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Urban Longitudinal Research Methodology

Background paper written for the
Joint DPU-ODI-DFID-World Bank Workshop
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Acronyms

CWIQ	Core Welfare Indicators Questionnaire
DFID	Department for International Development
DPU	Development Planning Unit
DRP	Diagnostico Rapido Participativo (Rapid Participatory Diagnosis)
ENNIV	Encuesta Nacional de Hogares Sobre Medición de Niveles de Vida (National Living Standards Survey)
FA	Frustrated Achiever
GIS	Geographical Information System
GPS	Global Positioning System
HBS	Household Budget Survey
HEHM	Household Economic History Module
HIPC	Heavily Indebted Poor Country
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HSL	Household Subsistence Line
ID	Identification
IDA	International Development Association
IDRC	International Development Research Centre
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
IV	Intravenous
KIDS	KwaZulu-Natal Income Dynamics Study
LDC	Less Developed Country
LOFS	Land Ownership and Farm Size
LSMS	Living Standards Measurement Survey
MDR TB	Multidrug-Resistant Tuberculosis
NGO	Non-Governmental Organization
ODA	Overseas Development Administration
ODI	Overseas Development Institute
PPA	Participatory Poverty Assessment
PRA	Participatory Rural Appraisal
PRSP	Poverty Reduction Strategy Paper
PSID	Panel Study of Income Dynamics
PSLSD	Project for Statistics on Living Standards and Development
PUA	Participatory Urban Appraisal
QDA	Qualitative Data Analysis
RLMS	Russian Longitudinal Monitoring Survey
RS	Random Sample
SALDRU	Southern Africa Labour and Development Research Unit
SEPPI	Socio-Economic Study of the Persistence of Poverty and Inequality
SS	Sub-Sample
SSRC	Social Science Research Council
TNAU	Tamil Nadu Agricultural University
UP	Unidad Popular (Popular Unity)
UPA	Urban Poverty in the Context of Adjustment
USAID	United States Agency for International Development
WB	World Bank

Urban Longitudinal Research Methodology:

Background papers and summary of issues:
Joint DPU-ODI-DFID-World Bank Workshop
May 28th-29th 2003

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A Workshop on Urban Longitudinal Research Methodology was held at the Development Planning Unit on the 28-29th May 2003. It was organized under the joint auspices and support of the Development Planning Unit (DPU), the Overseas Development Institute (ODI) the UK Department for International Development (DFID) and the World Bank. Co-organizers were Caroline Moser (ODI) and Michael Safier (DPU) with assistance from Deepa Narayan (WB). As one of the workshop outputs, this working paper presents the ten commissioned background papers that provided the basis for the workshop discussion. In order to contextualize these short papers, this brief introduction describes the rationale for the workshop in terms of both its overall objectives as well as its contextual background. It then summarizes some of the key issues raised in the workshop – since these may be of wider interest to those concerned with the importance of poverty-focused longitudinal research, particularly in urban areas.

1. Rationale for the workshop

i. Overall objectives

The workshop aimed to provide a comparative review of the different methodological approaches utilized by social science researchers to undertake longitudinal research in urban poor communities in the cities of Africa, Asia and Latin America. These were contextualized in terms of such issues as associated poverty alleviation interventions and overall city development over time.

In inviting researchers with previous, ongoing or upcoming longitudinal urban research projects to share the details of the particular methodological approaches adopted (or intended to be adopted) in their research, the workshop had the following more specific objectives:

- To strengthen the methodology of longitudinal research projects, currently at the design stage.
- To share information on the advantages and limitations of different methodologies in terms of the most significant findings concerning the factors affecting upward or downward mobility and successful (or unsuccessful) associated livelihood strategies.
- To identify the methodological issues common to all projects that would allow for a comparative core element to be developed. This could mean that in the next phase of research, comparative cross-city results potentially may be possible.
- To establish an informal network of researchers working on this issue.
- To inform donors of the contribution that longitudinal urban research to addressing different aspects of inter-generational poverty.

In many senses this was a unique event in that it focused on the manner in which research results are reached – i.e. methodological issues – rather than on the results themselves, which is more typically the case. It also required researchers to take risks in allowing scrutiny of their research methodologies. Generally such methodological issues are reviewed at grant proposal stage and then, if mentioned at all, generally this is in footnotes when research results are completed.

ii. Contextual background to the workshop

Renewed concern with issues of urban poverty relate not only to the higher profile of poverty reduction generally – as illustrated by the World Development Report 2000/1 and the Millennium Development Goals – but also by fact that by the year 2020, 80% of the world's population will be living in urban areas. Linked to this is recognition that while economic growth it good for poverty reduction, the poor do not necessarily automatically benefit from such growth. This calls for more sustainable urban focused poverty reduction strategies. To address this requires far better understanding of the long-term intergenerational transmission of poverty, of poverty dynamics and of social and economic mobility.

While chronic poverty studies focus on those who become poor and remain poor, it is also important to identify the characteristics (causes and consequences) of families and households that get out and stay out of poverty, rather than slipping back into poverty.

Understanding the dynamics of poverty, particularly the intergenerational transmission of success or failure to move out, can provide important policy information relevant for future poverty reduction strategies.

Thus, the workshop was a timely event in which to consider the advantages and limitations of *different* methodological approaches. In the past decade a new generation of poverty research has broadened the definition and measurement of poverty from income / consumption measures to include those that encompass the complexity of vulnerability, exclusion and insecurity. In addition important insights gained from qualitative anthropological and sociological studies as against quantitative research are more widely recognized. The continuum of methodologies now includes:

1. *Quantitative household panel data* sets that focus on the individual and household, conducted primarily by economists with repeat household surveys
2. *Poverty mapping studies* that use a combination of household and census data over time
3. *Community panel data sets* focusing on social change, whether at intra-household, household or community level. These are repeat longitudinal studies conducted by anthropologists and sociologists in the same urban 'community' over the past 10 to 30 years
4. *Participatory methodologies* focusing on perceptions of well-being / ill-being

The fact that studies increasingly use different forms of 'mixed methodologies', poses important questions of robustness and representativeness as researchers seek to better understand what keeps some families and households in poverty, while others move out.

iii. Contents and participation

The workshop provided an opportunity to review both qualitative and quantitative methodological approaches used in longitudinal studies, identifying the advantages and limitations of each for future research projects. This linked the interests of researchers at ODI and DPU currently designing new phases of longitudinal research projects, the World Bank who are developing a 20-30 country study on 'Pathways out of Poverty: freedom from the bottom up ', and DFID supported researchers who have recently undertaken new longitudinal research.

Workshop researchers who have already undertaken urban research utilizing longitudinal methodologies came from universities in the UK, including the LSE, University of Sussex, University of Westminster, and Oxford University, as well as University of Illinois and Trinity College in the United States, and the University of Natal, South Africa and the Catholic University of Lima, Peru. Amongst the participants in the process of developing longitudinal research projects, in particular, were DPU-linked research institutions in the Netherlands, India, Zambia and Nigeria. Finally, other participants were researchers with a broad knowledge of urban poverty research relevant to the workshop, including UK based urban researchers with an interest in this research area.

iv. Workshop structure

The workshop was divided into two types of presentations.

- The first day and a half comprised 10 presentations from researchers who have already undertaken research using such methodologies highlighting particularly important aspects of their methodology and the associated key findings
- The second afternoon provided the opportunity for the DPU-linked team currently designing their research methodologies to respond to the information provided by briefly outlining the approach and methodology they intend to adopt (the results from this part of the workshop will comprise a second separate working paper).
- In addition time was made available for contributions from donors attending the event during introduction and closing sessions

2. Summary of key issues raised during the workshop

As the background papers published in this working paper well illustrate, the workshop provided the opportunity for a complex, diverse and rich debate. The following section therefore can only briefly summarize a few of the issues that emerged during the course of the workshop – suggesting their importance to longitudinal research methodologies regardless of discipline or geographic location. These can be divided into the following four areas, although it is important to note that these are not necessarily presented in the sequence in which they were raised at the workshop.

i. Substantive issues: the contributions and limitations of longitudinal research to understanding poverty

Since research methodology does not take place in the abstract, but is developed in a context specific manner, the workshop provided the opportunity to discuss a range of issues relating to the 'object of study' in urban longitudinal poverty research, many of them challenging traditional stereotypes of the contents of poverty studies. These included the following:

Poverty dynamics or economic and social mobility: What is the appropriate time scale for longitudinal research?

Is it meaningful to talk about movement in or out of poverty over a 25-year interval? A number of concerns were raised concerning the viable time-scale for longitudinal poverty research. There was a general consensus that comparative data sets, particularly panel data with gaps of longer than a ten year period, were less appropriate for tracking poverty dynamics (individuals or households moving in or out of poverty), and more useful for exploring issues relating to inter-generational economic and social mobility over time.

Mobility studies requires consideration not only of large-scale contextual changes at the political, economic and social level, including phenomenon such as natural disasters), but also, and possibly of even greater importance, recognition of the impact of various stages of the *life cycle.* For example, are people poorer because they are at a point when they are investing in their children's education? Here Jeanine Anderson used the concept of 'punctuated development' to describe the risks that parents experience launching the second generation and endowing them with the necessary resources. She described 'lines of upward movement as 'punctuated' by particular events that require the reorganization/reallocation of resources. Following up on this Jeanine Anderson referred to launching the second generation (in terms of endowments provided) as the 'acid test' of moving out of poverty.

The non-poor as well as the poor: The breadth of study?

Do studies of poverty focus too narrowly on the poor? Some workshop participants identified the need for a broader field of study, bringing in comparative data from the non-poor. Phakama Mhlongo, for instance identified how the longitudinal study in Kwa-Zulu Natal have identified four categories: those who stayed poor; who were never poor; who went into poverty; and who moved out of poverty. Others such as Barbara Harriss-White described the importance of longitudinal research that focused on the creation of productive wealth ('the merchant road to capitalist wealth') – in her case longitudinal research on enterprises in a South Indian town. This data is crucial to identify who falls in to poverty, as well as who climbs out. Researching the 'near-by poor', those with whom the poor interact, also brings into focus new issues such as trade, power, and prestige, and is particularly important when respondents routinely leave their residential areas and commute to middle-income neighbourhoods for employment and other activities. A focus on the poor themselves in poor areas misses the relationships between the rich and the poor**.**

What are the distinctions between poverty, inequality or subjective perceptions of well-being?

More widely recognized than before is the importance of measuring changes and not only in poverty levels but also in mobility. For instance, Susan Rigdon's construction of five generational 'genograms' from Oscar Lewis' Puerto Rico anthropological fieldwork notes, illustrated the appalling inter-generational transference of inequality as measured in terms if illiteracy and ill-health. Yet another variable concerns changes in perceptions of well-being and 'happiness'. Carol Graham's comparative research using data from Peru, Russia and the USA highlighted non-economic reasons for upward mobility as well as introducing the concept of 'frustrated achievers' – better educated, particularly urban populations (with greater comparative reference groups) who in terms of subjective well-being saw themselves as worse off than before even though their income levels had increased – with an associated fear of becoming vulnerability to falling into poverty.

In this sense, moving out of 'poverty' may relate less to objective economic measures and more to subjective hopes and aspirations. In her longitudinal analysis of Guayaquil, Caroline Moser referred to 'rising aspirations and growing despair', while in Rio, Janice Perlman highlighted the growing exclusion that accompanied the increasing gap between rich and poor as people struggled over 30 years to be 'gente' (people). Here poverty was identified as a social construct – with globalisation adding a dramatic spatial extension to the universe of reference groups studied longitudinally.

Getting out of poverty or acquiring 'urban savvy'?
Based on her intergenerational longitudinal research in Lima Peru, Jeanine Anderson identified the importance of acquisition of 'urban savvy' – knowledge of how urban institutions function as a critical intergenerational measure of 'making it' in cities. This slow accumulation of knowledge and information of the impacts of essential services on well-being are critical for upward mobility, and to avoid falling into destitution.

Is breadth or depth in longitudinal research more important?
To incorporate the growing agenda of new poverty-related issues means that choices often have to be made relating to the range of issues to be addressed longitudinally. The Young Lives Project described by Trudy Harpham, for instance, has chosen 'breadth over depth' in including a range of questions relating to livelihood assets, social relations (social capital) and uptake of social services (and their associated institutional performance). In contrast to this, Deepa Narayan identified a balance between 'hard data' from a robust sampling frame, and 'soft data' that adds value in providing subjective perceptions of well-being.

Are there differential gender-based intra-household impacts of economic crises?
Longitudinal research has clearly acknowledged the differential impacts of poverty within the household. However, more recently there has also been greater recognition of counterintuitive gender power dynamics in terms of differential impacts on men. In Lima, Jeanine Anderson identified the development of 'female domestic fronts' as an outcome of the Peruvian economic crisis. When men lost their jobs their wives were often forced to take on additional income generating activities. To balance this with reproductive responsibilities other female relatives were introduced into the household and the outcome was one of increased hostility between women and men. Male 'dethronement' often resulted in their being pushed out of the household. (Debby Bryson referred to a similar phenomenon in the Welsh context as 'men with cookers'). This loss of prestige of adult men has important intergenerational implications in terms of the links between male identity and increased risks of substance abuse, now associated with urban youth.

Tracking poverty or mapping policy?
Given the selection process, presentations by workshop participant's prioritised longitudinal tracking of poverty trends, rather than those that focused on changes in urban policy *per se*. Although there were numerous contextual references to poverty reduction or infrastructure interventions, the inter-linkages between the two were not explored in great detail. Indeed, as discussed in the sections below on causality and micro-macro linkages, assessments of the impact of policy on poverty are particularly difficult to analyse, as identified by Caroline Moser – and in all probability require researchers specifically mapping policy changes to make inferences in terms of impacts on poverty levels. The Young Lives Project described by Trudy Harpham hopes to develop the methodology to better understand the relationships between 'life-cyclical effects and policy effects'. Equally Carol Rakodi identified the importance of unpacking people's experiences of service delivery in terms of its impact on their well-being. As Michael Safier mentioned, this is a particular challenge that the DPU linked team of researchers would like to address, primarily as it relates to city-wide policy.

