informal rather than formal sector, the evidence shows that several aspects of Colombia's social policies – including the minimum wage, high non-wage costs associated with formal employment, and the design of social protection – contribute, even if inadvertently, to the country's high and persistent informality. The effects work both through the routes of exclusion and exit. Colombia's minimum wage is high by regional standards and these high minimum wages

contribute to labor market segmentation, reducing formal sector jobs in the Colombian economy. Colombia's high non-wage costs – high payroll taxes and *parafiscales* – also serve to reduce formal sector employment, both as a segmenting force and also by affecting workers' desire to be formal. Several aspects of the design of social protection itself also serve to reduce the benefits relative to the costs workers perceive regarding formal sector jobs. This includes: (i) the bundling of a multiple benefits in the social security package; (ii) features of the design of contributory health insurance that requires secondary workers in a family to pay for benefits they already receive as dependents; and (iii) long vesting periods for pensions and other features that do not account fully for labor mobility across jobs and sectors. The evidence also suggests that the implementation of parallel contributory and subsidized health regimes creates incentives for greater labor informality, at least at the margin.

6.8 Several of these factors interact and mutually reinforce one another. For example, the fact that significant segments of the population remained outside the formal sector, and without social protection, led the Colombian government to look to alternative, non-contributive programs as a vehicle for expanding coverage, particularly among the poor. This has required additional public resources to finance them, which has led to increases in payroll taxes in the form of “solidarity payments” and this, in turn, has created further disincentives for formal employment, both among workers and employers. The result has been a kind of a vicious circle in the Colombian labor market in which high labor costs have induced high informality, which in turn has increased pressure to finance benefits through higher payroll taxes which, in turn, further increases incentives for informality (Santa Maria et al 2008). Santa Maria et al (2008) argue, as well, that high costs of formality – including payroll tax financed subsidies to non-contributory programs – have meant that formal sector job creation has not been particularly dynamic in periods of growth (like the present), even though formal salaried job destruction appears to be significant during economic downturns.

6.9 Beyond concerns about the design and implementation of current (social) policies, several other factors affect workers' participation in formal social security programs. While public economics provides a clear rationale for public social protection programs – and the data shows that Colombian workers would like better access to risk management instruments – informal workers often lack sufficient functional information about programs and program procedures to make informed choices or, if they have some information, to affiliate to 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.

6.10 So what does all of this imply for efforts to strengthen and extend social protection for workers and their families in Colombia? Given the balance of exclusion and exit in the

informal sector, among the most effective ways to support growth in the formal sector would be to address the high minimum wage and high non-wage costs of formal employment – the key segmenting forces in Colombia’s labor market. Indeed, efforts to constrain real growth of the minimum wage over time along with measures to reduce high non-wage costs would make important contributions to promoting increased formal sector employment and reducing the share of workers in the informal sector. Feedback received by the World Bank team during discussions with government counterparts indicates, however, that addressing these two issues will likely to be very difficult in the near-term. This, unfortunately, limits the degree to which informality can be reduced through labor-related interventions.⁸⁵

6.11 The main instruments available to the government in the short-term are, thus, related to strengthening the design and increasing coverage of social protection in the face of continued high levels of informality. Policy approaches to strengthening social protection can take two routes. One route, as discussed above, would involve strengthening the design of existing social protection programs to raise the benefits and lower the costs workers perceive with respect to affiliating to 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 to social protection focused on redefining the nature of social protection to make social protection services more broadly available to people on the basis of a concept of “citizenship” rather than on the basis of the concept of a “worker” narrowly defined (i.e., on the basis of one’s labor contract), and to do so in an “incentive compatible” way. Again, this would involve attention to the incentives generated by the system as a whole to ensure that programs do not generate incentives for informality.

6.12 These two routes are not mutually exclusive, but are rather complementary. Indeed, these two pathways are developed jointly in the recent World Bank Flagship study on informality in Latin America (Perry et al 2007). Perry et al (2007) map out a *long-term* agenda for social protection based on ensuring protection against key risks to all citizens, regardless of their labor status, in the face of persistent informality. In the case of health, the authors argue that because health shocks that go “uncovered” can impose significant external costs on society, there is a case for providing a package of “minimum essential cover” to *all* citizens, de-linked from the labor contract and financed through general taxation. The 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 more broadly – the authors make the case to provide essential cover, but this time in the form of a poverty-prevention pension targeted toward the poor, and as part of a broader multi-pillar pension system that includes at its core provisions for individual retirement savings. In both the cases of health and pensions,

⁸⁵ As will be discussed later in the report, there are a number of avenues through which labor informality can be addressed through promoting greater firm formality as well as through efforts to increase the governments institutional and enforcement capacity.

the approach focuses on ensuring basic coverage of the population while taking into account the labor market and savings incentives put in place by the structure and design of the relevant programs.

6.13 Because movement toward a system of social protection that provides coverage on the basis of citizenship, rather than on the labor contract, likely constitutes a long-term policy agenda for most countries in Latin America, Perry et al (2007) outline a short-to-medium term policy agenda focused on improving the efficiency and incentive compatibility of existing social protection programs in ways that are consistent with – and move countries toward – the longer term vision. This agenda centers around efforts to improve the benefit-cost ratios of programs to induce more workers to prefer formal sector employment via:

- un-bundling of complex, multi-dimensional benefit packages,
- implementation of measures to improve the efficiency of countries' health and pension systems via design improvement and institutional strengthening at the micro-level, and
- increasing coherence and incentive compatibility of programs through the harmonization of programs rules, eligibility requirements, and benefits levels.

Such measures are designed to prepare the foundation for a more effective and inclusive system of social protection.

6.14 Working to strengthen and expand social protection via these two complementary routes in a phased manner seems a reasonable strategy for Colombia – although to ensure its effectiveness, it would be important to incorporate additional Colombia-specific factors revealed as part of this study. This would include addressing: (i) workers' weak information on programs, benefits, and program procedures, especially among low-education, low-income, informal workers; and (ii) the need for greater flexibility in the design of social protection to account for poor workers' and their families' constraints (e.g., high levels of income variability) and preferences. To ensure the maximum effectiveness of the strategy, any efforts to strengthen and extend social protection ought to be accompanied by concerted efforts, at least over the long-run, to address the main segmenting forces in the Colombian labor market, specifically the high minimum wage and high non-wage costs of employment. It will also be important to address the sustainability of program financing and, particularly, how to break out of the vicious circle associated with payroll tax financing of both contributory and non-contributory benefits described above.

