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**Office of Trade and Labor Affairs**  
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## **Overview of New ILAB-Sponsored Research Papers on Worker Rights and Livelihoods**

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### Introduction

The Department of Labor's performance goal for the Bureau of International Labor Affairs (ILAB) is to improve worker rights and livelihoods for vulnerable populations. The Office of Trade and Labor Affairs' (OTLA) research program seeks to further the knowledge base on worker rights and livelihoods so as to better inform the development of sound policies and programs to achieve them. ILAB's support for research indicates that it recognizes that it needs new tools and new understanding to further its performance goal; that it needs to assess its existing tools; and that if it was fully known how to universally ensure worker rights or sustain livelihoods, those objectives would have already been met.

One strategy through which OTLA seeks to generate new knowledge is by funding a contract research program. One role for funded research is to bring more expert and rigorous information directly into ILAB. Another is to incentivize the external research community to take on worker rights and livelihoods issues as on-going research agendas. One paper rarely settles an issue. Instead, a paper usually is a stop on a longer road map to understanding. Our limited funding is most effective when it starts researchers on the journey, or keeps them going on it. We learn some things at the particular stop that we fund, but ideally we learn much more by following the journey the researchers follow in subsequent projects.

OTLA places particular emphasis on research that helps explain individual or institutional behavior. Empirical research that is connected to a well-developed theory and seeks to identify the causal behavioral channels through which a policy or program intervention may be expected to have its impact is especially valuable, because well explained evidence is convincing in a specific context, and a well-developed theory generates more confidence that specific results have potential to be generalizable to other populations and problems.<sup>1</sup>

In Fiscal Year (FY) 2011, OTLA ran a funding competition that resulted in the award of three contracts:

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<sup>1</sup> For more on the importance of external validity, please see "Overview of ILAB-OTLA Contract Research program on Livelihoods and Consumption Smoothing" available at <http://www.dol.gov/ilab/programs/otla/elrcontracts.htm>.

- “Working Conditions and Product Quality: Evidence from Carpet Industry in Pakistan, India, and Nepal” – International Child Action Research and Evaluation (ICARE) (Eric Edmonds and Nina Pavcnik)
- “Long-run Effects of a Public Housing Program on Occupational Opportunities and Economic Outcomes” – Harvard University (Rohini Pande, Erica Field, and Sharon Barnhardt)
- “Experimental Estimates of a Workplace Malaria Testing and Treatment Program on Worker Earnings and Productivity” – International Food and Policy Research Institute (IFPRI) (Andrew Dillon)

These three contracts produced four research papers that are available from the ILAB Web site [<http://www.dol.gov/ilab/programs/otla/elrcontracts.htm>]. The first of these papers contributes to ILAB’s worker rights agenda: the working conditions studied are each associated with some internationally recognized worker right. The remaining papers contribute to our understanding of livelihoods by showing how constraints related to housing and health affect workers’ behavior and ability to work, to be productive, and to support themselves and their families. The remainder of this brief summarizes the research and findings and new questions raised for the continuing research journey.

### Worker Rights

Anecdotal evidence suggests that at the factory level, low quality production correlates with poor working conditions. ILAB has an interest in better understanding this relationship, as the potential for a “business case” for improving working conditions could be an attractive policy lever. ILAB’s solicitation for research proposals identified one topic of interest as the rigorous examination of the relationship between working conditions and product quality.

Using data previously collected through an ILAB-funded project focusing on child labor, ICARE researchers Eric Edmonds and Nina Pavcnik examine the relationship between 14 aspects of working conditions and five product quality related outcomes in the export-oriented, handmade carpet industry in India, Nepal, and Pakistan. This research represented a unique opportunity to dive deep into correlations between work environment and business outcomes in a specific country-industry context, and to learn more generally about the mechanics of quality and working condition measurement. The research produced two key findings. First, while they find better working conditions are generally associated with better quality, these results appear to be largely driven by establishment characteristics. The ICARE research does not provide evidence to support to the notion that improvements in working conditions can be self-sustaining due to increases in product quality in the handmade carpets industry in the three countries studied. Second, the research showed clearly that the standard measures of working conditions – hours

and wages – are not sufficient to capture fully the work experience. Greater detail is needed to study working conditions.