Poverty or service provision: Changes in household (or individual) poverty or in formal or informal institutions that deliver for the poor?
Closely linked to the above, is the issue as to whether tracking changes in household income or consumption levels sufficiently addresses institutional changes in the delivery of infrastructure and social services. David Satterthwaite identified the importance of longitudinal research on collective activists challenging structural power to achieve institutional changes for local communities. He argued that the failure of institutions that are meant to deliver services for the poor is an important poverty-related issue and therefore a necessary focus for longitudinal research. Recent global experience of local-level organizations increasing their capacity to negotiate with the state for the delivery of such services, or to hold state institutions more accountable – has resulted in benefits for the poor even in non-growth economic contexts. As Caroline Moser concluded, the introduction into longitudinal research of concepts such as 'collective well-being' requires a shift in focus from individualistic 'getters-out of poverty' to a focus on 'collective activists' challenging structural power to achieve institutional change for local level communities – heterogeneous in terms of poverty levels.

ii. Longitudinal research design and analysis issues

The unit of analysis

The majority of longitudinal research projects in LDCs use the household as the unit of analysis (although most longitudinal surveys in industrialised countries track individuals rather than households); yet there is considerable diversity over and above this. Thus while Deepa Narayan argued for a focus on the individual in tracking who gets out of poverty, other such as Chris Scott showed how his longitudinal panel data research in Chile simultaneously used a number of units of analysis including farms, household heads, households (the core panel) and communities. In this case the movement of assets, rather than income, was used to measure change. Jeanine Anderson used the term house (as in the house of Windsor) to identify intergenerational structures that included founding parents and descendants. In Rio, Brazil, Janice Perlman used the individual and the community as two units of analysis. Finally, Mike Thies and Samuel Adenekan both mentioned tracking house buildings in Kaduna, Nigeria as a particular asset whose changing structure reflected shifting levels of well-being.

Representativeness

One of the key challenges specific to longitudinal research relates to bridging the time-gap between research periods as well as between quantitative and qualitative research. Of particular importance is the issue of 'representativeness' highlighted by contrasting discipline perspectives. While some questioned the relevance of results from small-scale studies, others (mostly anthropologists) argued that small-scale samples, particularly case studies, are critical to document the complexity of daily life that eludes quantitative surveys. These can be effective in testing broader propositions although they are not designed to be representative at the national level. Others pointed out that panel or cohort studies that are not nationally representative, but are representative of a particular group or community, can be extremely useful. For example, repeat community panel data sets in exactly the same spatially defined area ensure different data is obtained through the use of three methodological tools:

- Household survey data, providing information about specific households.
- Community survey, focusing more on social changes at an aggregate level.
- Intra-household open-ended questionnaires, providing very rich qualitative data.

Finally, it was suggested that it may be possible to retrofit non-random samples to other, random, data.

Sample sizes ultimately relate to cost; a nationally representative sample can simply be too expensive, and therefore it may be necessary to 'maximize randomness' while minimizing cost. The identification of so-called 'sentinel site' sampling – purposely selecting sites with a poverty focus – provides an example that addresses both representativeness and costing simultaneously. Deepa Narayan, for instance, identified the potential of selecting high growth / low growth areas to provide the comparative basis for longitudinal research.

Attrition

Almost all workshop participants addressed the issue of attrition, both generally, and more importantly as an issue affecting both ends of the spectrum (individuals moving out of the community either because they moved out of poverty, or because they fell further into it). Even where no attrition occurs aging is always a problem, with the need to 'top up' panel data sets. However, as Bob Baulch commented, rates of attrition in panel data from LDCs can vary from 6 percent to 50 percent of households between adjacent rounds. Attrition also tends to be more of a problem in an urban context given greater levels of mobility. As attrition reduces the number of households tracked over time, it reduces statistical precision, as well as losing a potentially crucial part of the overall mobility story. If attrition is non-random – and this must be tested for on a survey by survey basis – it will cause simple statistical analysis of panel data to be biased. More complex methods of statistical and econometric analysis (using corrections for sample selectivity) are required.

The *costs* of tracking, and the associated need to identify who to track, and where, were of particular concern. Janice Perlman's challenging efforts to track her original sample in Rio took a year and an half. She created student teams to find the 262 individuals eventually located in this process ands relied heavily on the 'solidarity of the *favelas'* to reach them.

Suggested solutions to reduce the problem of attrition included using common ID codes for households in different survey waves, recording households' exact position through GPS, and collecting details of household networks of family and friends in the first round of a survey, who can help in tracking (the close ties of people within certain marginal communities were often helpful), developing

clear tracking protocols, including deciding who to track when they move, and providing incentives for households to continue participating households and for interviewers to track movers. Examples of such incentives include holding an annual birthday party (for children in a South African birth cohort study), establishing a free phone-in line to record moves, and appointing well-known and respected individuals as site monitors/community gatekeepers to record significant events, as well as where people moved to.

Recall bias and associated measurement error

There is a fundamental bias problem in retrospective research. Even data on births and deaths looks different when based on recall rather than on present recording. Various techniques were suggested including calendars of events, as well as asking the same question in several different ways to 'triangulate' responses. For example, 'How many days of work did you miss due to illness?', 'How much did you spend on health care?'. The use of life histories was also identified as a means of reducing recall bias, as well as group interviews with other household members present to help 'jog' each others' memories and provide some 'triangulation' and corroboration of events.

Retrofitting

Is it possible to retrofit research methodologies to incorporate new language, terms, issues and methodologies (usually qualitative or participatory) into longitudinal data sets? On the one hand the same language can be used in new rounds of surveys and interviews, on the other hand updating language may be considered more appropriate, even though there is a loss of continuity. Along with this, relevant concepts have also changed, and new issues emerged – such as democracy and social capital, as well as experiences of violence and HIV/AIDS. Changes in the political context within which longitudinal research is undertaken can also influence the research context as variously described by Chris Scott and Janice Perlman.

Opinions varied on the issue of retrofitting; some argued that it is not possible because without a time sequence (more than one point in time), it is impossible to establish any idea of cause and effect; from this perspective, the opportunities for changing and adding to the methodology are limited. Others, however, argued that since the objective of longitudinal research is to monitor change, it is essential to address new phenomena if they arise. Consequently, research should reflect reality, and the way reality changes.

One strategy for this was to design a methodology with specific core modules of research, and to insert other 'flexible' modules at later visits in order to incorporate and reflect new issues as they emerge. Another strategy for retrofitting was the use of a sub-sample to address different issues at different stages of research, thus allowing for change.

Of particular interest, given the increased popularity of participatory methodologies, is the issue of unit of research for analysis. As Jeremy Holland described, PUA focus groups discussions provide the opportunity for an important process of refining of perceptions to reach a consensus about reality, yet there are tensions between research results based on the focus group as against the household. In this respect Caroline Moser raised the issue of representativeness of participatory methodologies. Does the fact that the World Bank 'Voices of the poor' study included 40,000 men and women make it more representative than a participatory study with a small universe?

Causality

What do you have to show to *prove* causality? Moreover, will qualitative data ever be convincing? Correlation does not imply causality; while it is difficult to prove causality, it may be possible to identify strong pointers. Trudy Harpham produced the following checklist to help decide whether something is cause or effect:

- Eliminate change through sampling.
- Prove the strength of association between two things.
- Postulate a mechanism (otherwise known as 'theory').
- Consistency with other studies.
- Prove the time sequence.

Causality models were perceived as bearing little relation to daily-lived reality; for example, the poor themselves may list 60 causes of one issue. For this reason there was considerable concern to identify the linkage *mechanisms* between policy and the lives of respondents.

The macro-micro linkages

A key element of the causality debate relates to the need for analysis of both macro and micro levels, as a means of effectively linking the two. It is also necessary to take into account the time-lags, or 'slow accumulation', between policy implementation, and the ensuing repercussions for communities or individuals. This is one of the advantages of

longitudinal research–since research over shorter time periods cannot capture such long-term processes.

A number of strategies for benchmarking the linkages between macro and micro change to individual lives (context versus detail) were proposed. This included plotting time-lines of major social, political and economic changes, as well as mapping policy changes, and comparing these with what people reported in their life histories to see the 'effects of externalities'. This provides an example of the need to 'make sense of life histories' identified by Janice Perlman. For example, health problems associated with dirty water might decline some time after the installation of sewerage systems. Comparisons with other communities that experienced different policy interventions also provide a useful technique. Mixing data on large-scale events (such as timing the occurrence of natural disasters or political changes) with lived experience also allows for crosschecking to reduce recall bias. As with smaller-scale issues, relying on respondents' perceptions and recall of large-scale policy events without cross-checking can be problematic; people may remember vividly the day they got electricity, but may have confused knowledge about the timing or management of particular programs.

Mixing qualitative and quantitative methods and data

Closely related to the issue of macro and micro linkages is the question of how to incorporate both quantitative and qualitative methods and data. The limitations of qualitative methods were identified as time-consuming, intensive, with their small sample unrepresentative. On the other hand, the potential advantages of qualitative methods relate to their capacity to document the complexity of daily life, which eludes quantitative surveys, and brings out the richness of intra-household dimensions.

There was a general consensus that the two kinds of methodologies provide complementary sources of information, and should be used in tandem to link 'smaller stories to larger scale ones'. Qualitative data can be used to help explain quantitative findings, and vice versa. Consequently there were many recommendations that qualitative and/or participatory elements should be embedded within larger surveys, or integrated in other ways. An effective example comes from Vietnam where the poverty assessment included both quantitative household surveys and qualitative information from the participatory poverty assessment. This requires government support from the outset with ownership built through the process, considerable time (three years) plus associated donor support.

Practical issues emerge when combining qualitative methods with more traditional quantitative ones. For instance, in a study mixing survey data with respondents' *perceptions*, it is crucial to ask about perceptions prior to administering the survey. Using different methods also means that triangulation, with different interpretations of data sometimes emerging. One study found that there was a significant difference between the researchers' interpretation of the survey data as to whether people moved in and out of poverty, and what the people themselves perceived had happened.

Methodologies relating to longitudinal perceptions of change identified the importance of including different reference points. For example people's perceptions may alter in relation to those of their children. In addition they may differ in terms of different benchmarks – i.e. against others in their community, their country or against other global reference points.

3. Conclusions: broader poverty research issues for longitudinal research

i. Ethical issues

While ethics are always important in social science research, they are even more acute in longitudinal studies. Participation over such a long time frame can be a burden for respondents. The issue of informed consent is very important here, as people may not understand what they are letting themselves in for. (In contrast to this, Janice Perlman found that, people were honoured that someone 'wanted to learn about their lives', and were hurt if not selected in the random sample – to the point where a 'pseudo-questionnaire' was created to appease them). In studies considering using GPS tracking technology, there are obvious concerns with surveillance, as Jo Beall identified. In most research, there are no associated interventions to help reduce poverty: researchers simply 'watch' the poverty of respondents over time. While the issues raised by respondents are often immediate concerns, the research is long-term; 'people die while researchers are still at the stage of deciding how to distribute their findings to policy-makers'.

In certain instances, researchers were met with mistrust and suspicion. Thus a telling comment from a respondent was the following: '*We're over-researched and underdeveloped; when researchers come they are thin, and*

when they return later, they are nice and fat, while we remain the same as always.' In other contexts, as Barbara Harriss-White commented that longitudinal researchers 'become better known to less and less people'.

Despite identifying ethics as being of major concern, the workshop revealed few practical suggestions as to how to address the issue. One innovative approach used three components to attempt to address the high costs to respondents, including explaining how the research should be useful in the long-term, giving back the results of previous research, and, as Trudy Harpham described, the preparation of a 'Very Useful Information Package'. In Rio, Janice Perlman identified respondents by their first names only so as to protect their anonymity, but this led to severe problems when trying to track people years or even decades later.

Finally the issue of stress experienced by the researchers themselves was raised. Phakama Mholongo described the exhausting experience of trying to track households particularly in contexts with high levels of violence, where people who have previously been within the study had been killed in the interval between the implementation of the panel studies.

ii. Acknowledge the contribution of combined methodologies

Workshop participants called for the need to acknowledge representativeness and causality in qualitative methodologies and to move forward. In this context an apt summary is provided by the truism that 'smaller samples get bigger pictures'. Many emphasized that the key is to develop new frameworks which integrate both traditional quantitative methodologies as well as qualitative and participatory ones, as together they contribute much to the study of poverty dynamics. Increasingly mixed methodologies are being adopted that use triangulation as an important way of crosschecking the validity of different types of data.

The workshop showed how longitudinal research highlights the contradictions between policymakers' desire for 'quick fix' answers and the long-term nature of many poverty and mobility related issues. Another plea was to resist the temptation for enormous 'ask everything' studies that result in a large amount of unused data. Finally, the workshop concluded that 'evidence-based policy' makes longitudinal data even more critical than ever before.

Some Reflections on the Use of Household Panel Data for the Microeconomic Analysis of Poverty

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1. Introduction

The methodological issues relating to panel data constitute a huge topic, or rather a huge set of topics. There are distinct literatures by statisticians concerned with the collection of panel data which focus on the design and implementation of surveys (Kaspryzk et al. 1989) and a rapidly growing stream of econometrics publications concerned with the analysis of panel data (Baltagi 2001; Greene 2003).

These informal notes address six questions:

- What are the different types of panel data?
- Why are panel data of interest to economists and policy makers concerned with poverty?
- Does the use of household panel data by economists imply that the local or community context is ignored?
- What factors determine the choice of methodology for the collection of household panel data?
- What were the main methodological challenges arising from a panel study of poor rural households in Chile carried out between 1968 and 1986, and how were these challenges addressed?
- What are some of the new directions and opportunities for using panel data in developing countries to support policy analysis?

