

**Technical Report on *Employment and Income in Peru, Bolivia and Paraguay.*
Analysis of the links between labor demand and supply in urban and rural areas.
(The Peruvian case)**

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**Employment and Income in Peru, Bolivia and Paraguay.
Analysis of the links between labor demand and supply in urban and rural areas.**

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I. Research problem and justification (for the three countries)

This project has its underlying logic in the fact that each of the three countries involved—Bolivia, Paraguay and Peru, confronts serious challenges in generating an adequate level of decent employment, defined in terms of wage levels, working conditions, job security, etc. In this respect they are representative of many other nations, since providing adequate employment has become or remained a major challenge for a large number of governments in developing countries. Apart from the fact that employment generation is a major general challenge in so much of the developing world, there are two additional reasons for concern in these three countries.

First, labour market outcomes have been unsatisfactory in each of these three countries over recent years. In some cases, such inferior performance can be mainly explained in terms of slow economic growth (like in Paraguay and Bolivia). In the Peruvian case the outcomes have not been as good as one might have expected given the growth performance in the country, particularly during the present decade.

Second, these are all current or potential “natural resource curse” countries, in which a considerable share of exports create few jobs directly and may discourage employment in other tradable sectors, thus creating the special challenge of creating an adequate supply of jobs elsewhere in the economy. Given the presence of this structural feature, it is desirable to attempt to see to what extent it lies behind the weak outcomes, while also recognizing the need for an especially effective approach to employment creation under these conditions if outcomes are to be satisfactory.

Against the background of this challenge, the project proposed to focus especially on the labour demand. While labour market outcomes are influenced by the supply side, the demand side and the way supply and demand interact in the labour market (that is, by “labour market functioning”), we planned to give special emphasis to issues on the demand side, partly on the grounds that it is probably the most important of the three broad categories and partly because it is arguably the least understood in these three countries we do give attention, also to the supply side and to labour market functioning *per se*. How well the labour market performs in translating supply and demand into the best possible outcomes has been a matter of much debate in the context of the liberalizing reforms of recent decades for these three countries.

A satisfactory understanding of the determinants of labour market outcomes is hampered in these three countries both by a lack of analysis of the trajectory of those outcomes over recent decades and a lack of in depth analysis of key dimensions. The project addresses both needs; it includes, for each country, a review of the recent evolution (1998-2008) of labour market outcomes and a discussion/assessment of how changes in demand, supply and labour market functioning have influenced them. This is complemented by and sets the stage for a detailed look at the demand for labour in the key sectors for employment, principally small agriculture and small non-agricultural enterprises. These sectors provide by far the majority of all jobs in all three countries. Without knowing what determines their capacity to create jobs, there is no way to design effective employment strategies for the countries.

In summary, the main concern of this project is to understand the relevant factors that have determined the quantity and quality of employment (including wages and working conditions) – in the three countries and to give useful policy recommendations based on this new knowledge.

The structural reforms of the 80's and 90's

Like many countries in Latin America, Bolivia and Peru carried out structural reforms during the eighties and nineties for two main purposes: to achieve macroeconomic stability and to create conditions to promote economic growth and hence, to generate job opportunities as well as better jobs. The reforms sought to strengthen the role of the market as the main mechanism for resource allocation. Under the new reasoning, the state should as much as possible withdraw from economic activity and establish an institutional framework that would promote private investment. Only when necessary should it regulate activities that, because of their characteristics, would not create competitive markets.

Reforms occurred in several areas. The balance of payments was liberalized to encourage an influx of capital and to increase foreign trade. In order to contribute to the development of the capital market, banking system regulations were modified and a new pension system was introduced with the participation of private firms, whose funds came from worker contributions and were part of individual savings mechanisms. In accordance with its new role, the government sold state-run enterprises, offered public services in concession and downsized the central government administration. Labor markets were also a target of structural reforms, with focus on two areas. First, the number of public-sector jobs was reduced – as a result of the general government downsizing - and, second, labor contracts were redesigned to be more flexible and less costly.