This research provided some immediate insights for ILAB’s technical assistance programming. As this study demonstrated, ILAB can leverage its limited research funding by exploring the greater research potential of existing data and projects. In this case, ILAB’s initial investment in a project funded by our Office of Child Labor, Forced Labor, and Human Trafficking (OCFT) resulted in a rich factory-level dataset that could continue to be used by researchers to provide useful insights on topics well beyond the scope of the initial project. In addition, the study provides recommendations for obtaining more accurate data on working conditions and product quality that can be helpful for ILAB when planning future projects that have a data collection aspect.

This research also leads to new questions for future research. The initial correlations between product quality and working conditions vanish with the introduction of controls for establishment characteristics. This opens an interesting new area for future exploration. Future research to determine whether there is a common factor that causally explains both improved product quality and working conditions – for example, manager talent – and if that common factor could be used as a policy instrument could be very valuable for ILAB’s technical assistance efforts. The research also raises interesting questions about how to best measure less visible labor standard compliance and working conditions (e.g., illegal conditions such as forced labor) and conditions requiring scientific examination to detect (e.g., occupational safety and health concerns like air quality and exposure to toxins). Edmonds and Pavcnik demonstrate clearly the value of detailed working conditions information, but despite their rich dataset they too were required to use proxies in certain instances. Research providing standard and practical methods for collecting information on a range of working conditions could bring greater accuracy and insights, and revolutionize the way we study worker impacts.

### Livelihoods

The Harvard University team studied the long term influences of housing quality on sustainable livelihoods for urban poor. The researchers focused on a 1993 slum relocation program in a large Indian city that used a lottery to select *beedi* workers (women who make unfiltered cigarettes in the informal sector) to be offered the opportunity to purchase a subsidized, newly-constructed home in a fairly isolated public housing community located on the outskirts of the city. The relocation program studied was created in response to lobbying efforts by the Self-Employed Women’s Association (SEWA) Union, the union for female informal workers in Ahmedabad. SEWA had identified housing insecurity and high and unregulated rent as a key challenge to income generation for *beedi* workers, and this program sought to address this challenge.

The original program was implemented by random lottery, thereby providing the researchers the experimental conditions needed to estimate the long-term differences in impact between the lottery winners (treated group) and losers (control group). The research team surveyed the lottery entrants (both winners and losers) in 2007 to assess the difference in outcomes and conducted structured interviews with a small sample in 2011. They found no difference between lottery winners and losers in long-term income, measures of economic well-being, and children's education and health. They did find increased collective action and less social insurance and risk sharing among the winners of homes in the isolated community.

In addition to these findings, the Harvard study provided important general lessons for livelihoods research. First, the study confirms the importance of long-run tracking and long-run studies. Many lottery winners bought the home but never moved, and many moved to the new home, but did not stay. An evaluation based on secondary data such as real estate records would have missed this entirely, since according to these records, all the lottery winners own the houses they won (i.e., real estate records do show that despite the purchase, some “winners” never occupied their homes). Further, it demonstrates the need for research that considers the household as the unit of observation and considers how the “treatment” of one family member may result in (complimentary or offsetting) changes to the behavior in other household members. In this case, the location of the housing project had negative effects on other household members by creating long commutes to their jobs. These commuting costs, both in terms of time and money, created a cost to the housing program as a way to improve livelihoods. In fact, for many lottery winning households the costs accruing to other household members apparently outweighed the benefits generated for those households' *beedi* workers. Many lottery winning households declined to move in the first place or moved away in early years after the lottery. A third lesson derives from the creative use of lottery data to study causal, long term impacts as a natural experiment. By diligently tracking down the lottery winners and losers, Harvard researchers were able to benefit from random assignment that permits identification of causal impacts. Finally, the research also serves as an example of how qualitative information can be useful to supplement quantitative data.