6.15 In the sections that follow, the main lines of a possible strategy for Colombia to strengthen and extend social protection are further elaborated. This begins with more specific discussions of policy approaches in health and old-age income security, then by a

discussion of cross-cutting issues, including the unbundling of Colombia's multi-faceted social security package, and efforts to facilitate greater formal sector employment opportunities among younger workers.

Toward Universal Social Protection in Health

Long-term Vision and Policy Agenda

6.16 The Government of Colombia has a clear commitment to achieving universal coverage in health insurance. This is evidenced by a series of actions taken in the health sector since 1993 to strengthen the functioning of the health sector, including the creation and implementation of the *Regimen Subsidiado* in health. The *Regimen Subsidiado* has made important gains in providing health coverage to poor Colombians; as noted above, 80 percent of working age persons have some form of health coverage or other, and roughly 50 percent of all those covered by health insurance in 2006 were beneficiaries of the *Regimen Subsidiado*. Moreover, a recent impact evaluation of the *Regimen Subsidiado* has shown that the program has been effective in raising healthcare utilization among the poor (Gideon 2007).

6.17 At the same time, as noted above, the mechanisms put in place to universalize health coverage – including mechanisms for financing the subsidized regime – have had some unanticipated consequences that contribute to Colombia's high and persistent levels of informality. Perhaps most importantly, the use of high payroll taxes (combined with *parafiscales*) has been an important segmenting force in the Colombian labor market, causing workers who would like a formal job to be rationed out of the market. Moreover, high non-wage costs have let many firms and workers to opt out of the formal sector, based on an implicit or explicit estimation of the relative benefits and costs of formality vs. informality. And, as discussed in Chapter 4, recent analysis of the incentive effects of the *Regimen Subsidiado*, suggest that by “competing” with the contributory regime among some strata of the labor force, the program itself may have contributed to labor informality. Given the segmentation of the labor market, the informality effect of the subsidized regime appears to have been relatively modest, with the benefits of increased insurance coverage outweighing the effect of the program on informality, at least to date.

6.18 So, how can Colombia achieve universal protection in health in the long-run 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 (whether in terms of labor market incentives or fragmented risk pools), there is a case for moving over the long-term toward provision of a single package of minimum or “essential” direct cover to all Colombians – along the lines proposed in Perry et al (2007) – a package that is de-linked from the labor contract and financed through general taxation. Such a movement would contribute in important ways to greater coherence and incentive compatibility of the health insurance system. It would also contribute, potentially, to the

reduction of Colombia's non-wage costs, by helping to shift away from payroll taxes those benefits and services for which it is not conceptually or operationally essential to link directly to one's employment.⁸⁶

6.19 Based on recent discussions with counterparts, it is understood that the idea of de-linking health (or other) benefits that are now part of the formal social security package from the labor contract is outside the frame of the options that have typically been discussed in Colombia and could possibly be controversial among policymakers. Among other things, it would involve a significant change in the conceptual and operational mechanisms for providing social protection, not only in health, but more generally. This would involve many practical challenges. Nonetheless, there are a number of arguments in favor of de-linking the provision of essential cover in health from the labor contract and, instead, financing such provision through general taxation. General taxation is potentially the most efficient and also the most 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 cover through general tax revenues also has the benefit of ensuring that health risks are effectively pooled across the widest possible risk pool (Box 6.1).

⁸⁶ For further discussion on criteria for determining what should be part of a core payroll tax financed benefit package, see the section on "Unbundling" Colombia's multi-dimensional benefit package, below.

Box 6.1: 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? For example, 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 the latter, 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

Country	VAT Rate
Colombia	16%
Chile	19%
Perú	18%
Brasil	17%
Argentina	21%

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

* In this context, it is not only important to identify potential tax instruments to replace payroll taxes, but to undertake careful estimates of the fiscal costs of providing minimum essential coverage. This exercise would require 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.

Source: Santa Maria et al (2008).

^a 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.

6.20 In the case of providing minimum essential cover in health, 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 like Colombia where subsidized health regimes have been put in place to fill health coverage gaps left by the formal sector, general revenue financing helps 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 2006b).

6.21 It is important to note that some OECD, as well as developing countries, have advanced towards health financing health system based in 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 systems, called the SUS, that integrated different social security schemes and moved to general taxation financing of health insurance (Box 6.2). 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 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 both the strengthening of insurance and provision functions.⁸⁷

⁸⁷ For a further discussion of short-to-medium term measures to increase the efficiency of the health sector, see the section on “Short- to Medium-term Agenda,” below.

Box 6.2: 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.

Source: ECLAC (2006) and Perry et al. (2007).

Short- to Medium-term Agenda

6.22 Working to achieve universal coverage in health in a way that minimizes incentives for informality – through the de-linking of health system financing from the labor contract – would involve a long-term process of strengthening and transforming the system. This would require the development of a transition strategy that would identify the series of concrete steps required to get “from here to there.” Given the important advances

Colombia has made in expanding health insurance coverage over the last decade-and-a-half, it would be important that such a strategy both build on the lessons from these accomplishments and identify and address pending challenges.⁸⁸ In this context, it is possible to identify several short-to-medium term actions that the Government could take – aimed at increasing the efficiency, the incentive compatibility, the fiscal health, and the regulatory clarity of the system – that would both help Colombia to continue to strengthen its health system and move the country towards its long-term vision. This would include:

- Continued efforts to promote greater efficiency in the health system. This could focus on a series of measures that are part of the broader health sector agenda and that build on Colombia’s advances over the last 15 years, including:
 - Implementation of strategic purchasing to increase efficiency among public providers – via both cost reductions and improved quality of services – along with continuation of the process of transforming the effectiveness of public health entities via the use of more flexible enterprise models;
 - Analysis of the relative benefits and costs associated with contributory and subsidized health regimes, including the value of per capita insurance (UPC-c and UPC-s)⁸⁹ on one hand, and the cost-effectiveness of benefit plans (POS-c and POS-s)⁹⁰ on the other;
 - Review of the content of the health packages to ensure that they are based on sound insurance principals, with particular emphasis on protection against impoverishing health shocks;
 - Evaluation of the effectiveness of the use of resources from secondary financing sources, such as those derived from gambling, liquor and cigarette taxes; and

⁸⁸ 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.

⁸⁹ The UPC-c and UPC-s – or *Unidad de Pago por Capitalización del Régimen Contributivo* and *Unidad de Pago por Capitalización del Régimen Subsidiado* in Spanish – represent the Health Risk Premiums in the contributory and subsidized regimes, respectively.

⁹⁰ The POS-c and POS-s – or *Plan Obligatorio de Salud del Régimen Contributivo* and *Plan Obligatorio de Salud del Régimen Subsidiado* in Spanish – represent the Health Packages for the contributory and subsidized regimes, respectively.