The reforms made in both countries attained their goal of macroeconomic stability and, sooner (Bolivia) or later (Peru) a satisfactory economic growth rate – compared to the period previous to the reforms. However, during the years immediately following the reforms, the market oriented model did not create significantly more nor better jobs. Even several years after these reforms had been implemented, indicators have not shown significant improvements or enhancements. In consequence labor outcomes do not seem to have accompanied the good performance of the product indicators have shown.

Thus, based on the concerns and results mentioned above, the main question addressed by the research in Bolivia and Peru is: *Why has the new economic strategy or scenario not generated better job opportunities and work conditions?* Around this first concern more specific questions arise: What have been the effects of the structural reforms on labour market functioning? Why have they not contributed to better labour absorption and better working conditions? How have changes in economic structure arising from the structural reforms affected employment structure and, through that structure, poverty and inequality?

The following specific questions have been more or less addressed by the research:

- How has the interaction between labour supply and demand characteristics determined earnings and the quality of jobs? In terms of explaining earnings and income inequality, which are the most important factors, interrelations or restrictions on labour supply, labour demand and the links between the two?
- How do individual production units change over time? Which characteristics of firms give them more growth potential and/or make them more stable over time? Does, for instance, the access to financial credit contribute to production growth and thereby generate more jobs? How are the productivity, growth and stability of the firms related to the characteristics of their labour force, for instance, to their level of schooling?
- How do the dynamics of production units differ between rural and urban areas and between the most disadvantaged groups and others?

II. Objectives

The general objective of the research was *to analyse in depth the determinants of employment and labour incomes in the three countries with a view to offering well supported policy recommendations designed to generate more and better jobs.*

The specific objectives were:

1. To identify and analyze the pattern and trends in labour market outcomes over recent decades, with special attention to those variables and periods for which the outcomes have been unsatisfactory.

Objective achieved. Given the data constraints for labour indicators at national level in each of the 3 countries, the research was limited mainly to the period from the mid or late nineties until 2007 or 2008. Even though it is not a long-term perspective, it is the most comprehensive national look labor markets in each country, unlike other works where the long term view has been made based on urban areas or on metropolitan regions. During the 10 or 11 year period the 3 countries have had periods of growth and stagnation or recession, but that decade represented in average relatively high growth rates (Bolivia and Peru) or least low but positive growth rates (Paraguay). However, neither adequate employment nor labor income have kept pace with the product.

2. To analyze the dynamics of employment and labour incomes in urban and rural areas through supply – demand links as these manifest themselves in selected sectors of special importance to overall employment outcomes.

Objective almost completely achieved. Both Peru and Paraguay did analysis of job transitions using panel samples (in the Peruvian case) or pseudo panel (in the case of Paraguay). In the case of Peru, also using the same panel samples a comparison was made of changes in income according to the transitions of the occupied labor force, and some advances were made on the analysis of job creation and job destruction within informal

microenterprises. Unfortunately, the high turnover rate among different economic activities limit the analysis and it was decided to exclude this part of the work even though it was part of the initial proposal.

3. To analyze the impacts of the structural reforms (especially in Peru and Bolivia and to some extent in Paraguay) and of the fragility of the institutional framework surrounding the policies influencing labour market outcomes (Paraguay).

Objective achieved with some limitations. Bolivia and Peru reports include a description of the structural reforms and a review of the literature for each country about the impacts of structural reforms on labor outcomes. However, further evaluation would require a general equilibrium model that is beyond the scope of this project. In the case of Peru job creation and job destruction, and transitions between formal and informal employment were addressed in those economic sectors where reforms had important consequences (i.e. exports sector and activities where there has been significant inflow of FDI). The results indicate that these sectors have not contributed to increase transitions to formal employment nor to create significant job opportunities. A hypothesis which could explain these results is that these sectors are less labor intensive and have moderate but low inter-sectoral which is quite plausible because we are referring to mining and telecoms sectors.

4. To propose, following the research findings, policy recommendations to generate more and better jobs.

Objective achieved with some limitations. The disappointing results of our research suggest that labor problems require more elaborate and wide policies to face the low capacity to generate adequate employment and improve labor income. In Peru, the latest measures to promote formality have serious limitations because on the one hand, they only reached a very small group of micro enterprises and, on the other hand, they suppose that the main reason for informality is the high costs to become formal. The look of microenterprises (often family businesses) in Peru in both rural and urban areas suggests that very low allocation of capital is a major limitation for the development of this sector.