2. What are panel data?

A panel data set combines time series and cross sections. It involves multiple observations over time of the 'same' units, such as individuals, households, firms or public service delivery units, e.g. schools, health clinics. These notes concentrate on households, although the Chilean case-study included many households which were also firms, i.e. farm-households.

Several types of panel data set are distinguished in the literature. In *balanced panels*, the units observed in the first period are observed in all subsequent periods. The sample size remains constant and there is no exit from or entry into the sample. In *unbalanced panels*, some units exit the sample over time and are not replaced, i.e. sample attrition is permitted. A special case of an unbalanced panel is that in Palanpur, India where the size of the panel increased over time as a result of households partitioning. New households created by sons who on marriage formed separate domestic units within the village, were brought into the panel (Lanjouw and Stern 1998).

In r*otating panels*, units which exit the sample over time following migration or death of all the members are replaced by new households which are selected to enter the panel. The sample size remains constant over time. In the absence of genuine longitudinal data, age cohorts (of individuals or firms) can be tracked in repeated cross-sections and economic relationships estimated based on cohort means rather than individual observations (Deaton 1997). Such *pseudo-panels* of individuals have several advantages over true panels, such as larger (and possibly more representative) sample size, absence of attrition problems, data availability over longer periods of time and the opportunity for combining data from different surveys on different households, e.g. mean cohort consumption from an expenditure survey can be combined with mean cohort income from an earnings survey to examine savings behaviour. However, pseudo-panels of households where the cohorts are defined by the age of the household head may become distorted if the head of a given household changes over time as a result of divorce, remarriage or parents moving to live with their children. So, while data from pseudo-panels can be used to address some longitudinal questions, such as tracking labour earnings over the life-cycle, they cannot be used to explore others, such as mapping the extent and nature of income dynamics.

3. Why are panel data of interest to economists concerned with poverty?

'Poverty' economists use household panel data for at least four purposes. Firstly, such data are essential for enriching the *measurement of poverty.* Panel data are required to distinguish between chronic and transient poverty. Recent research suggests much (consumption) poverty is transient rather than chronic, although transient poverty can be measured in different ways (Jalan and Ravallion 2000; McCullough and Baulch 2000). This finding has important implications for policy design.

Secondly, panel data are essential for analysing p*overty dynamics* which investigates the determinants of income mobility (direction and magnitude) in the short- and long-run. Isolating the effects of different types of shocks on household welfare has policy relevance for identifying vulnerable groups and designing safety nets.

Thirdly, panel data are a useful complement to repeated cross-sections in tracking changes in poverty over time, i.e. *poverty monitoring*. Do the same poverty indices calculated from the repeated cross-sections and from the panel move in the same direction and by the same magnitude over time? If not, why not?

Finally, panel data are being increasingly used for *poverty impact evaluation* which may be defined as studies aimed at assessing the impact of specific policy or programme interventions on the poor. There are several types of such evaluation studies. *Ex ante microsimulation exercises* use panel data to model the process of income generation over time which in turn permits the effects of selected policies on poverty incidence to be estimated (McCullough and Baulch 2000). *Ex post econometric analyses* exploit an important property of panel data which is to allow for the control of unobserved heterogeneity across the units of observation. These analyses purge both treatment and control groups of the effects of unmeasured (and possibly un-measurable) household-specific fixed effects, the presence of which might otherwise bias the results of the evaluation (Baker 2000). This feature is discussed further below.

4. Are household panel data only used by economists, and does the use of such data by economists imply that the local or community context is ignored?

The workshop briefing paper suggests that "panel studies (are) conducted primarily by economists with repeat household surveys", while "longitudinal studies (are) conducted by anthropologists and sociologists involving repeat studies to the same urban community over the past 10 to 30 years". This implies i) a certain matching of disciplines to methods, and ii) that the analysis of (national) household panels by economists may be disembodied from any local context.

As regards i), this methodological contrast between disciplinary practices is generally valid, but it may be noted that one of the best known panel studies by development economists is of a single Indian village (Palanpur) over 50 years (Lanjouw and Stern 1998). This study draws on both household panels and a wide range of qualitative information about the community. Furthermore, sociologists interested in urban labour markets have used household panels (Scott 1994).

With respect to ii), most microeconomists working in the development field would acknowledge, if not explicitly stress the embeddedness of individual households in a wider but still local context for two reasons: one statistical, the other analytical. Most households are selected for interview in a multi-stage survey design. So, the initial cross-section of a planned panel of urban households might be selected in two stages. Firstly, a stratified random sample of N urban clusters is drawn from a sample frame provided by the enumeration areas of the last Population Census. The strata could be regions, urban areas classified by population size (large, medium, small), or a simple separation of the capital city from other cities and towns. Secondly, a random sample of n households is chosen in each cluster. Generally, stratification increases the precision of sample estimates (because these will depend only on within-strata variance), while clustering reduces the precision of sample estimates (because interviewing several households in the same cluster produces less variation in information than interviewing several households in different clusters). In any case, it is important to allow for survey design when calculating standard errors in econometric analysis (Howes and Lanjou 1997; Deaton 1997).

The analytical reason for acknowledging the importance of household embeddedness in the local institutional framework derives from the large body of evidence showing how household-level outcomes are affected by community or neighbourhood characteristics. Empirical studies have demonstrated the significant role of kinship and friendship networks in supplying information, providing insurance and giving informal access to credit. 'Social capital' is an attribute of communities or localities, but it can be (and has been) included as an explanatory variable in econometric analysis using household data (Narayan and Pritchett 1999).

In closing this section of the paper, it should be noted that the reference to 'repeat household surveys' in the workshop briefing paper should not be taken to mean that an identical survey instrument has to be used in each wave of a panel study, if the primary purpose is poverty monitoring. Furthermore, other units of observation (than households)

may be able to provide valuable quantitative information for economists over time which can be combined with a household panel. Both these points are explored further in 7. below.

5. What factors determine the choice of methodology for the collection of household panel data?

The term 'methodology' is used here in a broad sense to include the choice, design, combination and sequencing of field-work instruments, and not in the narrow technical sense of econometric methodology. Clearly the broad and narrow senses are linked.

What is an appropriate methodology depends firstly on the specific questions being asked:

- *Changes in asset ownership?* If only 'Yes/No' answers required, e.g. consumer durables, fairly straightforward and can choose 'large' sample. If attempting to track changes in (farm-) household's land area and/or land quality, more problematic. Need for plot visits, so smaller sample or longer field-work and higher cost.
- *Changes in average consumption per adult equivalent?* Selection of reference periods for different types of consumption (lumpy expenditures – 1 year, non-lumpy – one month?) and choice between recall method and diaries for non-lumpy expenditures. If diary method, use single household diary kept by household head or distribute individual diaries to each adult member of the household? See discussion of intra-household units in 6. below.
- *Changes in the distribution of consumption per adult equivalent within the household?* Requires measurement of actual food intake by each member of the household. More time consuming, so smaller sample or more costly survey.
- *Changes in children's nutritional status?* Taking detailed anthropometric measurements of each child is time-consuming, so may reduce size of sample or imply a more costly survey.
- *Changes in time use by different household members?* Very time consuming, but addresses a central feature of poor women's welfare, e.g. time spent collecting water and (wood) fuel. May imply a smaller sample or more costly survey. Use individual diaries with regular monitoring.

There is a need to maintain consistency in these methodological choices over successive waves of the panel as should also be the case in repeated cross-sections.

Defining an appropriate methodology also depends on:

- The length of time which has elapsed since the last wave, i.e. six months (as in studies of seasonal variation in consumption (Dercon and Krishnan 2000)), one year or over ten years?
- The duration of and budget for the field-work: once sample size is given, research questions articulated and the budget set, then the prime methodological goal should be to minimise measurement error for this level of expenditure. This may involve building in consistency checks in the questionnaire(s), reviewing completed questionnaires carefully in the field to allow for re-visits to correct errors and collect missing information, and identifying opportunities to cross-check selected survey information with administrative data, e.g. primary school enrolment.
- The quality of field-workers, i.e. training and experience.
- Contextual factors, e.g. existence of a previous study to serve as baseline (what questions were asked? How were questions phrased?), political situation at national, regional and local levels (any meeting at village level with outsiders present – let alone a focus group or PPA – is a political event).

6. A selective review of methodological issues arising from a Chilean panel of small farm households, 1968-1986

By way of background, the baseline survey for this study was conducted in 1968 in nine 'representative' small farm communities throughout Chile with 25 households randomly selected in each community (n=225). Two polar case-study households ('rich', 'poor') were also interviewed in greater (quantitative) depth per community. These case-study households were sometimes in the community sub-sample and sometimes not. The re-survey of eight communities was undertaken over four months in 1986 with the assistance of an NGO. The re-survey was planned as a pilot study to assess the feasibility/desirability of a longer and more costly follow-up exercise. For further details, see Scott (2000).

The main research questions were:

How had the size distribution of farms and land ownership in the panel changed since 1968?

- Had any households benefited from the land reforms?

- Were there any changes in the pattern of land use?
- How had the level/composition of household income changed over the period?
- How had asset ownership changed?
- How had factor markets for land, labour and capital evolved in each community?
- In the light of answers to the above, could a typology of rural communities be suggested which was relevant to formulating a strategy of rural development for small farmers in Chile?

The major methodological issues included the following:

i. What were [and should have been] the units of observation?

- Agricultural properties, i.e. land owned by baseline households. Problem of fuzzy property rights, lack of titles and land held *en sucesion*.
- Farms, i.e. land managed by baseline households. Much renting in/out of land among low income households.
- [Plots, i.e. sub-farm units of account for agricultural inputs and outputs].
- Households, i.e. domestic group living under same roof.
    - When is a household the *same* household ?
    - Distinction between 'core panel' (≡ households where either the 1968 household head and/or spouse were still resident [n=113]) and 'residual panel' (≡ households occupying the same dwelling as 1968 household and usually consisting of relatives of 1968 household head [n=42]).
- Farms, i.e. land managed by baseline households. Much renting in/out of land among low income households.
- Household heads (self-declared in 1968).
- [Intra-household units: incomplete income pooling and incomplete managerial control by household heads over resource use gave rise to sub-household units in both consumption, e.g. wife retains independent control over earnings from (illicit) sale of alcohol, and production, e.g. adult sons resident in the household sign tenancy contracts to which the household head is not a party].
- Communities.

ii. How to bridge the time gap between the baseline (1968) and follow-up (1986) surveys?

Three modules were inserted into the 1986 household questionnaire to address this issue:

- *Demographic history module*: covered births, deaths and migration from/into household.
- *Land ownership and farm size (LOFS) history module*: allowed check on land owned and farm size in 1968. Covered all land transactions by the household, including purchases/sales, land inherited from/ bequeathed to others, land ceded by/to others, land received under the land reforms, land rented out/in and land lost in natural disasters (floods). Also tracked (imperfectly) changes in property rights status of particular plots between 1968 and 1986.
- *Household economic history module (HEHM)*: sought to cover changes in land use, 'marketability' of main farm outputs (% of output sold), use of modern inputs (fertiliser herbicide, etc), access to credit and agricultural extension, changes in the composition of money income, accumulation/depletion of assets, level of household indebtedness and experience of shocks to the household, e.g. natural disasters, illness, accidents and other major life-events.

All three modules were subject to measurement error arising from difficulties of recall. Errors of dating were mitigated by the existence of well defined and widely known national and community-specific historic markers, e.g. election of UP government in 1970, Pinochet's military coup in 1973 and start of most recent drought cycle in Norte Chico in 1982.

The LOFS worked reasonably well and triggered an unexpected line of enquiry concerning gender-differentiated processes of land concentration over time. The results of the HEHM were mixed. It was the most complex module and was placed at the end of the questionnaire. This meant it was applied at the end of the interview, when both interviewer/respondent were tired. During the field-work, it became clear that interviewers could have benefited from additional training in using it. Nevertheless, it was possible to use the weaker data to create discrete rather than continuous variables for hypothesis testing, e.g. access to different credit sources used (with Yes/No answers) rather than amounts of credit obtained to test 'graduation hypothesis'.

The HEHM data was used in two other ways. Firstly, information on the accumulation/depletion of assets provided a check on whether households falling into poverty in 1986 on the basis of current income had done so as a result of variations in transitory or permanent income. If there was evidence in the HEHM of recent accumulation (such as purchases of consumer durables and/or capital expenditures on the dwelling), then poverty was considered transient. Secondly, the HEHM provided information on shocks to households and individuals. This information was included in the cross-section income function for 1986 to see if such shocks had long-term effects. There was some evidence that they did.

iii. What was the portfolio of field-work instruments used in 1986?

Four instruments were used:

- *Tracer sheet for 1968 household heads and farms*: this was designed to assemble information on the 1986 occupational status of all 1968 household heads and where the latter had died, migrated or were economically inactive in 1986, to identify who controlled the land managed by each 1968 household.
- *Household questionnaire*: this was applied to all panel households. It contained the three modules described in ii) above as well as collecting current demographic information. It also included a farm management module (quantity/value of crop, livestock and other farm outputs, use of inputs, employment of household members on- and off-farm, other sources of household income) and an inventory of household assets and liabilities.
- *'Augmented' household questionnaire*: this was applied to the 1968 case-study households. It consisted of the household questionnaire supplemented by a semi-structured life-history discussion which generated a rich amount of qualitative data. I conducted all interviews with case-study households.
- *Community check list*: this document listed the topics on which information should be collected at the community level. It included questions relating to major historical events in the locality since 1968 such as natural disasters, the impact of the land reform and counter-reform, changes in economic and social infrastructure (roads, schools, health clinics), changes in local organisations (cooperatives, credit societies) and in the role of government agencies, technical innovations in agriculture and trends in crop yields and the pattern of land use. The check list also sought information on the extent and nature of local factor markets (for land, labour, draught animals, irrigation water and credit) and marketing channels.

iv. Was there attritional bias?