- Strengthening of the Government's capacity to reduce evasion of health payments through continued work in strengthening information technologies and through greater integration of administrative records with the System for Social Protection (e.g., PILA, RUAF)⁹¹ and other data sources (e.g., DIAN databases).

Indeed, a recent study on health systems in Latin America (Baeza and Packard 2006) suggests that measures, such as the above, that increase the efficiency of the health system will also go far in assuring the fiscal sustainability necessary to begin a transition toward an effective, integrated systems of effective risk pooling to the entire population, while sustaining the gains associated with recent health sector reforms.

- Rigorous assessment of the impacts expected from recent changes in Colombia's health financing structure that focus on achieving universal coverage through subsidized schemes. This would include analysis of recent increases in health insurance contribution rates under the contributory regime as well as of the creation of a *partially subsidized* health insurance scheme.⁹² Among other things, it would be important to assess the likely effects of these measures on incentives for formal versus informal employment, as well as of the availability and adequacy of provisions for workers to retain coverage if they move from one sector or job-type to another.

6.23 In the longer-term, transforming health system financing and extending risk pooling to the entire Colombian population would benefit from discussion about moving toward a single minimum essential health plan for all citizens. Current differences in health benefit plans not only affect workers' incentives to be formal versus informal, but also the size of the risk pools and the effectiveness of health risk protection. To assure both effective health protection and fiscal sustainability, it would be important to work both toward defining a single, unified benefit package, based on sound insurance principles, and assessing the expected costs of universal coverage under the package. Design and implementation of a unified health plan would not only eliminate concerns about adverse labor market incentives or lack of easy portability across jobs and sectors, but would facilitate clear regulation and control mechanisms.

6.24 Finally, given Colombia's long-term commitment to achieving universal health protection that minimizes incentives for informality, it would be important to begin thinking and working on strengthening the statutory legal framework regulating the health sector. This is important because the entitlements and the institutional arrangements that

⁹¹ PILA stands for *Planilla Integrada de Liquidación de Aportes*; RUAF stands for *Registro Único de Afiliados al Sistema Integral de Seguridad Social*.

⁹² 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).

govern the sector need to be clear to all actors. To date, the lack of such a framework has resulted in some confusion in the sector about what should be covered or not 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

Long-term Vision and Policy Agenda

6.25 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 as a result of Law 100 in 1993, is a "dual" system in that it 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 Solidardidad Pensional*, FSP). The FPS 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.⁹³ 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.⁹⁴

6.26 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 and food transfer programs is also relatively low.⁹⁵ Nonetheless, the current government of Colombia has expressed a commitment to expanding coverage of the gamut of old-age income security programs. In recent months, the government has passed legislation

⁹³ 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.

⁹⁴ 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.

⁹⁵ NOTE: Add coverage figures for PPSAM and Programa Juan Luis Londoño.

loosening the 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 has started work on the design of a program of Periodic Economic Benefits (BEP) that would seek to provide minimum “periodic” income support uncovered seniors who did not qualify for pensions.⁹⁶

6.27 It is important to note that the various pieces of Colombia’s old-age income security system – including the forthcoming BEP program – 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. But the transfer programs operate outside the realm of the contributory system, and little is yet known about how the BEP program will link to either the contributory, subsidized, or non-contributory systems, if at all. It is clear, however, that the government has recent begun a process to improve the integration and coherence of the pension system. At the time of writing this report, for example, the Government was undertaking efforts to develop a unified pension administrator, called *Colpensiones*.

6.28 In this context, how can the Government of expand old-age risk protection to the entire population in the long-run, with an aim toward 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 cover” 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 – i.e., that portion of the population who are no longer able to generate their own incomes – from poverty or extreme poverty.

6.29 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 de-linking access to this poverty-prevention pension from the form of the labor contract, and financing it through general revenues (Packard 2006, Perry et al 2007). At the same time, 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. Indeed, given the high probability of income loss in old age, saving should be the mainstay for earnings replacement during old

⁹⁶ The BEP program will not technically be a pension program. Pensions are required by the constitution to pay no less than 1 minimum wage (MW). However, there are constitutional provisions to allow payment of “periodic economic benefits” that are less than 1 MW. At the time of drafting this report, the exact parameters of the BEP program were not known. Among other things, while the BEP concept is to provide incentives for retirement savings, the extent of the subsidy/incentive is not yet determined.

age (Gill, Packard, and Yermo 2004). Lessons from recent experience make 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.

6.30 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, for example, 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.

6.31 As in the case of health, it is recognized that the policy lines presented here for achieving a more integrated, effective system of old-age income security in the long-run may represent a departure from the way that old-age security has traditionally been thought of in Colombia and, as such, could spark lively debate among the country’s policy makers. As in health, the approach outlined above implies important conceptual and operational changes with respect to providing protection against poverty for the elderly and, thus, implies a number of challenges that would require the development of a well-thought-through and coherent transitional strategy. Moreover, 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. In this regard, the long-term process of strengthening the pension system in Chilean – undertaken in phases between 1981 and the present – may provide some valuable lessons for Colombian policy makers.

6.32 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. Chile was the first in the region to move toward individual savings accounts, and this first Chilean reform influenced a broader round of pension reforms in the Latin America region, including the subsequent development of the individual accounts portion of Colombia’s contributory system. 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,⁹⁷ 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).

6.33 Nonetheless, in terms of preventing poverty among the elderly, important challenges remained. The minimum pension has only been available to individuals who have contributed at least twenty years to individual accounts, and evidence indicates that many workers are unable to achieve the required contribution history before retiring. Indeed, coverage gaps remain. 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.⁹⁸

6.34 To address these concerns, the Government of Chile launched another round of reforms in 2006 that were passed by the Chilean Congress at the end of 2007. The latest Chilean reform focuses on providing old-age security for all, including the poor and those who work outside the formal sector. 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 (Box 6.3). The system also includes measures to promote greater gender equity, as well as incentives to draw more young contributors into the system.