Using the main results of the Peruvian studies on Peru, a policy note has been prepared by an expert on labor issues and public policies. This policy note has reviewed by the coordinator of the project and a journalist specialized in economic matters edited the document in a language more accessible to a wider audience and not just for academics and experts.

Finally, it is important to note that during the development of the project, the World Bank commissioned a paper on labour productivity in Peru to the project coordinator. This paper is part of the background papers for the sectoral analysis on labour markets in Peru. In the preparations of this paper the coordinator worked with Mario Tello from the Department of Economics at the PUCP. The sectoral analysis prepared by the World Bank is expected to be released by the beginning of the next year and also be used during the policies discussions in face to the presidential elections of April 2011.

5. To disseminate and discuss the research results, principally with key persons of the public and private sector, academics, and the international cooperation agencies working in the three countries.

Objective with significant progress and continues. Meetings were held with different audiences, including experts from INEI (Statistics) and the Ministry of Labour. The *Tercera Conferencia de Economía Laboral* was held with a participation of national and international experts (more than 30 presentations) and significant participation of the audience. All countries have prepared working papers and soon a book containing the main contributions of the three countries will be published.

The book presentation will take place during the Annual Conference by CIES next December. The conference will include a brief presentation by one of the editors of the book that also coordinated the project, and then there will be comments from three types of people: a government representative from the Ministry of Labour, an expert on labour economics, and one person related to business.

III. Methodology – The Peruvian case

Objectives 1 and 2

The analyses of the patterns and trends in labour markets outcomes were made for the period 1997-2008 at national level. Some comparisons were made with Metropolitan Lima just to have an idea of the bias in the labour variables behaviour when only Lima is used instead of national figures. The size, the composition and also the evolution of the employment were observed for aggregated figures (to discuss its relationship with value-added trends) and for both formal and informal employment (to evaluate the differences in trends and relationships in both with value-add). We introduce a complementary measure of employment considering standardization by the length of working hours per week. That means that employment, from our point of view, has a better approximation when workers are standardized in full-time workers. This measure works better (i.e. by having a closer relationship) when compared with macroeconomic performance.

Another thing that we do not include systematically in our reports but is important is related with the treatment of the unpaid family workers (UFW). The national labour statistics exclude those UFW who work less than 15 hours per week, even though for other categories just one hour is used to be considered as part of the occupied labour force. At the end those excluded workers represent around 6-7% of the labour force making that these categories could represent approximately 20% of the total labour force. If, finally, we consider that child and youth labour (6 to 13 years old) is very high in Peru (around 30%), an important underestimation of the labour force is made by the official labour reports.

Micro and small enterprises

We call micro and small enterprises those production units non-registered and in activities different than agriculture and forestry.¹ From a static perspective, we characterize the informal sector with the new data available in the ENAHO. The characterization of the informal sector includes three angles. First, from the point of view of the production units itself (e.g. sector of activity, number of employees, years of establishment, seasonality, infrastructure). Second, the characteristics of the manager or the owner of the production unit (sex, age, relationship to head of household, schooling). Third, a description of the labor force used (wage earners and unpaid family workers) by the informal production units.

The main sources of data used were the ENAHO from 2004 to 2008². These surveys contain a labour activity module that is applied to each working-age member at the household level, with questions about the characteristics of their jobs: i) type of business by sector (i.e., public or private sector), ii) type of business by *formality* (i.e., whether it is registered and/or complies with certain formal administrative practices), iii) type of contract between the worker and the business, and iv) business size (as determined by the number of workers). Besides this module, the ENAHO has included since 2001 a new one that reports information on the production units run by members of the household. Thus informal business³ owners and independent workers are asked about the use of resources (work force, infrastructure, whether or not they have their own equipment), production and costs. There is a version of this module for non-agricultural activities (applied especially in urban areas) and another for agricultural activities.