Households which disappeared were not replaced in the 1986 sample, so the panel was unbalanced. The position of exit households was checked in the 1968 income distribution and they appeared to be randomly distributed.

7. New directions and opportunities for using panel data in developing countries to support policy analysis

I consider three areas. Firstly, the adoption by the World Bank and IMF of PRSPs as the framework for lending not only to HIPCs, but also to all IDA countries has increased the importance of *poverty monitoring*. All such countries must submit a poverty progress report each year to Washington which will require instruments to track different dimensions of poverty annually. These instruments are likely to include surveys which will generally be repeated cross-sections. However, there may be a case for launching a household panel the members of which are drawn exclusively from the lower end of the income distribution defined as in the bottom quartile or with incomes less than 150% of the absolute poverty line. The instruments applied to this panel could be varied over time to allow for more frequent tracking, or a larger panel, or just to keep costs down. One possible survey calendar might be as follows:

Year 1: Apply nationally a 'heavy' (but hopefully not blunt) instrument such as a household budget survey or LSMS questionnaire to provide cross-section data. This instrument should include demographic and asset modules.

Year 2: Process the data from year 1 and calculate consumption per adult equivalent per household. Identify an absolute poverty line and measure consumption poverty in the overall sample according to the standard indices. Regress consumption per adult equivalent per household on a set of asset and demographic variables using data from the same source. This provides a vector of coefficients which maps from household assets and demographics into consumption in year 1. Then, select the poorest 25% of households ($n \approx 1{,}500$) as the first wave of a panel and calculate the standard poverty indices in this sub-sample.

Year 3: Apply to the panel a 'light' instrument such as the Core Welfare Indicators Questionnaire (CWIQ) which should contain the same demographic and asset modules as the HBS/LSMS questionnaire[1]. Use these asset and demographic data from the CWIQ together with the vector of coefficients derived in year 2 to estimate consumption per adult equivalent in the panel in year 3[2]. Update the absolute poverty line (by allowing for changes in prices) and measure consumption poverty in the sample according to the standard indices. This allows poverty to be tracked in the panel between years 1 and 3, i.e. waves 1 and 2.

Year 5: repeat the activities of year 1 by applying a HBS/LSMS questionnaire to a new cross-section in order to generate an updated vector of coefficients for use in year 7. Apply the same instrument to the panel to create wave 3.

Secondly, household panels can be used to undertake more rigorous *assessments of the impact* of specific policy or programme interventions on the poor. In this case, it is necessary to create a matched panel to conduct the evaluation. In order to do this, a random sample of households is selected to include both beneficiaries and non-beneficiaries of the programme. Then, each beneficiary household is matched with a control household from among the non-beneficiaries via propensity score matching. The treatment and control groups together make up a panel sample to be followed up in subsequent waves. Programme impact may be measured in several ways, such as 'differences-in-differences' (Baker 2000).

Thirdly, there may be opportunities for widening and deepening poverty analysis by *combining panels with different units of observation*. Consider the current debate about how to improve the efficiency of and quality of service provided by public schools and health clinics in developing countries. A useful contribution to this debate would be to explain why efficiency (however measured) and service quality increases faster in some schools than in others. Answering this question requires information from a panel of schools.

However, service quality affects both the demand for as well as the supply of schooling. It is often argued that low quality is a major reason for low school enrolment, particularly in rural areas. Thus, it would be interesting to isolate the effects of changes in household characteristics from the effects of changes in school characteristics in explaining why children drop out of and into school. Answering this question will require a matched school and household panel which includes both attending (enrolled) and non-attending (non-enrolled) children in the relevant catchment areas. Undertaking such a study could provide an incentive to improve the management information system of the Ministry of Education at local and regional levels.

Another public policy issue concerns the impact of public sector reforms on employment. It is often argued that privatisation of state enterprises and a reduction in the public sector payroll will precipitate increases in poverty and inequality, at least in the short run. In order to explore this in greater depth it would be interesting to match a panel of public agencies in line for privatisation or staff reductions with a panel of agency employees some of whom are subsequently made redundant. This might provide answers to the following questions:

- Which staff are made redundant first and why?
- How many workers who lose their public sector jobs find alternative employment within six months, one year or two years?
- Why do some dismissed workers find new jobs quicker than others?
- Are those workers who keep their public sector jobs more productive (however measured) than before?

Since many public sector reform programmes are implemented over several years, different cohorts in the employee panel could be identified according to the date of redundancy. This would allow for interesting inter-cohort comparisons within the overall panel. Thus, it might be that those dismissed first suffered the greatest shock to household consumption in the short-run because of the limited time available for finding alterative employment before losing their jobs. However, in the medium run it could be that a higher proportion of this cohort had found new jobs and/or were employed in more productive jobs as compared to members of cohorts dismissed later.

A similar exercise could be attempted with a panel of large or medium-sized private firms in urban areas. Small firms, most of which are in the informal sector, are unlikely to be included in any sample frame of establishments.

8. Conclusions

Household panel data have an important role to play in any poverty information system as they can be used to address questions which

cannot be answered with repeated cross-sections. Economists use panel data to enrich the measurement of poverty, to analyse poverty dynamics, to undertake poverty monitoring and to undertake poverty impact evaluation. Several factors affect the choice of methodology for collecting panel data. These include the questions being asked, the length of time between waves, the size of the budget for field-work, the quality of field-workers and contextual factors. In undertaking a panel study of small farm households in Chile, the main methodological challenges concerned the choice of units of observation and the elaboration of instruments to bridge the long interval between the baseline (1968) and follow-up (1986) surveys.

Given the priority assigned to poverty monitoring in PRSP countries, there may be a case for initiating household panels whose members are drawn exclusively from the lower end of the (urban?) income distribution. The instruments applied to this panel could be varied over time to allow for more frequent tracking, or a larger panel, or just to keep costs down. Growing pressure from both donors and domestic stakeholders to hold policy-makers to account is likely to lead to an increased use of household panels to undertake more rigorous evaluations of the impact of specific programmes on the poor. Finally, there may be opportunities for widening and deepening poverty analysis by combining panels with different units of observation. A matched school and household panel could provide a better understanding of changes in enrolment rates, drop out rates, progression rates and academic achievement rates. A matched panel of public agencies and their employees could be used to examine the dynamic impact of public sector reforms on the urban labour market.

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Happiness and Hardship: Lessons from Panel Data on Mobility and Subjective Well Being in Peru and Russia

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1. Introduction

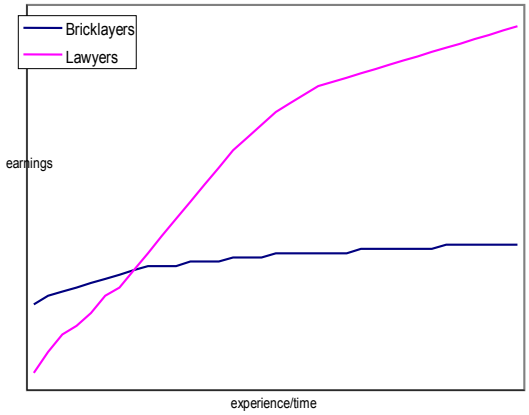
This paper summarizes a much longer body of published research on income mobility, subjective well being, and the linkages between the two[3]. It is an attempt to draw out the broader lessons – as well as the challenges – that the experience provides for longitudinal research on poverty. The research is based on two themes. The first is that an informed discussion of the implications of inequality must focus on the dynamics of inequality as well as on the distribution of income at a particular point in time. The analysis of income mobility, for example, helps capture the distribution of opportunities within societies and across generations.

The second theme is that the distributions of both income and opportunity have significant effects on individual's perceptions of their well being, and that those perceptions in turn affect the economic and political choices that individuals make. Both of these themes are particularly relevant to the current developing country context, in which many governments are introducing market reforms and/or political liberalization while also contending with high levels of poverty and inequality. Not surprisingly, our exploration of these themes required new and new kinds of data.

2. Inequality

Most of the discussion of income inequality focuses on static measures of inequality, such as the Gini coefficient or the 90/10 ratio. Yet these measures are snap shots of societies at a particular point of time. They do not tell us much about who is moving in and out of poverty; about people's earnings over their life cycles; or about the intergenerational transmission of opportunities, for example. If one took the Gini of a hypothetical society of lawyers and bricklayers, for example, early in the earnings cycle, the policy conclusion could well be that bricklayers should redistribute their income to lawyers. In contrast, if one looks at the earnings curves of the two groups over the lifetime, then lawyers clearly earn more income, and any redistribution that was deemed necessary would go in the other direction (see Figure 1).

Figure 1. Earnings Curves of Lawyers vs. Bricklayers



Focusing on income mobility allows us to better gauge how people fare over a longer period of time, and to get a better sense of how equally opportunities are shared in particular societies. Yet measuring mobility requires panel data, which are scarce, particularly for developing economies. For this study, we were able to rely on panel data for Peru and Russia. For Peru, we collaborated in the gathering of the data with the Instituto Cuanto in Lima, which has conducted a nationally representative household survey – the ENNIV – since 1991, and for Russia, we relied on the Russian Longitudinal Monitoring Survey (RLMS), which has been conducted annually since 1995[4].

3. Subjective well being

Public perceptions of well being, meanwhile, are linked to individuals' attitudes about inequality and their perceived opportunities for advancement, as well as those for their children. Over a century ago DeTocqueville posited that Americans' higher tolerance for inequality compared to those of Europeans was explained by higher levels of social mobility in the United States. More recently, Benabou and Ok (1998) used panel data from the U.S. Panel Study of Income Dynamics (PSID) to show that even though most Americans are well below mean income, they do not vote for redistribution because the majority are convinced that they will be above it in the future (even though that is not a realistic assumption for most of them). Hirschmann (1973), in his well known tunnel hypothesis, suggests that inequality in the

development process is analogous to a traffic jam in a tunnel. Initial uneven movement (inequality) as one lane starts moving at first provides hope, as it signals where the rest of the lanes might be going in the future. Yet if only one lane keeps moving and the others remain jammed, then eventually the drivers in the stalled lanes get frustrated and resort to radical behaviour such as jumping the median strip.

Our research was an exploratory attempt to compare individual's perceptions of their past progress and their attitudes about future opportunity with objective mobility trends. We posited that people's tolerance for inequality would be affected by their perceptions of future opportunities, as in DeTocqueville and in Benabou and Ok, as well as by the information that they had about the progress and income gains of others in their societies, as in Hirschmann. In order to address these questions, we went back to our panel data for Peru and implemented a new questionnaire on perceptions to a 500 person sub-set of the panel. We also found some comparable, if less extensive, perceptions questions in the RLMS.

Finally, we made some benchmark comparisons to ensure that our perceptions data were at least comparable to those for other developing countries, and also that the developing country data did not differ in any fundamental or structural way from that for the developed economies. We analysed perceptions and broader subjective well being questions from the region-wide *Latinobarometro* data set (which is a cross section and not a panel)[5]. We then compared our findings to the analyses of subjective well being that have been done for the United States and Europe (see Graham 2002, and Table 1 for summary statistics from the data sets).

4. Research results

Our results on mobility patterns were surprising. While we expected that the developing economies would have less mobility than a country like the United States, which is known for its high levels of mobility, our comparison of mobility rates in Peru and the United States over a ten year period yielded significantly more income mobility in Peru than in the United States. For the U.S., we relied on adjusted family income data provided by Michel et al. (1999) for 1979-89. For Peru we use the subset of our panel that we re-interviewed for our perceptions survey (500 observations) (see Table 2). This comparison actually underestimates the amount of mobility in Peru, as the Peru data is in expenditure, which fluctuates less than income. The U.S. data is in adjusted family income. The Russia data – which is income – suggests that there is even more income mobility in Russia than in Peru over a shorter time period. Among other things, this reflects the dramatic degree of structural change – as well as a major devaluation – in Russia during the period. A closer look at the data yields two notable trends. The first is that there are more rags to riches stories in Peru than the U.S. – e.g. more people move from the first to the fifth quintiles in Peru than in the U.S. Second, there is a great deal of downward mobility from the fourth quintile – roughly middle class by Peruvian standards – to the poorest quintile. This suggests that there is both an unexpected amount of opportunity for upward advancement and exit from poverty, but also a high degree of vulnerability to falling into poverty for those in the middle.

We attribute the former trends to new opportunities (and stability) for the poor provided by the stabilization of hyper-inflation and the achievement of macroeconomic stability and growth. We attribute the latter to changing rewards to different education levels: while prior to the initiation of market reforms and trade and capital market liberalization, a secondary education was sufficient to achieve a stable, 'middle class' existence, often with a job in the public sector, it is now no longer enough, and rewards are going to those with higher levels of skills and education (see Behrman et al. 2001; Birdsall et al. 2001). In addition, most people in Peru – as in much of the region – lack any form of social welfare or unemployment insurance. Thus they are very vulnerable to falling into poverty if they experience a break in their income flows was negatively correlated with upward mobility (see Table 3).