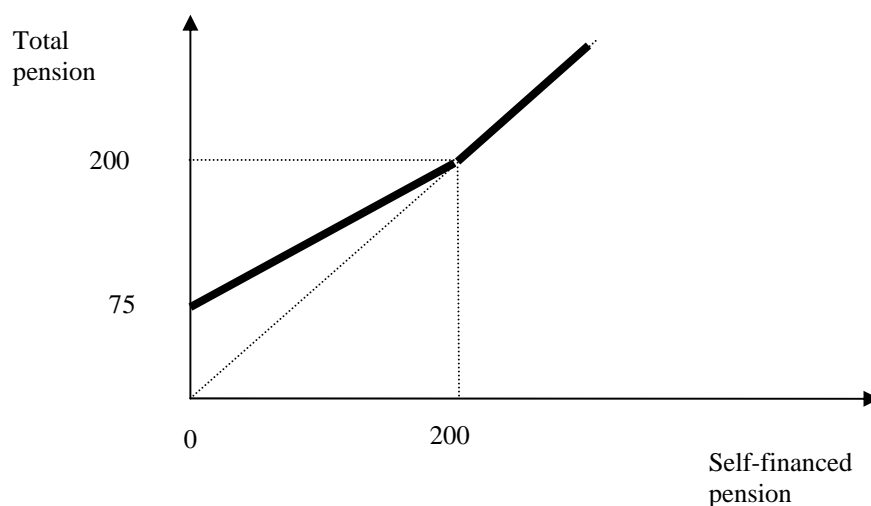
⁹⁷ Among recent World Bank publications that have examined the Chilean experience include World Bank (1996) and (Gill, Packard, and Yermo 2004).

⁹⁸ 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).

Box 6.3: An Integrated Approach to Old-Age Income Security: Chile's New Pension Reform

In December 2007, the Chilean Congress approved a law to reform the country's pension 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. It is an ambitious and comprehensive proposal that builds on the existing system.

The reform will create a new solidarity pillar that 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 would 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.



The 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 proposed reform will extend to same program benefits to the self-employed as to salaried workers, including the solidarity benefits. Over time, participation of self-employed workers 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 seeks to promote reductions in the commissions charged by the pension fund administrators and to increase the return of the investments. Current commissions are considered high and are attributed to the lack of sufficient competition. The Superintendent of Pensions will annually organize auctions of new affiliates based on the level of the commission. The administrator that offers the lowest commission will get the new affiliates. The administrator will be required to keep the commission offered to new affiliates for at least 18 months and extend this rate to all its affiliates. The reform also seeks to raise the return of the funds

by providing more flexibility to choose the composition of the portfolio. Special provisions also aim to promote greater gender equality and to create incentives for savings among younger workers.

The reform will also modify the institutional structure for managing and supervising the new system. Specifically, a new Social Security Institute (*Instituto de Prevision Social*) would be in charge of the system of solidarity pensions while a Superintendent of Pensions (*Superintendencia de Pensiones*) would 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.

The pension system envisioned in under the Chile reform represents a movement away from what is predominantly a single savings pillar to a more balanced multi-pillar – or multi-tier – system. The proposal 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. The proposal also represents a valuable contribution in terms of the policymaking process. For example, there were extensive consultations with stakeholders conducted by the commission appointed by the Government to develop the preliminary set of proposals. In addition, the Government chose to build its reforms on the existing system. The result is a balanced project that improves the existing system without disregarding the achievements made under previous reforms.

Source: Forteza (2007), based on Government of Chile (2006).

Short- to Medium-term Agenda

6.35 The Government of Colombia is currently engaged in efforts to strengthen its pension system – through development of the BEP program, a new, unified pension administrator, *Colpensiones*, and a new agency to strengthen enforcement of pension contributions (UGPP).⁹⁹ The analytical and design process that accompanies these initiatives provides the Government with a unique opportunity to think expansively about the broad parameters of the country’s system of old-age security. At the same time, moving toward universal coverage through the development of a well-integrated and incentive compatible system of old-age security likely represents a long-term policy agenda for Colombia. In this context, there are a number of short-to-medium term actions that the Government could take to help move Colombia 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 Colombia’s old-age income security system. Among key areas for action in the short-to-medium term:

⁹⁹ UGPP is the acronym for the forthcoming *Unidad Administrativa Especial de Gestión Pensional y Contribuciones Parafiscales de la Protección Social*, the Special Administrative Unit for the Management of Social Protection’s Pension and “Parafiscal” Contributions.

- As part of its efforts to design and develop the BEP program, the government should undertake several initiatives, including
 - Examining more closely the factors that have led to low coverage rates not only in the contributory system, but in the subsidized FSP program. Such analysis would be important not only in strengthening the contributory and subsidized programs (e.g., through parametric changes), but will enable the Government to avoid existing design problems into the BEP program; and
 - Analyzing the interactions between the various programs (contributory, subsidized and non-contributory) so as to work toward improved coherence and incentive compatibility among existing programs and between the existing programs and the BEP.

6.36 A key feature of the design of the BEP 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, but 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. In this context, it would be important to:

- Evaluate the potential role of a unified pension administrator – whether *Colpensiones* or another entity – in fostering 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:
 - mechanisms that provide more flexible savings instruments for low-income and/or seasonal these workers, both in terms of the timing and minimum amounts of contributions;¹⁰⁰
 - whether self-employed workers ought be allowed to save or contribute using a base income lower than the minimum wage.¹⁰¹

¹⁰⁰ 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.

- Examine the potential for increasing flexibility of contribution rates across the lifecycle as well 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.¹⁰²
- 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 both basic information on Colombia’s old-age security programs and on the benefits of saving for retirement, but also on the procedures necessary to access the available programs and entitlements.

Raising the Relative Benefits of Social Protection via “Unbundling” of Colombia’s Multi-dimensional Benefit Package and Improving Service Quality

6.37 As discussed in Chapter 4, 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). Some components of the package go directly to the worker and/or their families (e.g., health insurance, pensions, professional risk insurance, and training opportunities), while other components benefits others (e.g., the “solidarity” component of health insurance payments, equivalent to 1.5 percent of the worker’s salary, or family and child welfare services provided via ICBF).

6.38 While some workers may value *all* elements of the package, others may only value *some* of them. For example, while some workers may value highly the recreational services associated with the *Cajas de Compensación Familiar*, others may not value them very much (or at all). Similarly, some workers may appreciate the opportunity to make solidarity contributions, 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, there may be situations in which workers believe they won’t ultimately receive the benefits that they contribute to, as some low-income, informal workers have reported in the case of pensions (CIDER Report 2007).

¹⁰¹ 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.

¹⁰² Such provisions are being considered and/or have been implemented in Mexico and Chile.

6.39 To the extent that workers consider some components of the package as pure taxes, this can adversely affect workers' incentives to become formal. Specifically, 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" of what might be called "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: (i) increase the benefits relative to the costs of the social security package, and (ii) 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".

6.40 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. Moreover, this would 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.

6.41 As a complement to unbundling of the current multi-dimensional social security package, it will be important to ensure that that the quality of remaining parts of any mandatory package are sufficiently high. As with bundling, if workers perceive the quality of a particular service or benefit to be low, then this may create disincentives to participate in the formal sector. Special efforts to ensure quality – or "value for money" – will be particularly important for those components of the package – e.g., pensions – that would remain mandatory. 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.