The original proposal included a dynamic analysis of micro enterprises from the point of view of creation and job destruction. However, a database with the panel sample with these modules of the ENAHO has not been made yet by INEI. During the construction of the panel of these micro enterprises by ourselves, a large number of cases were missed. We think that this happened because of a large rotation rate within this business segment.

Rural employment and small family farms in Peru

Rural employment and small agriculture in Peru was faced following three ways. First, a description of employment in rural areas at national level covering years 2001 and 2007 to identify structural characteristics and possible changes in those characteristics. This characterization included a particular review of the case of small family agriculture. Second, an analysis of labor demand of small-scale agriculture at national level was conducted. For this purpose we used econometric techniques (OLS and Tobit regressions). Third, we did an analysis of the labor supply of rural households in a very specific context of small commercial agriculture in three valleys of Peru. This analysis required estimation of production functions and the shadow wages in order to estimate

¹ The small family farms, that is, those in agriculture and forestry activities were also studied but separately. See next section.

² Initially we propose to work with the ENAHO from 2001 to 2008. Unfortunately, to guarantee comparability in the main figures we only considered them from 2004.

³ This will be business that either are not formally registered or do not use accounting books.

labour supply of households dedicated to commercial agriculture. OLS techniques were used in this case.

Additionally to the ENAHO (which was presented before) we used the Household Survey of Farmers (*Encuesta de Hogares a Agricultores*, EHA) applied in Piura, the Mantaro Valley (Junín) and Chepén (La Libertad) at different times between 2003 and 2007. This survey is part of two agreements, one between IEP and the University of California-Davis, and the other between IEP and the University of Wisconsin-Madison. Both are part of the BASIS CRSP Project (funded by USAID)⁴. The survey provides information about the main characteristics of the households and their productive activities (farm and non-farm)⁵. In Piura, the sample consists of 459 households and is the same as the one used for a similar survey by CIPCA and the University of Wisconsin in 1997. In the Mantaro Valley and Chepén, the household samples were based on the PETT registry for the valley and consist of 307 and 600 households, respectively.

To complement the information in the surveys, new interviews have been conducted with some of the producers surveyed. One visit will be done at the beginning to gather qualitative information about labour opportunities and the land market. During this visit, additional information can also be gathered about each farm's environment, its dynamism and its specific characteristics. During a second visit, producers and local stakeholders will be interviewed to present the results of the model and contrast them with their views.

Objective 3

In Peru, the analysis of possible effects on the performance of labor markets linked to structural reforms has focused on two areas, the opening of the trade balance and foreign direct investment. This analysis was made taking as a key indicator of vulnerable employment, i.e. the probability of loss of formal employment. For them we used a multinomial logit model that analyzed the transitions from formal to informal employment, inactivity or unemployment.

Data for these econometric exercises comes from the ENAHO panel from 1998 to 2008. For each transition only two consecutive years was considered (although the sample panel allows an individual to follow in five years) due to the fact that the loss of sample size grows as the panel size becomes larger.

Objectives 4 and 5

Our research proposal seeks to provide a better understanding of labour market functioning, and hence, labour outcomes, taking into account the links between both sides of the market. These links will be analyzed in special detail in the informal sector, which represents the largest employment proportion in all three counties. It was already mentioned that more

⁴ Additional information can be found at www.basis.wis.edu

⁵ These surveys were used in two different research processes, related to the access and use of credit and insurance by small farmers. In some way the proposed research will complement the previous researches and will add value to the analysis of the information gathered through BASIS CRSP.

than one half of the urban labour force in each country (even more in rural areas) are working in micro and small business (which are also most of the informal sector). From a better understanding of the labour markets we will be able to identify policy recommendations that could help to produce better labour outcomes, that is, more and better jobs in urban and rural areas.

Dissemination has been done by publishing the results of the research. In the Peruvian case three working papers have been produced to explain the research results, around 3 to 4 working papers per country (see details below). The working papers will be presented in the Third Labour Economics Conference (CEL in Spanish) and other seminars. A book with the main contributions of the three countries will be published soon.