Table 1. Description of Data Used

Peru, 2000

Variable	Obs	Mean	Std.Dev.	Min	Max
Age	500	53	15	18	93
Male=1	500	0.53	0.5	0	1
Equivalized Expenditure*	500	8,922	7,314	1,395	66,101
Household Size	500	5	2.2	1	14
Years of Education	500	8	4.7	0	18
Urban=1	500	0.86	0.35	0	1

*August 2000, US$ 1=Soles 3.48

Latinobarometro, 2000

Variable	Obs	Mean	Std.Dev.	Min	Max
Age	18125	38	16	16	99
Male=1	18125	0.49	0.5	0	1
Wealth Index (0=1)	18125	0.58	0.22	0	1
Socio economic Status (1-5)	18125	3.27	0.92	1	5
Years of Education	15112	9	4.3	0	16

Russia Longitudinal Monitoring Survey, 1996-1999

Variable	Obs	Mean	Std.Dev.	Min	Max
Age	2051	54	15	22	93
Male=1	2289	0.21	0.41	0	1
Equivalized Income	2289	2698	2935	22	53,724
Household Size	2289	2.9	1.5	1	12
Education Level	2043	8.4	2.3	0	12

United States General Social Survey, 1972-98

Variable	Obs	Mean	Std.Dev.	Min	Max
Age	38,116	45	17	18	89
family Income (category midpoint)	38,116	30,041	25,483	363	162,607
Household Size	38,116	2.8	1.6	1	16
Years of Education	38,116	12.4	3.2	0	20

Table 2. Relative Economic Mobility Matrices

United States, 1979-1989

	1989 Q					
1979 Q	Bottom quintile	II	III	IV	Top quintile	Total
Bottom quintile	**61**	24	9	5	1	100
II	23	**33**	28	14	3	100
III	8	25	**30**	26	11	100
IV	5	13	23	**33**	26	100
Top quintile	3	5	11	23	**59**	100
Total	100	100	100	100	100	100

Source: Mishel at al. (1999)

Peru, 1991-2000

	2000 Q					
1991 Q	Bottom quintle	II	III	IV	Top quintile	Total
Bottom quintile	**45**	25	19	6	5	100
II	25	**25**	23	14	13	100
III	16	23	**22**	20	19	100
IV	11	18	18	**32**	21	100
Top quintile	3	9	18	28	**42**	100
Total	100	100	100	100	100	100

Table 3. Peru, 2000. Mobility and Participation
(Logit Regression)

Indep. Var.	**Coeff.**	**z**
Age	0.011	1.420
Male dummy	0.016	0.070
Education	0.113	4.120
Married	-0.037	-0.160
Urban	0.680	1.930
Log equivalent income	-2.667	-9.780
Participation for economic reasons	-0.241	-2.630
Participation for non-economic reasons	0.257	2.510
Constant	21.099	9.670
N	500	
Rsq.	0.247	

Dependent Variable: Upward Mobility from 1991-2000

We also took a closer look at the determinants of upward mobility in Peru. The only significant factors determining upward mobility from 1991-2000 are years of education, urban location (significant at the 10% level), income level (those with *lower* income were more likely to have upward mobility), and participation in neighbourhood organizations for *non*-economic reasons. In contrast, participating for economic necessity reasons was negatively correlated with upward mobility (see Table 3).

We disaggregated our participation/ proxy for social capital question/variable into reasons for participating, dividing those who participate for economic necessity reasons from those who participate to make new acquaintances. The idea here is that much of what is loosely termed 'social capital' in LDCs is actually the poor participating in safety net/joint survival schemes (such as soup kitchens, etc). While these are important safety net mechanisms, they can also be poverty traps rather than the 'weak ties' kind of organizations that Mark Granovetter (1973) finds are good for upward mobility and that Robert Putnam followers believe are linked to growth. We also asked this sub-sample (500) of respondents in the panel a number of questions about their perceptions of their past progress and for their future prospects. We repeated this perceptions survey two years in a row. The most significant and surprising finding was that almost half of the respondents with the most upward mobility reported that their economic situation was negative or very negative compared to ten years prior (see Figure 2). We conducted a similar analysis for Russia, and found an even higher percentage of frustrated respondents – or frustrated achievers as we call them (Figure 3).

A closer look at these frustrated achievers (FAs) shows that they are at or about average income (and therefore not the poorest in the sample), that they are more urban and slightly older on average than non-frustrated respondents with upward mobility. There are no significant gender or education differences, meanwhile. In Peru, the FAs have less volatility in their income trajectory, as measured by the coefficient of variation, while in Russia it is higher. Finally, the FAs scored lower on a whole host of perceptions questions, such as their perceived prospects of upward mobility, and their position on a notional economic ladder. In keeping with the direction of these findings, the FAs also had a higher fear of being unemployed in the future. In addition, the Russian FAs were more likely to want to restrict the incomes of the rich, and were less satisfied with the market process and with democracy (we did not have the same questions for Peru).

In Peru the likelihood of having upward mobility and being frustrated (a frustrated achiever) is negatively related to initial income levels (see Table 4). In other words, the frustrated achievers started from lower income levels, on average, even though they are not the very poorest in the sample. This is not surprising, as thus even large percentage increases in their incomes will seem insufficient to reach the levels of wealthier groups.

Figure 2. Long term Perceived Mobility vs. 1991-00 Income Mobility

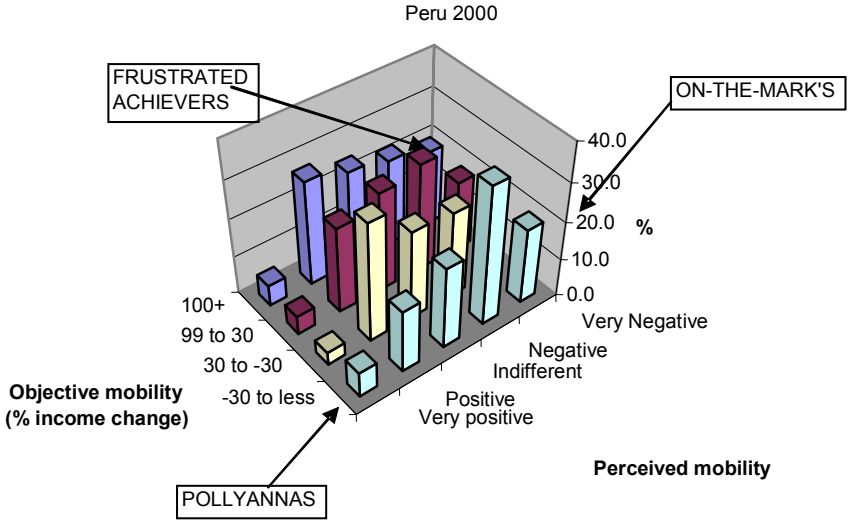


Figure 3. Perceived Past Mobility vs 1995-99 Income Mobility

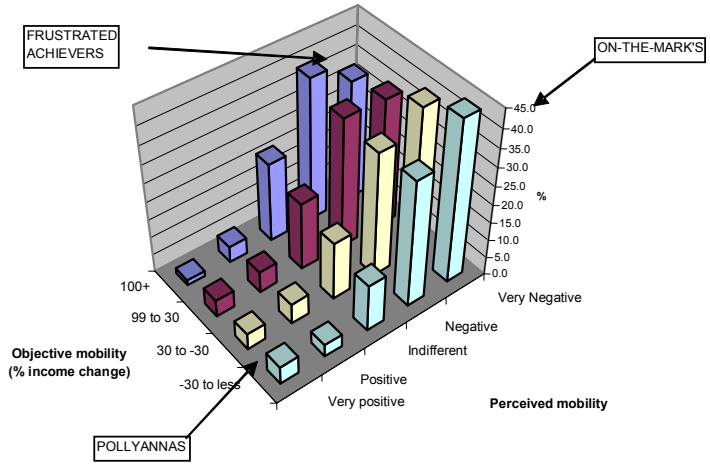


Table 4. Peru 2000. Initial Income Levels and Frustration

(Ordinary Least Squares Regression)

Indep. Var.	**1**	**2**
Age	0.025	0.025
	[3.300]	[3.290]
Male dummy	-0.012	-0.005
	[-0.050]	[-0.020]
Education	0.042	0.051
	[1.610]	[1.930]
Married	-0.207	-0.209
	[-0.890]	[-0.890]
Urban	1.495	1.349
	[3.580]	[3.350]
Log equivalence income	-1.229	…
	[-6.040]	
1991 equivalence income	…	0.000
		[-5.700]
Constant	6.437	-2.471
	[4.130]	[-4.230]
N	500	500
Rsq.	[0.097]	[0.109]

z-stats below coefficients
Dependent Variable: Frustrated Achievers in the year 2000

What explains these frustrations?[6] Relative income differences could certainly be a plausible explanation, and the FAs were more likely to score lower on the notional economic ladder in both surveys, as well as to compare their situation negatively to others in their community and their country in Peru. Both Peru and Russia have high degrees of inequality. A lack of adequate social insurance and insecurity could be another: the FAs had a higher fear of unemployment than non-frustrated achievers. Thus even though the FAs are doing well today, they perceive that there is no guarantee of stability. This is not surprising, given that both surveys were conducted in very volatile economic contexts, and the objective mobility data reveal a remarkable degree of vulnerability. Related to this, most of the FAs were at mean levels of education, while it is those with higher levels of education – at least in Latin America – that are gaining high marginal returns compared to the rest of society, while those with secondary education are seeing decreasing marginal returns compared to those with primary education (see Behrman et al. 2001).

Finally, some of these frustrations could be behaviourally driven. It is plausible that some percent of every sample will always be negative or unhappy, regardless of objective conditions. In order to explore this, or at least to see if our sample populations were significantly different from other population samples, we turned to the nascent economics and psychology literature on subjective well being. A notable finding from this literature is that as countries grow wealthier over time, average happiness levels do not increase. We combined our Latin America data with that from a broader international comparison from the World Happiness Data Base compiled by Ruut Veenhoven at Erasmus University, and found that a similar lack of relationship held for Latin America (see Figure 4). (It is also notable that both Peru and Russia are quite low in terms of overall happiness levels).

We compared the determinants of happiness in Latin America and in Russia with those of the United States, and found a remarkable degree of similarity: there were similar age, income, education, marriage, and employment effects (except for Russia, where married people are not happier than others) (see Tables 5 and 6). In all contexts, unemployed people are less happy than others. Indeed, the only significant difference between the U.S. and our two samples were that women were happier than men in the U.S., while in Latin America and Russia men were happier (due to possible gender disparities?). Self employed people, meanwhile, are happier in the U.S. than others, while in Latin America, they were less happy. This makes intuitive sense. While in the U.S. the self employed are so by choice, in Latin America they are often in the informal sector by default.

What are the implications of all of these findings? It is certainly not possible to summarize these in a paper of this length, and fuller discussion appears in the above cited references. However, it is very important to note that using longitudinal and perceptions data gives a very different and arguably more accurate picture than looking at income or distribution data. While it is fairly standard to equate well being or utility with income, our research suggests that there are very important non-income determinants of well being, and that these variables are more important for those that are just above the poverty level rather than for the very poor.

Our data also suggest that these negative perceptions are linked to negative attitudes about a host of other issues, such as the fairness of the income distribution, future prospects for upward mobility, and satisfaction with markets and democracy. Finally, some more recent research based on the Russia panel shows that these perceptions matter to future income: happier people earn more income, on average, than less happy people (see Graham et al. 2003).

Figure 4. Happiness and Income Per Capita, 1990s

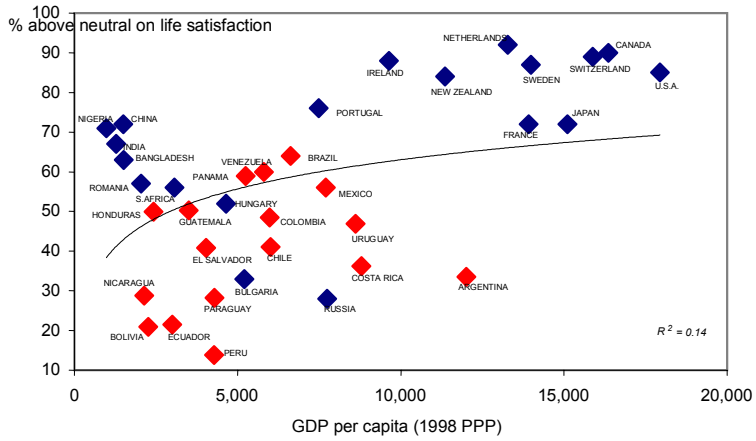


Table 5. Happiness and Economic Perceptions

Latin America 2000

Dep. Var. = happiness

	1		2	
	coef.	**z-stat**	**coef.**	**z-stat**
age	-0.025	-4.20	-0.006	-1.08
age^2	0.000	3.77	0.000	1.43
male	0.071	2.26	0.062	1.96
log wealth	0.463	12.07	0.284	7.18
year of education	0.006	1.33	-0.002	-0.47
married	0.086	2.50	0.070	2.00
Employment Status				
unemployed	-0.299	-4.61	-0.180	-2.73
retired	-0.079	-1.09	-0.068	-0.92
student	0.032	0.54	0.039	0.67
selfemployed	-0.092	-2.43	-0.046	-1.20
PPM			0.356	14.50
SATFIN			0.561	25.49
Pseudo R ^{2}	0.049		0.077	
number of obs.	14760		14563	

** Ordered logit estimation with country dummies (not shown)*

US 1972-96

Dep. Var. = happiness

	1		2	
	coef.	**z-stat**	**coef.**	**z-stat**
age	-0.046	-11.17	-0.023	-5.420
age^2	0.054	12.56	0.026	5.790
male	-0.166	-7.16	-0.179	-7.580
log-income	0.264	18.15	0.070	4.590
year of education	0.037	8.95	0.031	7.460
married	0.792	30.52	0.808	30.760
Employment Status				
unemployed	-0.681	-10.03	-0.418	-6.070
retired	0.093	2.04	0.108	2.310
student	0.294	4.19	0.314	4.390
selfemployed	0.119	3.24	0.117	3.120
PPM			0.280	16.57
SATFIN			0.606	33.51
Pseudo R ^{2}	0.042		0.077	
Number of obs.	31817		31611	

** Ordered logit estimation with year dummies (not shown)*

Table 6: Russian Federation, 1998.
Happiness and Economic Perceptions

Dep. Variable Happiness

Indep. Variables		Coeff.	z-stat
Age		-0.056	2.854
Age^2		0.001	3.120
Male dummy (m-1)		0.377	3.718
Log-Income		0.465	8.588
Education		0.037	1.606
Married		0.002	0.016
Employment Status			
	unemployed	-0.460	-2.478
	retired	-0.474	-3.448
	student	0.174	0.214
PPM		0.284	6.992
Pseudo-R2		0.042	
Number of obs.		2007.000	

Source: Authors' calculations using the RLMS.