Facilitating Greater Formal Sector Job Opportunities among Young Workers

6.42 As highlighted earlier in the report, several aspects of Colombia's labor market policies – most notably high minimum wages and high non-wage costs of formal employment – play important segmenting roles in the labor market and, as such, contribute to labor informality, largely via the route of exclusion. Based on the measured incidence of informality, it is likely that those most affected by labor market segmentation are younger, poor workers with relatively low education levels. As noted earlier, among the most effective ways to support growth in the formal sector would be to address directly the factors driving labor market segmentation and exclusion. Indeed, evidence from the OECD suggests that in the context improving labor market opportunities for young workers, there is no real substitute for comprehensive reforms (Box 6.4). However, as noted during discussions with Colombian counterparts, undertaking significant reforms in these areas will likely be difficult in the short-run. As such, it is worth exploring alternative avenues to improving formal labor market opportunities among young workers.

6.43 Given the strong association between education and formal employment, among the most important actions the Government of Colombia can take to improve the labor market opportunities for young workers would be to improve young people's access to quality education at the secondary and tertiary levels. This is clearly an important medium-to-long term policy agenda, not only in the context of informality, but for the success of the Government's broader development agenda. At the same time, for those who have already exited the formal education system, there may be an important role for providing better opportunities for young people to acquire or strengthen technical and “marketable” skills, via certain types of job training, employment services, and improved access to lifelong learning opportunities.

6.44 International evidence on skills training is mixed, but there are some approaches that have seemed to work – or at least show promise – in Latin America. Betcherman, Olivas, and Dar (2004) along with a forthcoming World Bank study on youth-at-risk (Cunningham et al 2008) find, for example, that youth training programs have often had positive impacts on young people's employment prospects in Latin America. Indeed, evidence from several countries in Latin America, including Argentina, Chile, Peru, and Uruguay – show that these “*Jovenes*-type” programs can be beneficial both in terms of employment and earnings. *Jovenes* 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.

Box 6.4: 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 mean 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 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, and its public support and effectiveness are 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.

Sources: World Bank (2007), citing Blanchard (2006); Blanchard and Landier (2001), Cahuc and Cardillo (2006); Kugler (2004); and Kugler, Jimeno and Henanz (2003)

6.45 Colombia has also implements a *Jovenes*-type program. In this regard, Kruger et al (2008) recently evaluated the impact of the Colombian *Jovenes en Acción* program. These authors find that at the time of the evaluation the program was successful in increasing program participants' earnings and employment – although larger effects were found for women than for men. For example, 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. Moreover, the benefits of training were found to be greater when individuals spent more time doing on-the-job training.¹⁰³

6.46 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 providing training alone (Betcherman, Olivás, and Dar 2004). In that context, a promising example appears to be Entra 21, a global initiative working to prepare 19,332 disadvantaged youth for jobs requiring information and communication technology in 18 countries in Latin America. While there are no formal impact evaluation results yet for Entra 21, results monitoring efforts linked to the program suggest that Entra 21 was successful in placing at least 40 percent of targeted youth in employment. 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.¹⁰⁴ A meta-analysis of six Entra 21 projects revealed a higher than expected job placement rate among 2,890 youths.¹⁰⁵ 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. As such, continued monitoring, along with formal impact evaluation of the initiative is warranted to validate what appears to be a promising programmatic approach.

¹⁰³ Concerns have been raised recently in Colombia that the *Jovenes 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.

¹⁰⁴ 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).

¹⁰⁵ See Lasida and Rodríguez, (2006).

6.47 While strengthening the human capital of young workers is clearly important, might there be other, more direct interventions that can help improve young workers' access to formal employment? The experience of partial reforms in Spain and France argue for caution (Box 6.4). So does the literature on active labor market policies, which suggests that while programs to reduce costs of specific workers may sound attractive, they are may not produce not employment benefits, due the deadweight losses, displacement, and employment substitution effects they can generate (Mason et al 2007).¹⁰⁶ One type of program that merits further consideration, however, 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. Nonetheless, 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 of the program – to clarify both the causal links between the program and youth employment and to better understand the cost-effectiveness of the program.

Promoting Firm Formalization and Development

6.48 This document has identified two important elements of firm's informality: (i) 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 (ii) informality among firms has negative consequences in terms of firms' access to markets, in terms of firm productivity and in terms of government fiscal revenues. In this context, policy interventions aimed at reducing firm informality are likely to require both "sticks" and "carrots". By increasing the costs of informality (e. g. increasing enforcement of legislation) 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 firms that are "deep into informality" may require more profound changes on both legislation and enforcement mechanisms. In this sense, 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 should have an effect only on those firms closer to the margin. More drastic reductions require longer-term agenda of human capital, governance and investment climate reforms.

¹⁰⁶ 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.

6.49 In this context, Colombia has moved towards the simplification of firms' formalization process by the implementation of the Entrepreneurship Attention Centers of the Chambers of Commerce (CAE), which group together several institutions to facilitate the process of registration for firms. However, this program only facilitates the process for obtaining the registration certificate (*matrícula mercantil*) and 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

Long-term Vision and Policy Agenda

6.50 The issue is to achieve higher productivity growth in the country. Naturally, these higher growth rates can only be obtained by increasing the productivity of Colombian firms. Firstly, this would require the establishment of a business environment that is friendly to investment and to the development of new businesses. Trust in the government should be strengthened so that firms are willing to contribute if they have a way of doing so. This issue is developed in the next section.

6.51 Secondly, economic policies should favor economic growth so that firms have better chances to survive. Efforts in this direction should, among other things, include the reduction of payroll taxes. As has been stressed throughout the report, non-wage costs are too high in Colombia, and they generate disincentives to firm – and worker – formalization. It is important to mention that, perhaps, this effort should start by shifting the financing of the services provided via the “parafiscales” to general taxation in the way described below.

6.52 Finally, a point that matches very well with the long term goal of shifting payroll taxes to general revenues is related to VAT. In Colombia, it is well known that the VAT is not really a value added tax, but rather a sales tax. This emerges from the fact that many goods are not taxed (especially those that constitute the “basic food basket”), a fact that serves to “cut” the productive chain. If all products were taxed, the incentives to formalization would be immediate and very strong, because every link in the production and sales chain would have strong incentives to obtain an exact accounting of taxes paid by the previous “link”, in order to pay only the tax corresponding to the value-added provided by the current link of the chain. Thus, one important long-term recommendation would be to convert the current VAT into a true value added tax, eliminating to the extent possible exemptions and, then, pursuing equity (or poverty prevention) objectives through tax rebates, as necessary.