These lessons should be carried over into other efforts to understand livelihoods. Take for example, ILAB's interest in achieving better livelihoods toward the goal of the elimination of child labor in the cocoa sector. Many of the current cocoa industry-funded interventions aimed at improving cocoa farmers' income-earning prospects, such as the provision of farmer field schools, focus on increasing cocoa yields. However, these efforts also make cocoa production at the farm-level more labor-intensive. Absent an available and affordable supply of adult labor, this could have the unintended consequence of increasing the demand for family labor, including that of farmers' children. While raising farmer productivity works toward increasing household income, and higher household income tends to reduce a household's supply of child labor; in

farming households, the lack of an external supply of labor to implement productivity-enhancing innovations may tend to increase the demand for the labor of the household's children. The net prediction then is that the effect of these interventions on the level of child labor is theoretically ambiguous and requires careful empirical investigation.<sup>2</sup> Expanding the reach of data (e.g., into the household) and type of data collected (e.g., qualitative and quantitative) will help to equip stakeholders with the full picture needed to make effective decisions.

The IFPRI research team contributed to the important, but small, literature linking empirically the consequences of ill health for labor productivity and economic development. Using a phased-in RCT experimental design, they estimate the effect of a curative workplace malaria treatment program on the labor productivity, labor supply, and earnings of a sample of Nigerian sugar cane workers.

As part of the experiment, a mobile health clinic was established on the subject plantation, and all workers were tested and treated in a randomly assigned order. Workers were interviewed and their days worked, daily amount of sugarcane cut, and their earnings were tracked. The findings of this study were highly dependent on context, specifically whether infection rates were high or low in a given season. In the high infection environment, there were statistically significant intent to treat (ITT) effects on labor productivity, income, and labor supply. This provides some possible motivation for employers to provide access to treatment. Also in the high infection environment, there were large average treatment effects (ATE) on income, but not labor supply or productivity.

In a second paper, the IFPRI research team investigates whether individuals have an economic incentive to use preventive rather than curative treatment by using simulations to compare expected pay offs from preventive and curative care. These simulations rely on both a static model that uses accurate and complete cost estimates and a dynamic model that takes into account an epidemiological dimension. The results show that the expected income differences under preventative or curative treatment are small, and that unobservables drive much of the prevention adoption behavior. The dynamic model demonstrates that prevention yields much higher expected incomes if the efficacy of the preventative measure is increased, but these effects are still small relative to average worker earnings. From a livelihoods perspective, these findings suggest that individual workers have little incentive to take preventative measures currently offered. The authors are careful to note, however, that this simulation is specific to the community of workers studied and the prevention approaches available to these workers.

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<sup>2</sup> The complex relationship between improving the productivity of a household farm or business and child labor has been discussed in a number of other papers. For a survey of these, see Edmonds, Eric V., 2008. "Child Labor," Handbook of Development Economics, Elsevier.

The IFPRI project serves as a model of the design and implementation of a phased-in RCT experiment where all participants eventually receive treatment. RCT experiments often face ethical questions due to the requirement of a control group that does not receive treatment. By staggering the treatment of participants, this study shows that it is possible to provide services to all participants while still receiving the benefits of establishing causal impact. Another lesson to take away from this research is that even in a well-designed RCT, there can be external factors that influence the results. If the experiment had been run during just one growing season, it would not have been obvious that the results were highly dependent on the infection rates. This makes the case that in some circumstances, important information can be gained by repeating the experiment.

This work has important and practical implications for ILAB's future research and evaluation plans for its technical assistance projects. Like much of the aid and development community, the Obama administration has placed clear and strong emphasis on evidence based budgeting. ILAB sees the great need to employ rigorous methods to estimate the causal impact of its technical assistance of workers and their families. However, given the vulnerability of ILAB's target population, a pure control group (i.e., one that does not receive any treatment) is difficult to defend. As noted, the IFPRI research demonstrates how to design and carry out a phased in RCT – considered the gold standard in impact evaluation – to study the effects of a given intervention. For logistical reasons, many ILAB projects are already implemented in a phased-in process. Therefore, the methods used in the IFPRI research provide guidance on issues to be addressed when using the phased roll out of an intervention to attempt to identify the impact of the intervention that could be applied to ILAB's work.