Peru: CIES and policy influence

In the Peruvian case particularly, we will take advantage of CIES (Consortio de Investigación Económica y Social) to establish a joint dissemination strategy. CIES has long and fruitful experience making links between academic work and policy makers, and has an on-going effort with the Overseas Development Institute (ODI) to work on policy influence in general. CIES also helped to the dissemination organizing meetings with media and the Third Economic Labour Conference (CEL, Conferencia de Economía Laboral) carried out in October 2009. The first two conferences (carried out in 2004 and 2006) covered different topics of the research agenda at that time. For the third conference we had a special table for the research results from the three countries in this project (see details below).

IV. Project Activities - implementation and management⁶

The project had four types of activities. First, regional technical meetings with the teams of the 3 countries. Second, workshops or small meetings with experts from public and private institutions. Third, the Tercera Conferencia de Economía Laboral (3CEL). Fourth dissemination through the media of the results of the research project and the papers presented at the CEL.

Regional technical meetings

Technical meetings with the three countries teams were made in Peru two times, one at the beginning of the project and another near the end with the main results obtained after 17 months since the project started. In August 2008 researchers of the national teams met at the Pontificia Universidad Católica in Lima to discuss some conceptual and methodological issues. Even though the way in that each team will handle each objective depends on their own interest, particular national context and availability of data, the idea was to have a minimum common approach to some aspects of the research, particularly on those matters related to characteristics of the labor markets and general macroeconomic context, as well

⁶ See the Project website:

http://mileto.pucp.edu.pe/cisepa/index.php?option=com_peoplebook&Itemid=2&func=fullview&staffid=417&search=&previous_field=&previous_term=&search_status=&search_category=&sort_field=&sort_order=

as their trends. During the meeting the project advisor, Prof. Albert Berry was working with us and Prof. Michael Carter brought comments and suggestions for analytical and empirical research strategies.

The second internal technical meeting was held just before the Tercera Conferencia de Economía Laboral at the Pontificia Universidad Católica campus. This last meeting was done to review in detail the research results of each country. Prof. Berry has been reviewing the drafts of the papers prepared for this technical meeting.

Technical meetings between the teams, from my point of view, are crucial for a successful coordinated development of the project. This in turn requires that the project has a substantial part based on studies that are strictly comparable across countries and this depends on the initial research proposal. This last subject of the proposal will return later in the last section of this report. Under the assumption that the project has components that are strictly comparable, the project's development requires greater coordination between the teams. This can be accomplished in part with the national team meetings, but I think the regional technical coordination should be much more dedicated to monitoring the progress of each team with site visits to each team throughout the project development.

Workshops with experts

During the project, at least in the Peruvian case, we held some meetings with experts from Instituto Nacional de Estadística e Informática (INEI), Ministerio de Trabajo, Ministerio de Economía y Finanzas, ILO-Lima and researchers from universities and research organizations to explain the objectives of the project and the main findings and problems found with the data and important measures of labor indicators used by our national statistics system. The CIES (Consorcio de Investigación Económica y Social) gave us the facilities to organize such meetings which were conducted in the Instituto de Estudios Peruanos (IEP) during the last quarter of 2008.

Meetings with experts and researchers from outside the project offer opportunities to improve the research work, either because of questions raised in them either by the suggestions received. This is a type of activity that should be done anyway. However, we must contemplate that in some cases, these meetings can be quite frustrating. Peru's experience with the INEI and MINTRA regarding the treatment of the UFW, for example, felt it would end up with an improvement in the statistical system. However, this, despite the willingness of officials, failed.

The third activity was the Tercera Conferencia de Economía Laboral (3CEL) held on 29-30 of October, 2009 on the campus of the PUCP (see conference program in annex 1). During the 2-day conference, 31 papers were presented. Due to the volume of works that were selected for the conference, three pair of sessions were simultaneous. The keynote speakers were Carmen Pagés (IDB) and Ricardo Paes de Barros (IPEA / Rio). Eleven presentations (not counting those from the keynote speakers) were offered by researchers who came from abroad (Canada, USA, Brazil, Colombia, Bolivia, France, World Bank). All dealt with the various labor problems of Peru and also throughout Latin America. The participation of local researchers included the best we have in Peru. These researchers are from major

institutions like the Universidad del Pacífico, GRADE, CEDEP, Ministerio de Trabajo, SASE and Pontificia Universidad Católica del Perú. There were three special sessions. One was the meeting where the results of studies funded by IDRC were presented. The second was a session prepared by the NIP (Network on Inequality and Poverty, Peruvian chapter), and the third session was coordinated with the World Bank where four recent reports prepared for the main study of labor markets in Peru were presented.