Short- to Medium-term Agenda

6.53 The short-to-medium term agenda should be directed toward facilitating the process of firm formalization, given that it is a process that would help firms increase their

productivity in the long-term. Firm productivity will be increased directly via greater access to inputs (e.g., credit, machinery), government programs (e.g., training, information) and other types of benefits (e.g., 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.¹⁰⁷

6.54 In this context, the international experience gives important lessons for the short term agenda. It shows that countries in the region are aware of the fact that firms’ formalization goes beyond the process of obtaining the registration certificate (*matrícula mercantil*). Thus, programs to favor firm formalization need to transcend this step. 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. However, it is necessary to stress that this type of programs must be time-limited to avoid perverse incentives on firms’ growth and that they must be accompanied by policy actions that focus on solving the information problems. In this way, the short-to-medium term agenda should focus on three main components: (i) simplification and facilitation of the process of formalization; (ii) solution to the information problems related to informality; and (iii) selected programs of support for small formal firms.

6.55 *Simplification of the process of formalization.* Although the formalization process should go beyond obtaining the *matrícula mercantil*, the experience of facilitating this process has had important effects in the principal cities of the country. For instance, Cárdenas and Rozo (2007) estimate 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 the investigation. For this reason, this study recommends continuing the development of CAEs and its expansion to other cities of the country, given that the program has proven to be a successful experiment.

6.56 Once a firm obtains its registration certificate, efforts should be directed to simplifying the subsequent steps of completing the process of formalization. One alternative is to offer simplified tax programs to small firms during their first three years of existence. For instance, Colombia could move toward the implementation of tax simplification regimes such as the ones implemented in Brazil or Argentina that have proven to be effective in increasing firms registration (Box 6.5). These programs substitute 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 in the implementation of this type of regimes indicates that such programs have to avoid complexity and ambiguity in order to be effective (Box 6.6).

¹⁰⁷ Analyzing the *Investment Climate Survey* for 2007, Cárdenas and Rozo (2007) find that most commonly reported obstacle to formal firm operations is competition from informal firms. For further discussion, also see Chapter 5 of this report on firm informality.

Box 6.5: 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. The objective of the program is to generate conditions that facilitate the process of formalization during the first years of the development of small firms. 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"). To be eligible for the program, firms must have revenues less than USD \$1,000,001 and should develop their activities in industry, commerce, services or in the primary sector of the economy.

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. The results of the program were positive. Perry et al (2007) finds that the program led to a 46 percent increase in the rate of new firm registrations.

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 USD\$ 24,000 and USD\$ 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 6.6: 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 USD \$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.

6.57 *Solve information problems.* Previous analyses have identified that informal firms do not have enough information about the benefits of formalization. This information deficit slows down the process of setting up new companies, it is a barrier to entrepreneurship, and increases the risk of business failure. 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 a new, integrated program to support prospective entrepreneurs. The program combines financial incentives, technical assistance, and training. This exercise expanded the availability of support for new entrepreneurs and stimulated entrepreneurial activity. For this reason, it is an experience that proves the importance of having access to adequate level of information in the process of formalization and how those firms are reaching higher levels of productivity. Indeed, information and education campaigns should focus on two areas. First, they should emphasize the benefits of formality (e.g., greater access to credit market and training programs, credit guarantees, etc.). In this context, firms should be made aware of the benefits that are provided to small firms through Law 590 of 2000 and Law 509 of 2004. Second, information about the process of formalization should be made more readily available to informal firms. To be most effective, these campaigns should focus on geographical areas (or clusters) where informal activities are concentrated.

6.58 As has been widely documented in the literature, informality is a phenomenon that cannot be fully understood since there is a lack of good quality data available. For this

reason, it would be worthwhile to develop stronger data on firm informality via panel data sets and/or firm censuses in the principal cities of Colombia to enable better identification of areas where informality is concentrated, along with a deeper analysis of the structure and operations of firms, including over the economic cycle. While these types of surveys and censuses have already been implemented in Cali and Bogotá, it would be important to expand such efforts to ensure that they cover all of Colombia's principal cities.

6.59 *Support to young and small formal firms.* 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 between 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. Training activities could cover commercial relations and company networking, among other things. 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 audit the process. This type of program should be first developed and studied as a pilot before its general implementation.

6.60 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, it perpetuates 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 largest hope for raising the standard of living of workers in the economy in the long term. While it is true that micro-firms participating in business associations, credit institutions, and training institutions are more prosperous, 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 and an environment amenable to private investment and a tax regime that encourages formalization.

Strengthening the Government's Institutional and Enforcement Capacity

6.61 Until now the policy recommendations have been directed to increase the benefits of formality and reaching higher levels of productivity. However, a package of policy actions cannot leave aside the enforcement of institutions for reducing informality. This is a key element that affects the costs of informality, generating higher incentives for formalization.

6.62 As Perry et al. (2007) point out every package of policy actions for the effective reduction of informality should have components of both *carrot* and *stick*. Carrots are policies directed to make the process of formalization easier like the ones analyzed above, whereas, sticks are directed to improve the government's enforcement of regulations already existent. This section formulates policy actions that include carrots and sticks, directed to enhance the governmental functions related to this phenomenon.

6.63 For some country contexts, effective reduction of informality requires an integrated program that includes a range of measures in increase direct incentives for formality and reduced incentives (or penalties) for informality. A successful example of such an approach can be seen in the case of Spain. The Spanish Government initiated a simplified tariff regime, based on analysis carried out across a number of sectors, created new laws for temporary employment,¹⁰⁸ and reduced the mandatory contributions to social security for temporary employees. The Government also strengthened audit practices and raised penalties for evading firms. Finally, the Government also developed a communication campaign to inform citizens about recent changes in tax legislation and fiscal norms, and to generate publicity against tax evasion. In doing so, Spain has been successful in dramatically increasing tax collection while reducing informal employment.¹⁰⁹

Long-term Vision and Policy Agenda

6.64 The main objective of the long-term agenda is to strengthen citizens' trust in the government. Efforts should thus be directed to improve the quality of government services and to improve the rule of law.

6.65 The enhancement of the quality of government services would require an evaluation of the effectiveness of each government program affecting firms and workers in any possible way. For instance, the effectiveness of the programs of SENA has to be evaluated so that its strengths can be fortified and its problems can be corrected. In addition, educational programs explaining the importance of taxes for a country should be

¹⁰⁸ For example, it facilitated internships for students, created training programs for unemployed workers, for young professionals, and for persons over 45 years of age.