In sum, working with different kinds of data – and in particular longitudinal and perceptions data – provides a much fuller picture than do cross section data of the extent of movement in and out of poverty within particular societies and therefore of the extent of opportunity and vulnerability. It also suggests that inequality has implications for economic and political behaviour. That picture, in turn, has quite different policy implications, and suggests that factors other than income gains are extremely important to people's well being in developing economies. While not discounting the critical role of growth in poverty reduction, it highlights the need for an increased focus on policies that enhance opportunity and for those that reduce vulnerability, as well as for more attention to equity issues. Despite these important advantages, working with such data is also rift with methodological and analytical challenges.

5. Methodology lessons and questions

The most obvious drawback of panel data, which is well known to those of us who use it, is its scarcity. This scarcity is of two kinds. The first is the mere paucity of the data itself, in large part due to the expense of generating it. Panels are few and far between, and there are only a small number of developing countries where we can rely on nationally representative samples to capture trends over time and therefore fully gauge the effects of particular policies on poverty and inequality. And it is virtually impossible to re-create such data for periods and places where it does not exist; e.g. it is very difficult to use proxies where observations are missing, and/or to recreate or capture past trends. Establishing a panel requires that the data begin at t-0 and only captures information moving forward.

The second kind of scarcity stems from the nature of panel data itself. Respondents both age and move away, leading to attrition which reduces the sample size and can also result in bias. Attrition tends to be greatest at the two tails of the distribution, meanwhile, as the wealthiest respondents tend to move to better neighbourhoods, and the poorest ones may move in with others or return to their places of origin (for example urban migrants that return to the countryside). In our studies, we had a 38% attrition rate over a 5 year period in Russia, and a 25% attrition rate for the 3 year period covered by our perceptions survey in Peru (for the 1991-2000 living standards measurement survey, we had less attrition). In addition, as respondents in the panel age, they also may become less representative of the population as a whole. Thus unless panels are inter-generational, as in the U.S. PSID, it is difficult to cover a long period of time without encountering attrition and bias issues (this is less of a problem for rotating panel, where subsets of the sample drop out and are replaced periodically, but this approach has its own drawbacks).

Another problem with any kind of longitudinal data is accounting for error in reporting income, a problem that is gravely aggravated by policy shocks such as devaluations and/or high levels of inflation. One approach – as in our Peru panel – is to rely on expenditure data. People who are self

employed or employed in the informal sector have a difficult time estimating any sort of monthly or annual salary, in part because their income fluctuates a great deal. Thus expenditure data is more accurate than income data for samples with large numbers of self employed and/or formal sector workers and agricultural workers. It is also more difficult to under or mis-report expenditures.

Yet relying on expenditures misses part of the story, particularly at the higher tails of the income distribution, and also does not capture volatility in income flows as well, as people tend to smooth their consumption where possible by dis-saving. On the other hand, relying on income reports in volatile developing or transition economy contexts is also rift with problems. We had a relatively large number of respondents in our Russia panel (54 out of 5000) who reported zero income, yet many of them displayed other traits that suggested that they were earning substantial income – most likely in the informal economy or black market. And the sharp devaluation of the ruble, among other things, contributed to a fairly wide margin in the range of incomes that people reported to be necessary to stay out of poverty, for example.

A related problem is differences in the way that rural and urban respondents answer survey questions. We found that rural (and poorer) respondents were much more likely to assess their situations at the mean response level (for example 'same' when comparing past and present economic situations), than were urban respondents, who were more likely to opt for extreme responses (very good or very negative). Reaching rural respondents and getting an adequate representation, meanwhile, is more difficult and costly than reaching urban ones. This is problem that we encountered, and both our Peru and *Latinobarometro* samples have an urban bias.

Accepting these limitations, having observations on the same people in two points or more in time creates a tremendous amount of analytical flexibility. Because of this, we were able, for example, to look at the effects of happiness on income in future periods (by calculating residual, or unexplained happiness in the first period (t-0), and including it on the right hand side in a regression with income in t-1 as the dependent variable). There are a variety of other questions where having more than one observation allows us to establish a direction of causality and not just a correlation.

Adding perceptions data to longitudinal data has benefits, but creates its own set of additional methodological problems. Happiness or life satisfaction questions are usually based on a four point scale; 'how happy or satisfied are you with your life', with two answers above and two below neutral. The correlation coefficient between happiness and life satisfaction questions is .95. The first problem with such surveys is that the data are most useful in the aggregate, rather than at the individual level. In other words, how a particular individual answers a question on happiness, for example, can be biased by day to day events, such as the break up of a relationship or a high grade on a test score or the like. Thus the same person could answer such questions quite differently from day to day or year to year. The simple correlation from a regression of happiness in year two on happiness in year one was .2734 for our Russia sample, suggesting a significant amount of fluctuation in happiness levels.

Yet when these questions are aggregated over large samples, they display a remarkable degree of consistency in patterns, such as in the effects of age, health, and marriage on happiness. And even at the individual level, psychologists find that there is a significant degree of validation in these surveys; in other words, people that answer happiness and other perceptions questions positively also display psychological traits such as smiling more (Diener and Biswas-Diener 1999).

Accuracy in reporting is obviously another major issue in using perceptions data (Bertrand and Mullainathan 2001). Responses can be very biased by the phrasing or the placement of questions in the survey. In Russia, for example, the happiness question was embedded in the middle of the survey, after a series of questions about economic status, which could obviously bias answers downward. We had the same problem occurred in the *Latinobarometro* the first year a happiness question was included. In later years, we were able to get the question placed at the top of the survey.

Another problem in reporting is bias introduced by different or changing reference norms. If you ask people how much income would they need to make ends meet, and/or to be happy, they usually base their answers on their existing income and double it or the like.[7] Alternatively, people base their answers on others in their community or others 'like themselves'. When we asked people in our Peru survey to compare themselves with others in their community and then with others in their country, we found that most respondents compared themselves much more favourably with others in their community

than those in their country, which is a much vaguer concept for most respondents. Yet if the reference point changes – perhaps a result of more information – then this can have significant effects on the answers.

We also found that there was a marked difference between how respondents answered questions that involved concrete points of reference and those that involved hope and aspirations. For example, many more respondents in Peru (and Latin America more generally) were negative when answering a question about how they lived compared to their parents than when answering questions about how their children would live compared to they. In Latin America, only 16% of respondents say that they live better than their parents did, while 64% of respondents in the U.S. do (see Graham 2002). In contrast, 58% of Latin Americans say that their children will live better than they and 57% of U.S. respondents do.

One technique that we used to try and benchmark responses was to ask more tangible questions, such as about the state of roads and schools and other public services. Here we often found a gap between responses: the same people who responded that their economic situation today was worse than 10 years ago (even when it was not) often responded that public services had improved a great deal.

Perceptions often interact with objective conditions and bias responses to questions on issues such as health. People's conception of health makes a large difference to how they answer questions about poor health. Poor people are much less likely to say that they have been ill, for example, than are rich ones. Even when one benchmarks questions, such as asking how many days in the last month one lost to ill health, the poor are much less likely to stay home from work even when they are sick[8]. Trying to get more specific and accurate helps, but cannot completely get around the problem.

Finally, it is difficult to disentangle behavioural versus contextual determinants of answers to perceptions questions. While there is a great deal of consistency in the determinants of happiness, a great deal of individual happiness remains unexplained (the R-squared in most happiness regressions is on the order of .03). When we separate this unexplained or residual happiness, we find that it is highly correlated with a number of perceptions variables, such as positive prospects for future upward mobility. To some extent, then, individuals' perceptions about their future mobility – or their children's – are driven by their character – the positive cognitive bias (self esteem, optimism) that psychologists find in happier people. At the same time, contextual factors also matter. Happier people and those with more positive attitudes about their future mobility are, not surprisingly, also more likely to be wealthier and healthier, for example. And they are more likely to assess markets and democracy positively.

There is clearly a direction of causality problem in working with perceptions data, as it is plausible that people with positive attitudes assess any context that they live in more positively. Our research finds that in many instances the causality runs in both directions: happier people are healthier in later periods, and at the same time, health is linked to happiness in the initial period. In the same way, happier people are, on average, wealthier, and we also find that residual or unexplained happiness in period one is linked to higher earnings, on average, in period two.

Thus there remains a great deal to disentangle in making inferences – particularly causal ones – from happiness data. Yet as in the case of panel data, working with such data gives us a much richer and fuller picture of the reality in developing economies, and a reality that better captures how people conceive of and assess their own welfare, something which we cannot get at from static, cross section data on earnings, income, or other socio-economic or demographic variables. Given the efforts of many development economists – and policymakers – to develop measures of poverty that are more comprehensive than income-based measures, these kinds of data – with all of their flaws – may have a great deal to contribute.

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Assessing Poverty Dynamics: Lessons from Panel Household Surveys for Urban Longitudinal Studies

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1. Introduction

Poverty is not a static phenomenon. Existing studies based on household panel surveys show that a large proportion of households move in and out of poverty over time, and that the 'always poor' are only a subset of the 'ever poor'[9]. For the purposes of the paper, I shall refer to the short-term changes in poverty status that such panel surveys identify as 'poverty dynamics'. Working within a quantitative framework, recurrent issues connected with attrition, measurement error and the modelling of poverty dynamics using panel household studies will be discussed. The focus will be on what can be learned for the conduct of urban longitudinal research in the future.

2. Attrition

Existing household panels all exhibit significant, although, varying degrees of attrition. In a recent survey of attrition in seven household panels, Alderman et al. (2000) find attrition rates varying from 6% to 50% of households between adjacent survey rounds. Due to their more mobile populations and less stable social structures, attrition is likely to be more of a serious problem in urban than in rural households panels. For example, attrition was higher in urban areas in both the Indonesian and Malaysian Family Life Surveys (Haaga et al. 1994; Thomas et al. 2001). Slum areas and 'shanty towns' are especially difficult environments to conduct household panel survey in, as they lack formal address systems and their 'clearing and redevelopment' can eliminate entire survey clusters (Hill 2002).

Attrition causes three main problems for study of poverty dynamics using household panels. First, the cumulative loss of households can greatly reduce sample size and statistical precision. Second, if attrition is non-random, analysis based only on the remaining sample will introduce selectivity bias as the sample becomes increasing unrepresentative of the population it was originally designed to represent. This is a particularly thorny problem when attrition depends on unobservables (variables that are not observed – at least by the survey instruments) in the first wave of a panel survey. Third, many significant factors in the poverty experiences of individuals and households are 'suppressed' by the construction of balanced panels, although they are informative in their own right.

Recent studies indicate that there are a number of practical ways of reducing the level of attrition in household panels (Hill 2002). These include collecting information on persons and 'networks' with whom the household is associated in the first wave survey, using common household and personal ID codes in all waves of the panel, recording the exact position of households using GPS technology, and designing clear tracking protocols which specify how and when households should be tracked[10]. Contrary to popular belief, many households do not move very far from their original residences, so that local tracking is not that costly. Long-distance tracking (for example of rural to urban migrants) is more difficult, but inter-wave follow-up visits and the provision of incentives to encourage households to report address changes and enumerators to track them can assist[11]. Thomas et al. (2001) report on the feasibility of tracking households in the context of the Indonesian Family Life Survey and conclude that 'following-up movers is an essential element of a successful panel survey' and that the costs of such tracking are 'not prohibitive'. Similarly, based on the experiences of nine-developing country panels (many of them birth cohort studies), Hill states that 'tracking can reduce attrition by up to 45% and is feasible' if appropriate tracking protocols are designed and implemented.

Investigations of attrition in panels in both developing and industrialised countries have found that while attrition is significant, it is not systematic, so that the biases in estimated socio-economic relationships due to attrition are small (Alderman et al. 2000). This 'exceptionally convenient' finding allows one to proceed with the analysis of the panel as if it were a simply a representative sub-sample of the first wave of the panel. However, there should be no presumption that this stylised fact holds for all household panels. Where convincing evidence is found for attrition based on observables, it is appropriate for subsequent analysis (see section 4 below) to employ some form of sample selection correction in subsequent econometric modelling of poverty dynamics. As it is easily implementable in many software packages,

one of the variants of the procedure originally suggested by Heckman, seems most appropriate.

Even if, on average, attrition from a household panel is not systematic, the factors that lead certain individuals and households to disappear from a panel may themselves be informative. Qualitative and participatory studies suggest that extreme poverty often leads to the migration of household members and/or the dissolution of households. When a working household head dies, the offspring of such household will often be 'farmed-out' to different relatives, while surviving young wives are 'encouraged' to marry again (Bird and Shinyekawa 2003). In the most extreme and heart-rending cases, unsupported individuals (widows, AIDS orphans) may simply die from poverty and neglect. As Kanbur commented at a recent conference on chronic poverty, all conventional poverty measures are essentially non-axiomatic, as they will show that poverty has actually decreased when a desperately poor person dies. A good deal more could be learnt about poverty dynamics if the factors leading to the attrition of households were studied more carefully, rather than simply 'suppressed' by the creation of balanced panels or swept into corrections for sample selection.

3. Measurement error

A second data issue that bedevils most household panels is that of measurement error. Whenever a monetary measure (such as expenditure or income) is used to identify poverty, it must be recognized that that metric is measured with some degree of error. Such measurement error is due to both the inherent difficulties of measuring any variable and the special problems posed by recall and inputting values for the income and consumption of own production (*autoconsumation*). Because measurement error inflates the noise-to-signal ratio, it is likely to lead to the misidentification of poverty transitions, the overestimation of transient poverty and the underestimation of chronic poverty (Baulch and Hoddinott 2002). In fixed-effects regressions, measurement error in the independent variables causes least square coefficients to be attenuated (i.e., biased toward zero) and inconsistent (Deaton 1997).