V. Project outputs and dissemination

Publications

By the end of the project 9 reports, 3 for each country, were produced. Each national team decided what they will do with those reports. In the Peruvian case the three reports were first published as working papers and reviewed versions of them have been included in a book *which will be published by the end of November*. Bolivia also made a publication with the whole set of papers including case studies. At the moment we are writing this report, we know that the Paraguayan team decided to publish their three reports but still being in process (see annex 2 for the complete list of publications).

The complete list of reports prepared by the national teams plus 2 additional general chapters included in the book to be published is as follows:

Desafíos laborales dos décadas después de las reformas estructurales.

Bolivia, Paraguay y Perú, 1997-2008.

José Rodríguez y Albert Berry (editores)

Capítulo 1

Buscando entender la evolución de los indicadores laborales en Bolivia, Paraguay y Perú

Albert Berry

Capítulo 2

Transiciones laborales, reformas estructurales y vulnerabilidad laboral en el Perú: 1998 – 2008

Rosa Morales, José Rodríguez, Minoru Higa y Rodrigo Montes

Capítulo 3

Informalidad, empleo y productividad en el Perú

José Rodríguez y Minoru Higa

Capítulo 4

Oferta y demanda de trabajo en la pequeña agricultura: una mirada a la situación del Perú rural

Ramón Díaz, Raphael Saldaña y Carolina Trivelli

Capítulo 5

Mercado laboral y reformas en Bolivia

Beatriz Muriel y Luis Carlos Jemio

Capítulo 6

Estudios de caso para la generación de empleo remunerativo en Bolivia

Beatriz Muriel, Lykke Andersen, Tania Evia, Horacio Valencia y Laura Valdez

Capítulo 7

Trabajo No-agrícola de las Familias Rurales de Bolivia: Un Análisis de Determinantes y Efectos

Lykke Andersen y Horacio Valencia

Capítulo 8

El mercado laboral paraguayo: un análisis del comportamiento del empleo y los ingresos entre 1997 y 2008

Cynthia González, Julio Ramirez y Marcelo Perera

Capítulo 9

La dinámica de los ingresos laborales y el empleo en Paraguay: un análisis de pseudo-panel entre 1997-2008

Marcelo Perera, Cynthia González y Julio Ramirez

Capítulo 10

Caracterización y evolución del empleo rural en Paraguay, 2003-2008

Julio Ramirez, Marcelo Perera y Cynthia González

Capítulo 11

Conclusiones e implicaciones de política

Albert Berry y José Rodríguez

Tercera Conferencia de Economía laboral

On average, 80 people attended the sessions of the 3CEL. The conference was fully recorded and is available online at no cost at:

(<http://videos.pucp.edu.pe/videos/buscar/0/3cel>).

The conference has a website (<http://corinto.pucp.edu.pe/3cel/>) where the recording of each presentation, PPT and in some cases, complete documents have been copied. The conference was covered by media, both radio and television and print media (see in annex 3 a dossier prepared by CIES).

VI. Project outcomes

For the Peruvian community (including the research team) the project had several outcomes.

Data and methodological outcomes

- The review in detail of the various sources of labor data and identification of their strengths and limitations. This is very important for future research efforts. An important conclusion of this reviewing is that research in labor economics only used part of a large set of data.
- Gain experience in using the ENAHO panel samples that in fact have been less used by the research community particularly for labor economics research.
- We have learned that the real and relevant size of the labor force is quite different if the number of people or the number of hours is used. Even most, these two variables behave differently over the economic cycle and its comparison helps to

understand why the former seems to have a poor relationship with the economic activity at national level.