¹⁰⁹ For more details, see *McKinsey Global Institute*.

created in schools and universities. These programs should be coupled with information campaigns explaining how the money collected with taxes is spent. These initiatives will reinforce trust in governmental actions in the long term.

6.66 Strengthening the rule of law can be achieved through efforts to reduce corruption levels and strengthen the system of justice in the country. Although, Colombia has made important progress in these areas, higher efforts should be made.

Short- to Medium-term Agenda

6.67 In the short term, there is the need to strengthen enforcement mechanisms targeted toward geographic concentrations of informality. Several mechanisms for doing so, including improved information sharing across governmental institutions and improved auditing of large firms that have contracts with the government, are discussed below.

6.68 *Improved identification of known 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.¹¹⁰ 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.

6.69 *Information sharing between governmental institutions.* To be able to generate effective controls on informality, cooperation between governmental entities should be enhanced. In this way, information should be shared among entities that work in related fields. 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. The controls on informal activities are not only directed to punish informal firms but to inform them of the process of formalization.

6.70 *Audit large firms.* Informality in the group of 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 revising the data of governmental contracts and identify firms showing fiscal inconsistencies or whose employees are not affiliated to social security.

¹¹⁰ Cali’s Chamber of Commerce already developed such initiative. It has proven successful in identifying the necessary information to enable implementation.

6.71 *Solve contradictions in governmental regulations.* Analyses developed by Santa María and Rozo (2007) have identified some contradictions in governmental regulations related to support to small firms and informality reduction. To begin, the ambiguities of laws 590 of 2000 and 905 of 2004 related to the type of firms that are eligible to the benefits numerated in such laws. These laws should explicitly indicate that only firms that have their registration form valid (*matrícula mercantil*), receive these benefits. This will draw a line between the benefits received by formal and informal firms impelling in this way incentives for formalization. Another contradiction that should be resolved is the one generated with the recent creation of apprenticeships among SENA students. As is well known, firms contribute with payroll taxes for the financing of training programs through SENA. However, firms complain that in addition to this monthly contribution they are obliged to employ students from SENA and pay him/her a salary even when he/she is not trained in the activities that the firm needs. The recommendation here is not to eliminate the apprenticeship program of SENA, but to strengthen it so that students are sent to firms in which their abilities and training can be helpful for productive activities. Another option could be to impel the hiring of SENA's students with fiscal benefits. The evidence suggests that the benefits arising from this program are higher than the costs. But, as noted above, further analysis is needed into the apprenticeship contract in Colombia in order to improve its effectiveness.

6.72 Non-compliance of article 43 of law 590 of 2000 should be resolved. The article establishes that payroll taxes can be paid gradually for small firms; however, this resolution has only been applied in few cases given that small firms and public employees do not have the relevant information. In addition the recently introduced PILA program that 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 have the possibility to benefit from the program.

6.73 Finally, a solution needs to be identified regarding the high costs of bankruptcy for formal sector firms, given that this generates negative incentives for formalization. Despite the existence of some regulations related to bankruptcy (e.g., law 550 of 1999 and 1116 of 2006), further analysis is needed to determine how best to further reduce firms' costs in this regard.

Conclusion

6.74 This chapter has focused on examining the implications of informality in Colombia in more detail, specifically addressing how public policies can be used to increase worker welfare and improve firm-level productivity in the face of high (and persistent) levels of informality in Colombia. To do so, the chapter has focused on three main areas of policy that were highlighted in the earlier parts of the report:

- Ensuring all Colombians' access to social protection via programs that minimize unnecessary incentives for labor informality;
- Increasing productivity via measures to promote firm formalization and development; and
- Enhancing regulatory compliance via stronger government institutional and enforcement capacity

6.75 The chapter focuses on developing lines of policy in these three areas that are consistent with Colombia's long-term vision of a better functioning labor market, improved economic opportunities for workers and firms, and the progressive formalization of the economy. The policy proposals presented here are thus designed to be consistent with the country's 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 and to implement – both for technical and political reasons. For this reason, the chapter has focused both on the long-term vision and policy agenda in each of the three areas as well as on specific short-to-medium term actions that can help move Colombia towards its long-term goals.

6.76 The lines of policy and specific proposals presented here have built directly on the evidence and analysis presented earlier in the report. At the same time, they have also sought to build on several other important influences, including a recent region-wide study on informality (Perry et al 2007) and concrete policy lessons from elsewhere in Latin America and in the OECD. Perhaps the most importantly, however, the chapter has sought to build on the very rich analytic process and policy dialogue that has undertaken place in partnership with Government counterparts and Colombian policy researchers as part of the larger Informality study process. This included a number of sessions to discuss analytical background papers and findings as well as a more policy-focused session held with the core group of stakeholders in Bogotá in December 2007.

6.77 Consistent with the collaborative process that has been undertaken to date, the lines of policy presented in this chapter have been intended less as a specific blueprint for Government of Colombia action and more as the basis of an expansive dialogue on informality to enable the counterparts to identify the most appropriate and effective ways forward. It is recognized that some of the lines of policy proposed in the chapter – most notably moving toward a system of social protection that is de-linked (at least partially) from the labor contract – are outside of the frame that has been used traditionally for thinking about strengthening and expanding social protection in Colombia. But moving successfully toward universal coverage amidst high and persistent informality will require bold thinking, and would benefit from at least consideration of new ways for 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

- Arango, Carlos and Angela Pachon (2003) “Distributive Effects of Minimum Wages on Household Incomes: Colombia 1997–2002.” Banco de la República, Bogota, Colombia.
- Bernal, Raquel (2007) “The Informal Labor Market in Colombia: Identification and Characterization” *mimeo* (World Bank: Washington, DC).
- Bernal, Raquel (2007). “The informal labor market in Colombia: identification and characterization”. Economics Faculty. University of los Andes.
- Betcherman, Gordon, Martin Godfrey, Susana Puerto, Friederike Rother, and Antoneta Stavreska (2006). “Supporting Young Workers: Results of the Global Inventory of Interventions.” World Bank. Washington, DC. Processed.
- Betcherman, Gordon, Olivas, Karina and Amit, Dar (2004). “Impacts of Active Labor Market Programs: New Evidence from Evaluations with Particular Attention to Developing and Transition Countries.” Washington, DC: World Bank, Social Protection Discussion Paper Series 0402.
- Bosch, Mariano and William Maloney (2007) “Comparative Analysis of Labor Market Dynamics and Informality in Developing Countries” *mimeo* (World Bank: Washington, DC).
- Bruhn, Miriam (2007). “License to Sell: The Effect of Business Registration Reform on Entrepreneurial Activity in Mexico”. MIT Press. Cambridge, Massachusetts.
- Cárdenas, Mauricio and Sandra Rozo (2007) “Informalidad Empresarial en Colombia” *mimeo* (Fedesarrollo: Bogota, Colombia)
- Cárdenas, Mauricio and Rozo, Sandra (2007). “La informalidad empresarial y sus consecuencias: ¿Son los CAEs una solución?” Fedesarrollo. Working Paper N. 38. Bogotá, Colombia.
- Cárdenas, Mauricio, and Mejía, Carolina (2007). “Informalidad en Colombia: Nueva evidencia”. Cuadernos de Fedesarrollo. N. 35. Bogotá, Colombia.
- Cárdenas, Mauricio, and Mercer-Blackman, Valerie (2006). “Análisis del Sistema Tributario Colombiano y su Impacto sobre la Competitividad”. Cuadernos de Fedesarrollo. N. 19. Bogotá, Colombia.
- Centro Nacional de Consultoría (2007). “Informe de grupos Focales” Banco Mundial. Bogotá, Colombia.