It is unclear whether measurement error is likely to be more severe in rural or urban panels. The greater dispersion of incomes and greater range of expenditure items in urban areas, will tend to increase recall and reporting errors. Fear of taxation may also lead some urban households to systematically under-report their incomes. On the other hand, own production and consumption will be less important than in rural areas. Lower levels of literacy may also make diary methods of data collection less feasible in rural than in urban areas.

A number of potential but imperfect technical 'fixes' exist to the problem of measurement error. These included using instrumental variables to 'purge' the welfare variable of 'noise', (McCulloch and Baulch 1999), the use of fuzzy poverty lines to determine poverty transitions, triangulation using assets measures (Alderman and Garcia 1993), and using cross-reporting of expenditures by husbands and wives to adjust the household expenditure aggregate (Boozer and Goldstein 2003). None of these methods are perfect but they do at least provide the analyst with supporting evidence that the changes observed in households' poverty status are not statistical artefacts.

In many instances it may also be possible to triangulate the findings of quantitative household panels with qualitative retrospective investigations. This involves 'nesting' detailed quantitative or participatory investigation within the sampling frame of the household panel. I know of a few cases where this has been tried (in Uganda and Vietnam) but only with a limited degrees of success. This remains an important challenge for Q^2 (qualitative and quantitative) longitudinal studies in the future.

The practical implication of measurement error for urban longitudinal studies is the need to design surveys which collect inform on instrumental variables and other variables that can triangulate traditional monetary welfare measures. Popular instrumental variables include rainfall, local prices, child and adult anthropometrics, parent's education and occupation, lagged values of the dependent variable, and variables from 'natural policy experiments'. Consumption expenditures and incomes are often good instruments for each other. To these in the urban context might be added unskilled wages rates, formal unemployment and other variables which reflect the general state of the urban economy.

4. Econometric modelling

When modelling poverty in a multivariate framework, it is important to decide whether to model poverty itself or the underlying welfare measure (such as income or consumption)[12]. In the static (cross-sectional) context, modelling poverty itself usually corresponds to estimating a discrete choice (such as probit or

logit) model on whether a person is poor or non-poor. This modelling strategy effectively 'throws away' (or 'truncates') most information on the level of welfare measure, and is roundly criticised by some poverty analysts (e.g. Ravallion 1995)[13]. In contrast, modelling the welfare measure in a static context usually involves some kind of least squares estimation which attempts to model the entire welfare distribution and does not pay explicit attention to those below the 'poverty line'.

This choice carries over into the modelling of poverty dynamics. When analysing poverty using panel data, discrete choice models are often used. Here the dependent variables take the values 0, 1, 2, 3 etc corresponding to the number of years a person stays poor or some other classification of poverty duration (i.e. always, sometimes, or never poor) and an ordered probit or multinomial logit model is estimated. The order probit is useful in examining the relative influence that household (or community) characteristics have on the probability of a household being among the chronically, transitorily or never poor. In contract, a multinomial logit will be more instructive if one wants to analyse whether the characteristics of chronically, transitory and never poor households are different (for example, for targeting purposes). Two extensions of the discrete choice approach involve i) modelling the sequence of poverty transitions via a nested logit; and, ii) estimating duration (or hazard) models of how long poverty spells last (Baulch and McCulloch 2002).

In the case of modelling the underlying welfare measure, either a fixed or a random effects model can be used. Fixed effects models have the important advantage that use all the data on the welfare variable and can take account (at least partially) of unobserved differences in individual and household characteristics. Various transformations of the basic fixed effects model can be used to distinguish between changes in endowments and returns to (initial) characteristics/conditions (see Glewwe and Hall 1998; Gunning et al. 2000; Maluccio et al. 2002). Such decompositions are especially useful in examining the impact of price changes on household welfare. As mentioned above, such fixed effect models are, however, problematic in the presence of (certain types of) measurement error. Random effects models have been used more rarely but offer the possibility of modelling asymmetries in movements up and down the welfare distribution.

Two alternative approaches to modelling poverty dynamics, which do not appear to have been used much in the literature to date, are those of quantile regression and sub-division of the panel in to poverty transition categories. In contrast to least squares, quantile regressions allow the poverty analyst to examine whether the relationship between a particular explanatory variable and the welfare variable is affected by the position of the household in the welfare distribution. Quantile regression methods are also more robust to outliers and heteroskedasticity in the data. It is also possible to subdivide panel households into sub-samples that are always poor, never poor, moving into poverty and moving out of poverty, and run separate change regressions for each. Then Hausman type tests can be used to compare whether or not coefficients of the always poor sub-sample differ from other sub-samples. This relatively simple disaggregation does not seem to have been done very often in the literature, though Davis and Stampini is one preliminary example of its use. These two approaches might also be combined by estimating quantile regressions for quantiles calibrated to the median consumption or income levels of the always poor, never poor, and those moving into and out of poverty. More research is required into the usefulness of these approaches in modelling poverty dynamics.

5. Other issues

There are several other data and modelling issues relevant to the urban longitudinal (in particular panel) studies, which there is not time to discuss here. These include the lack of time depth in most panel studies, the uneven spacing of panel waves in situations where more than two waves are conducted, the lack of detailed information on household and community level shocks, and absence of intra-annual/seasonal data.

6. Conclusions / recommendations for urban longitudinal studies

A number of recommendations follow fairly directly from the above discussion:

- Attrition is likely to be more serious in urban than rural household panels. To reduce attrition and increase the representativeness, survey protocols for following households that move from their original residences should be designed and implemented.
- Once a panel has been collected, the issue of whether attrition is random or

systematic needs to be investigated thoroughly.

- Careful attention should be given to both minimising measurement error and collecting addition (instrumental) variables which will allow for the magnitude of such errors to be
- evaluated (and partially controlled for). Special attention needs to be paid to the under-reporting of incomes in the urban context.
- Triangulation of the results of quantitative panel studies by qualitative/participatory studies (and vice-versa) is extremely useful.
- Further research is needed into the best way(s) to model poverty dynamics: ways of combining continuous change regressions based on continuous welfare variables with the classification from poverty transition matrices may prove useful in both urban and rural contexts.

The above recommendations are (probably) not controversial. It should, however, be noted that they represent something of a 'counsel of perfection': many existing panels and other longitudinal studies have not been designed as such, but are follow-ups to earlier successful cross-section studies. Since funders are rarely willing to commit to financing the multiple waves of data collection in a particular (urban or rural) location, researchers will often be faced with situations in which panels need to be constructed *ex post*. Despite the difficulties in funding and collecting high quality panel data and the methodological problems associated with analysing it, these and others forms of longitudinal analysis are essential to the understanding of urban poverty dynamics.

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Young Lives:
An International Longitudinal Study of Child Poverty

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1. Background[14]

Young Lives is a longitudinal cohort study of child poverty in Ethiopia, Peru, India (Andhra Pradesh only) and Vietnam. A holistic definition of child poverty is being used and the child outcome measures are: physical health, mental health, developmental stage for age, nutritional status, life skills (numeracy and literacy) and the child's own perception of well-being. Household characteristics such as demographic composition, livelihoods (assets including social capital; shocks) and a wealth index are measured. Purposive sampling of twenty low-income sentinel sites (urban and rural) in each country is accompanied by a community questionnaire. The sample is not nationally representative. Data from the first round are currently being analysed and between rounds there will be tracking visits. Policy monitoring will enable macro-micro linkages to be attempted and qualitative investigation of key results will be undertaken in the future.

2. Introduction: the attraction of panel studies

The essence of the longitudinal survey is that it offers repeated observations of individuals over time. Such time-series design is often encountered under the generic term *panel study*. The unit of analysis is normally the individual and not (as in some cross-sectional surveys) the family or household. This is because the nature of families or households can change across time. 'Panel studies should use the individual rather than the household as the unit of analysis and map the relationship existing between the two at different points in time. One can use the household as the unit of *measurement* but ought to use the individual as unit of *analysis*, attributing to each individual the characteristics of the household in which he or she lives' (Laurie and Sullivan 1991: 122).

Rose (2000: 34) sums up the strengths of panel studies as follows: "Essentially panel data allow us to distinguish between transitory and persistent aspects of phenomena such as poverty and unemployment. They allow us to examine gross change – flows as well as the stocks. As they mature, panels provide vital information on intergenerational issues, for example social mobility. However, these advantages only emerge if panel surveys are well designed and are maintained so that the disadvantages inherent to panels – panel conditioning (respondents becoming atypical of the population because of their panel membership), wave non-response, attrition – are minimised". 'Transitory aspects' can only be captured if the frequency of observation is high relative to the duration of the 'transitory' phenomenon.

Panel studies are analytically strong, provide an opportunity to link macro-micro issues and are increasingly called for in the research recommendations of numerous projects. However, the disadvantages of panel studies need to be borne in mind: they are costly and complex; it takes a long time for results to become available; and determination of aims at the outset may restrict the ability to respond to emerging policy questions.

3. The Young Lives project

The Young Lives project investigates the trajectories of poor children in Ethiopia, India (Andhra Pradesh only), Peru and Vietnam. It arose from the UK Department for International Development's (DFID) desire to monitor international development goals. The participating countries were selected, from over 20 who expressed interest, in order to illustrate a range of policy, social and economic issues on child poverty and well-being. Research capacity and contrasting contexts were sought.

The data collected is based upon a broad understanding of child welfare, and includes information on child development in addition to the more conventional nutritional and education measures. The project is taking a broad approach to poverty, including assessments of access to key services, work patterns and social relationships as well as core economic indicators such as assets.

The design of the long-term survey is based on studies of existing data relating to child poverty, and on the views of parents and children themselves collected using participatory methods during the preparatory phase of the project.

The main components are as follows:

- **Index children**. The study will follow a group of approximately 2000 children per country born in the year 2000/1. They were 1 year old at the first sweep. The

children and their households will be surveyed again when the children are aged 4, 8, 11 and 14.
- **Eight year olds**. The study also collected information about approximately 1000 children who were eight years old in 2002 in each country. This information can then be compared with the index children, when they reach age eight.
- **Community level data collection**. Information about the social, economic and environmental context of each community was collected at the same time as the surveys.
- **Thematic projects**. These will be in-depth investigations into key issues raised by the surveys, or issues which are felt to be best examined through qualitative approaches.

Preliminary reports from round one will be presented at an international conference in London in September 2003 (for details see www.younglives.org.uk).

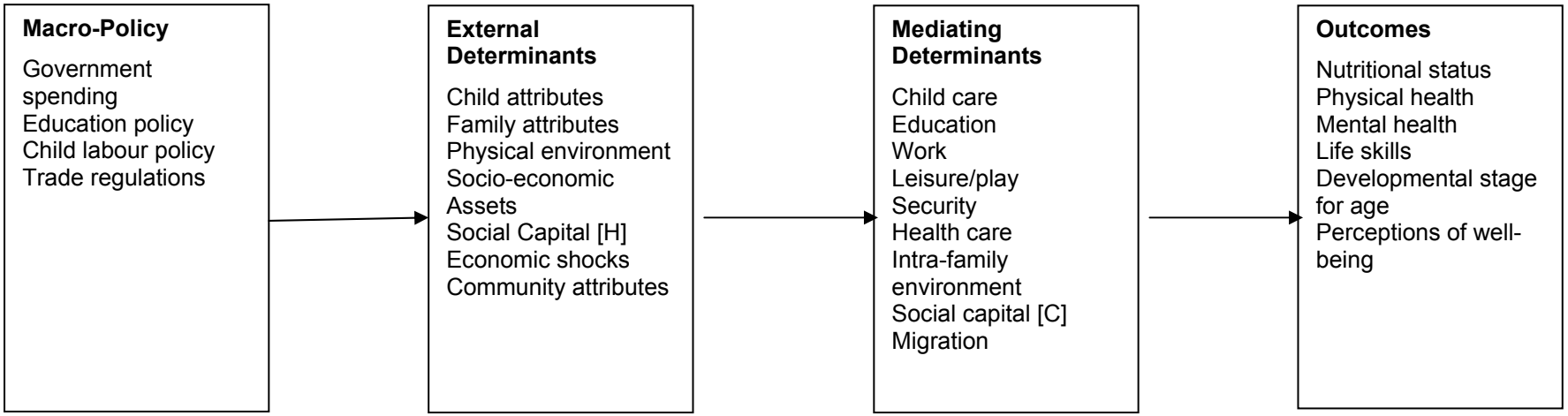
4. Addressing problems of panel studies in developing countries

i. Conceptual frameworks which link macro and micro contexts

"In the search for effective policies to combat poverty, bridging the gap between macro-level policy analysis and micro-level livelihoods analysis is an essential task, but not an easy one" (Shankland 2001: n.p.). Because panel studies are well suited to linking macro policy changes with micro individual or household changes it is imperative to have a conceptual framework that links the two. A conceptual framework requires hypothetical linkages between risk factors (or determinants, depending on what discipline one is from) and outcomes (see Figure 1). The Young Lives project has numerous outcomes such as a child's physical and mental health, her nutritional status and developmental stage for age, numeracy, literacy, and the child's own subjective perception of well-being. In addition, there are risk factors for such outcomes. These include aspects of child care (including use of services), work, play, education, and household structure including parental characteristics such as caregivers' education status and physical and mental health. Careful consideration needs to be given to the measurement of wealth, socio-economic status and livelihoods. Young Lives uses a livelihoods framework and tries to capture shocks and various assets (such as social capital) which may buffer the effect of shocks. As Dercon (2001: 7) states: "panel data… are crucial for increasing our quantitative understanding of shocks and their impact". But all this is at the micro level; what about the macro?