- The opportunity to review the main definitions of the labor market indicators (in the Peruvian case) have contributed to an identification of biases that underestimate the Peruvian labor force. One very important bias comes from the exclusion of the unpaid family workers (UFW) that worked less than 15 hours per week. A review of labor statistics systems from other countries show that there are few countries doing similar treatment of the UFW. Moreover, institutions like ILO and OECD do not recommend this practice. This problem has been the subject of technical discussions with experts from the INEI and the Ministry of Labor. Even though the experts of the Ministry said that they will review the methodology used for the official labor statistics, we haven't knew about any adjustments in the official estimations.
- Another source for underestimation of labor force comes from child and youth labor. As is common in many countries, the counting of labour force considers population starting at 14 or 15 years old. *This become from* the minimum age law that many countries fixed in the context of the ILO agreements. Recent estimates for Peru found that around 2 thousand minors (from 5 to 13 years old) also participate in economic activities (most of them as unpaid family workers). These last two points indicate that the labor force in countries like Peru has an important underestimation which implies, for example, that average labor productivity (i.e. the ratio of value added to occupied labor force) is in fact overestimated.

Outcomes from the experience of working in inter-institutional and international teams

- The Peruvian team was a result of a reunion of researchers of two different national institutions. The technical meetings of 7 researchers (including young cohorts) brought an interesting and productive space for discussion and criticism along the development of the research.
- Moreover, interactions with the teams of the other two countries during the technical meetings, even though less frequently, also contributed to a more productive work. We had the opportunity to learn about other countries labor statistics and databases and to contrast the three labor markets. It is important to mention also that one of the young Peruvian researchers visited Paraguay to share his experience using Stata *with such a large database* like those related to labor indicators.
- The contributions of Albert Berry along the project, and Michael Carter in the early stages of the project were very important enriching the development of research. Not all his contributions were incorporated by the limitations of the data, time or our own capacities. No doubt many of their contributions will be considered in future research.

VII. Overall assessment and recommendations

Management

My overall assessment as coordinator of the project is very positive as was said above. Here I want to focus on some recommendations and suggestions for projects of this magnitude.

First, and this is partly a self-criticism, to be a regional project it is desirable that the interests of national teams are much more closely linked or related and this requires on the one hand that the technical proposal is very close between countries and that the coordination itself must be closer for technical purposes. Only one of these ingredients is not enough. This does not mean there are no chances for autonomous components in the proposal for each country, but that the common part of the proposal should be the largest and substantive support for the regional perspective.

Second, from a strictly personal standpoint, I believe *ex post* that to ensure regional coordination of the whole team the coordination cannot have large responsibilities in the development of the project in the coordinator country's team.

Third, the preparation of a publication as a book of high quality requires much more time than was envisaged in the project. Backwardness that was held in the completion of national reports has been added to the enormous effort of editing the contents of the book. Importantly, the book only collects the contributions of research conducted under the project and not a larger set of the papers presented in the 3CEL. A larger publication would have required far more time than was assigned for the publication.

Research agenda

Some issues were not addressed in sufficient depth or scope, and others have emerged from research findings. Without being exhaustive, some of the issues we think might be interesting to address in subsequent research are identified below.

- Viability of informal microenterprises. If all micro-entrepreneurs and not just microenterprises are included, the former represent the most frequent activity in the Peruvian economic active population. Most of the Peruvian families have at least one member in the labor force involved in economic activity has been self-generated. Although we suspect that the vast majority of these initiatives are not sustainable in the long run, some of them seem to have the capacity not only to survive but even grow. Panel samples of the ENAHO will be very helpful for exploring and analyzing which micro-entrepreneur has shown this capacity and the factors that are associated with this behavior.
- Although it was originally planned to analyze the role of access to credit in rural areas, the first attempts to address did not allow us to fully analyze this issue. This is, without doubt, a research area to which resources should be devoted.

- The analysis of job transitions revealed a significant mobility between occupied labor force and non-active population in both directions. Instead what we expect is that those who lose a job go to unemployment and those who get a job come from unemployment. One possible explanation for such transitions is that hidden unemployment is running as a transitional stage especially during the economic recession or stagnation.
- The detailed analysis of supply and demand for labor in rural areas especially in the small farming has found evidence that labor supply and demand are relatively inelastic. This does not create conditions for greater capacity to generate jobs in this sector even though it represents an important proportion of employment. In this context it is important to find other structural ways to change the conditions for labor creation.