- CIDER (2007). “Informal Sector Work in Colombia”. University of los Andes. Bogotá, Colombia.
- CONPES 3484 (2007). “Política Nacional para la Transformación Productiva y la Promoción de las Micro, Pequeñas y Medianas Empresas: Un Esfuerzo Público Privado.” Ministerio de Comercio, Industria y Turismo y Departamento de planeación Nacional. Bogotá, Colombia.
- Cunningham, Wendy (2001) “Breadwinner versus Caregiver: Labor Force Participation over the Mexican Business Cycle” in Correia, Maria and Elizabeth Katz (eds.) *The Economics of Gender in Mexico* (World Bank, Washington, DC).
- Cunningham, Wendy (2004) “Sectoral Allocation by Gender of Latin American Workers over the Liberalization Period of the 1990s,” *Policy Research Working Paper #2742* (World Bank: Washington, DC).
- Cunningham, Wendy and Carlos Ramos (2006) “The Home as the Factory Floor: Employment and Remuneration of Home-based Workers,” *Policy Research Working Paper #3295* (World Bank: Washington, DC).
- Cunningham, Wendy (2007) *Minimum Wages and Social Policy: Lessons from Developing Countries* (World Bank: Washington, DC)
- Cunningham, Wendy, Linda McGinnis, Rodrigo Garcia-Verdu, Cornelia Tesliuc, and Dorte Verner (forthcoming) *The Promise of Youth: Policy for Youth at-Risk in Latin America and the Caribbean* (World Bank: Washington, DC).
- Cunningham and William F. Maloney (2001) “Heterogeneity among Mexico’s Micro-Enterprises”, *Economic Development and Cultural Change*, 50(1), 131-156.
- De Soto, Hernando (1989). *The Other Path: The Invisible Revolution in the Third World*. Harper Row, New York.
- ECLAC (2006) “Shaping the future of social Protection: Access, Financing and Solidarity.” Economic Commission for Latin America and the Caribbean.
- Fiess, Fugazza and Maloney (2002)
- Fiorito, R., and F. Padrini. 2001. “Distortionary Taxation and Labor Market Performance.” *Oxford Bulletin of Economics and Statistics* 63 (2): 173–96.
- Forteza, Alvaro (2007). Pension Policy Notes. Old-Age Pensions and Social Protection in Colombia. World Bank.
- Galiani, Sebastian and F. Weinschelbaum (2006) “Modeling Informality Formally: Household and Firms” *mimeo* (World Bank: Washington, DC).

- González, Diego (2006). “Regímenes especiales de tributación para pequeños contribuyentes en América Latina”. Banco Interamericano de Desarrollo.
- Harris, J.R. and M. P. Todaro (1970) “Migration, Unemployment, and Development: A Two-Sector Analysis” *American Economic Review* 60(1): 126-42.
- Kaplan, David, Piedra, Eduardo and Seira, Enrique (2006). “Are Burdensome Registration Procedures an Important Barrier on Firm Creation? Evidence from Mexico.” Stanford Institute For Economic Policy Research.
- Krebs, T., and W. Maloney (1999). “Quitting and Labor Turnover: Microeconomic Evidence and Macroeconomic Consequences.” Policy Research Working Paper 2068, World Bank, Washington, DC.
- Lasida, Javier and Rodríguez, Ernesto. (2006). “Entrando al Mundo de Trabajo: Resultados de Seis Proyectos Entra 21.” Baltimore, MD: International Youth Foundation, Serie de Aprendizaje 2.
- Levy, Santiago (2006) “Social Policy, Productivity and Growth.” Background paper for the regional study, Beyond Survival: Protecting Household from Health Shocks in Latin America.” The World Bank.
- McKinsey (2004) “The Hidden Danger of the Informal Economy.” *Mc Kinsey Quarterly* N. 3.
- Neumark, David (1993). “Sex Discrimination and Women’s Labor Market Interruptions.” NBER Working Paper Series No. 4260.
- Olivera, Mauricio and Carolina Gracia (2007) “Transitions in the Colombian Labor Market” *mimeo* (Fedesarrollo: Washington, DC).
- Packard, T. 2002. “Are There Positive Incentives from Privatising Social Security? A Panel Analysis of Pension Reforms in Latin America.” *Journal of Pension Economics and Finance* 1 (2): 89–109.
- Packard, Truman and Baeza, Christian (2006). “Beyond Survival: Protecting Households from Health Shocks”. World Bank, Stanford University Press.
- Perry, Guillermo, William Maloney, Omar Arias, Pablo Fajnzylber, Andrew Mason, and Jaime Saavedra (2007) *Informality: Exit and Exclusion* (World Bank: Washington, DC).
- Maloney, William (2004) “Informality Revisited,” *World Development* 32(7), 1159-78.

Santa María, Mauricio and Rozo, Sandra (2007). “Alternativas Para La Reducción de la informalidad empresarial”. Fedesarrollo. Unpublished.

World Bank (2001) *Household Risk, Self-Insurance, and Coping Strategies in Urban Argentina*. Report No. 22426-AR (World Bank: Washington, DC).

World Bank, (2005) *Colombia Labor Market Adjustment, Reform and Productivity. What are the factors that matter?* Report No.32068-CO, (World Bank: Washington DC).

World Bank (2007) *Argentina: Poverty Assessment. Informal Employment in Argentina: Toward Understanding its Causes and Consequences*. (World Bank: Washington, DC)

World Bank, WDR, **Development and the Next Generation**, 2007, Washington D.C.