In between the two levels are community structures and institutions. It is useful to capture contextual information by implementing a community (ecologic) questionnaire. The sampling procedure can facilitate or hamper the collection of the most useful community-level data. We need enough communities to see variation in the effect of policy implementation (or to confirm its uniformity across the state). 'Within' communities we want all of a set of households to be part of the same 'community'.

Figure 1. Framework: examples of variables



Measuring change at the macro level requires monitoring policy over time and then, in analyses, linking such change to micro level change at the household or community level. Studies may be concerned with specific sectors, such as health, or may be interested in broader issues such as poverty, in which case cross-sectoral policies have to be monitored (e.g. privatisation). Evidence of policy implementation, not mere declarations or enactment, needs to be monitored. Thus, information is required on any differential implementation (between places [region, rural/urban], times or population groups). If inter-sweep tracking visits are made to cohort members, field workers can undertake checks of policy implementation at the local level during these visits. In addition, complementary longitudinal qualitative data may illuminate quantitative relationships observed (Laurie and Sullivan 1991).

Another point to note about macro-micro linkages in panel studies is that a single cohort study is not able to inform us about trends. For life-course processes recorded for a single cohort, there is no scope to examine variation from cohort to cohort. Only a comparison *between* cohorts allows one to establish whether there has been change across time, for example whether children born ten years later have better nutritional status (Dale and Davies 1994). However, this substantially adds to costs and a single, additional cross-sectional survey of children at a particular age (as was done in Young Lives) is a compromise that will at least provide some comparative data, provided it uses the same sampling basis as the original cohort. In addition, the panel data can be compared to secondary data sources (e.g. previous national surveys) if population groups are sufficiently similar.

ii. Sampling the cohort in a cost-effective way

Sample selection for a panel study needs very careful consideration. In many cases it may be impractical to take a sample, representative of the relevant age-group, from the general population. It would need to be very large and expensive to contain enough of any given target group.

If it has the aim of illuminating macro-micro issues, a study needs to focus on geographical areas ('sites') where it is meaningful to assess the local implementation of relevant policies and to collect a meaningful sample of micro-level information on individuals. The sampling strategy requires work at two levels: site selection and sampling of individual households within sites. Those individuals selected within sites studied will of course be personally unknown and anonymous to analysts concerned with the whole study, so the usual requirements of objectivity demand that sampling have the benefits associated with randomness, rather than being casual or opportunistic. Also, repeated follow-up makes it imperative that the selections made can be documented and traced, so the site sample can be reproduced without difficulty. In practice this is likely to mean that a systematic form of sampling is used, carefully adapted to local conditions.

At the level of site selection, it can be anticipated that plausible entities that might become sampled sites will have numerous characteristics that are well-known at least regionally. For example one site may be a centre of a particular form of child labour in an ill-regulated industry, a market for some specific products, the centre of inter-communal religious violence, and so on. Sampling sites at random disregards this plethora of information, and will only work well if there are a huge number of selected sites so that most important features are adequately represented. To keep down the workload and the corresponding costs, developing country studies are likely to have a relatively small number of sites, so these must be sampled purposively, ensuring they serve to illuminate macro-micro policy linkages known to be important at the outset, e.g. individual or combined impacts of legislation on child labour, and an improved commitment to industrial regulation. A claim to have avoided subjective selection biases depends on a very clear qualitative description of the site selection, e.g. how it draws on published data, and was agreed by consensus of named experts.

iii. Tracking individuals

Minimizing loss of individuals over time is perhaps one of the greatest challenges facing any panel study. Refusal to continue participation is the main reason for loss in developed country cohort studies whereas in developing countries the principal problem is failure to trace participants (Hill 2002). Tracing rates, naturally, vary according to factors such as the inter-sweep interval and local conditions. The selection of strategies to maximize tracing is determined by resources and local circumstances. These strategies range from the gathering of pertinent information to the use of technology.

Information on key friends, neighbours and family of a participant can lead to useful sources of help when a cohort member has moved. Another possibility is to employ a local community member to conduct occasional tracing checks on cohort members. Improvements in communications technology bring new possibilities. Geographical Information Systems (GIS) provide exciting new opportunities for tracking in remote areas. Decisions must be taken on, for example, whether to follow individuals who move outside the study catchment areas. Large-scale studies have used a central tracking operation for cases that move beyond a local area. In the Young Lives study, information has been gathered in the first sweep of the study to establish tracking strategies for the different sentinel sites, according to factors such as within-site mobility and migration rates.

iv. Ethical issues

Ethical issues are particularly important in panel studies because of the increased burden on respondents. In some developing countries appropriate ethical committees do not yet exist – they may have to be established before the implementation of a panel study (as was the case in Vietnam). An important aspect of successful tracking of cohort individuals is that on entry to the study they are aware of its longitudinal nature and that they consent to being traced over time. This is one ethical issue which differs from single cross-sectional studies. Panel studies, naturally, share many ethical concerns with other study designs and these are important to address. These include issues such as informed consent, how to deal with cases of illness or abuse encountered, and how to interview vulnerable groups such as children. An issue which perhaps bears greater significance in panel studies is that of incentives for participants. The question of whether to use incentives, in the form of cash or kind, particularly where there is no immediate benefit of participating in a study, is not straightforward. In the South African Birth to Twenty Project, for example, study participants receive simple tangible reminders of the project such as stickers, key rings, annual calendars, fridge magnets, pens and rulers, all with a prominent study logo. Participants are refunded for any transport costs incurred and a limited social and health service has been incorporated into the study. A toll-free number has been installed in the project office to enable families to contact the study for advice and information. Referral notes to local services are given to families when serious health or social problems were detected. Incentives in the form of communication to make participants feel involved have also proved helpful to keep participants interested and to remind them to inform organizers about change of address. Examples include birthday cards, regular newsletters, reports on the study in the local media, and a website (http://www.wits.ac.za/birthto20).

v. Data management and analytical challenges

Improvements in both computing software and hardware have helped put panel studies within easier reach of researchers. Nevertheless, their complexities for data management and analysis should not be underestimated and require considerable care in design and ongoing maintenance. Planning for data management and analysis at an early stage can also inform the design of data collection instruments such as questionnaires – for example, by clarifying the coding of variables or by evaluating the utility of a question, in an analysis plan with dummy tables. These points hold for other types of study, but for panel studies they are perhaps of even greater importance since the early planning stages need to consider the data management and analysis requirements of later sweeps. A good foundation will reap many benefits at later stages.

To capitalise on the primary strength of panel studies means looking at data longitudinally, that is linking data measured at one point in time with measurements at later points. This requires consideration of how stable or transient variables are in assessing their use as determinants or correlates of later outcomes. A key problem is that of missing data, either when an individual is lost to follow-up entirely or misses a sweep but returns later. This is a methodological field of enquiry which is currently attracting considerable attention and likely to generate more sophisticated and accessible methods for dealing with missing data such as imputation.

Finally, a crucial issue for long-term successful use of panel data is comprehensive documentation of procedures and structures. Few researchers will be involved with a long-term study for its entire duration and as the complexity of datasets increases, the need grows for clear metadata – explanatory information associated with the actual data, e.g. as to what was measured or recorded by whom and about whom, when and where; and any changes to datasets during ‘cleaning’. These metadata should be securely locked on

to the data themselves and all documentation and definitions should be of sufficient standard that the provenance of early data can still be fully understood fifteen or thirty years thence. This requires rigorous attention to archiving of metadata, in turn requiring a high degree of selectivity about the data and metadata items preserved, to avoid too large a bureaucratic burden.

5. Conclusions

Panel studies are important in developed countries due to their ability to inform policy (Office for National Statistics 1999; Institute for Social and Economic Research 2000). As the call for evidence-based policy increases in developing countries the attraction of panel studies will grow. However, they are expensive (e.g. the UK 1970 Birth Cohort Study and the UK National Child Development Study have each cost approximately £1.5 million) and complex. As experience of implementing panel studies in developing countries increases, more guidelines can be formed regarding the challenges considered in this paper: selecting a sample in the absence of a sampling frame; linking macro and micro contexts; tracking mobile populations; the need for ethics committee approval; and sophisticated data management and analysis. Panel studies should not be entered into lightly in any context, but in resource-constrained environments their added value needs careful consideration. They certainly require quite long-term robustness of funding and a stable institutional setting, and they require their backers to have sufficient vision and patience to accept limited value for money in terms of results from the early stages, the greater benefits accumulating in the study's mature years.

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Accumulating Advantage and Disadvantage:
Urban Poverty Dynamics in Peru

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1. Introduction[15]

The research I will be discussing here concerns a settlement founded by squatters on the southern outskirts of Lima, Peru, in 1970 and the years immediately following. The study began as a multi-method project focused on child and infant health and nutrition in rural and urban poor families in Peru. The settlement of Leoncio Prado was chosen for the urban part for reasons of access and opportunity. The research team included myself, psychologist Blanca Figueroa, and paediatrician Ana Maríñez. Maríñez worked out of a health centre whose radius of action encompassed Leoncio Prado. It was one of the newest sectors under her purview, located at the far end of a sandy slope where informal new settlements had been pushing upwards for several years. In 1977-78, water was being sold from cistern trucks, and a contract had just been signed for self-financed, partly self-constructed electricity connections.

This was not originally conceived as a longitudinal project. Several of the characteristics of the initial research, however, favoured that possibility. These included:

- The initial focus on infants and children. The families in the original sample of 74 households were selected for having at least two young children. This set the stage for expanding the second wave of interviews in 1992 to the by that time adolescent children of the original households and, in 2001, to those young adults, their spouses and children (where such existed) and to substitutes for these various positions to make up for attrition and refusals.
- The child requirement determined similar positions in household life cycles of most of the households. Most squatter invasions in Peru involve not direct rural to urban migration but moves out of inner city areas by recently formed couples looking for increased living space as their first or second child is born.
- The initial interest in services and unmet needs. Base-line information was collected on services, demands, and community organizing efforts. A cycle of community development could thus be analysed in conjunction with the household life cycles to explore hypotheses about the effects of community involvement on poverty dynamics.
- The type of community and its relatively low mobility, once consolidated. Those who occupy squatter towns in urban Peru (land traffickers and political party operatives excepted) tend to be playing the only card they have to get a house and lot, and the high investment they make in community building, physical and social, further ties them to the neighbourhood. Of the 74 households in the original sample (two per housing block) in 1978, 66 were relocated in 1992 and all of those were present in 2001. 56 accepted being included in the third wave of interviewing.
- Almost equal interest in men and women. Contrary to what later became standard practice in research on child welfare and related community services, information was collected from and about both men and women, parents as well as other family members.
- My staying on in Peru, living relatively close to the settlement, and progressing through a cycle of jobs that kept me involved with issues of family, urban services, urban poverty and inequality. This set the stage for my involvement in the community through the 1980s as an all-purpose ‘advisor’ and intermediary for women’s groups.

2. The conceptual framework

Throughout, the research has revolved around the general theme of poverty dynamics and conditions of life of the urban poor. The conceptual focus varied somewhat in each wave of formal interviewing, driven in part by events in the country and in part by the interests of the entities that funded the research. In parallel, I used the community of Leoncio Prado as a convenient, known site to work through many of my own theoretical interests (for example, the functions of personal networks for poor women and families). The table summarizes the conceptual and substantive foci of different pieces of the research in Leoncio Prado.

Table 1. Conceptual and substantive research foci

Year	Formal waves of interviewing	Other knowledge-producing activities
1977-78	Child health, nutrition, and 'natural' systems of childcare in urban poor families. Needs for child-related services such as day care.	
1981		Leoncio Prado made part of a study of child development by the research branch of the Ministry of Education (author's employer at the time).
1982		Author becomes advisor to the Women's Committee by invitation of the community governing council (all male). Brings in NGO Perú-Mujer and begins work on creating a family day care system.
1984		Study of women's informal networks. Emphasis on neighbourhood support systems and access to services
1985-86		Surveys of women's work experience and income-earning skills in preparation for organizing a handicrafts centre and associated adult education program.
1992	Effects of the economic and political crisis of the 1980s. Household responses. Effects on children growing to adolescence through this period. Gender relations and the significance of women's promotion projects that flourished through the 1980s.	
1991-92		Leoncio Prado and a neighbouring community included in a study of local democracy. Interviews of leaders of all organizations and analysis of their network relations.
2001	Movements in and out of poverty. Effects of development projects and government anti-poverty programs of the 1990's. Internal inequalities in urban poor communities. Intergenerational transfers, opportunities, probabilities and routes for 'escaping from poverty' in the second generation.	
1978-present		Personal relationships with individuals and groups. Sponsorship of school graduating classes and campaigns for municipal office. Godchildren, official and unofficial.

Throughout, the availability of funds for research and for applied work on specific issues has been an ineluctable constraint. The largest investments pertain to the three formal waves of interviewing in 1978, 1992, and 2001[16]. The first wave of interviewing was funded by the USAID Office of Nutrition as part of a five-country study preparatory to the International Year of the Child. The second wave was funded by the gender office of IDRC (Government of Canada); thus the focus on gender, development projects, and intergenerational relations. The third was underwritten by an Outstanding Research Award of the Global Development Network, and the focus on the long-term effects of development strategies and government policies was probably a factor that interested the panel that decided on the award. The need to rephrase the conceptual framework for successive waves of fieldwork – although it occasioned significant discontinuities – had the benefit of interjecting new variables that often proved to be very productive.

3. Methodology

i. Data collection

The main forms of data collection used both in formal and non-formal waves of research included the following:

Table 2. Data collection

Formal waves of research	All else
Individuals and households. The principal means of data collection in the 3 waves of the study was a semi-structured personal interview. This was applied to husband and wife in 1978; husband, wife, and 2 adolescent children (evaluated by the paediatrician in the earlier wave) in 1992; husband, wife, same 2 offspring and their spouses where they existed in 2001[17]. In the 1978 and 1992 waves, a family round-table was used as a 'thank-you' and means of closure. Not feasible in 2001 because of many more people involved and complex histories of conflict and antipathy in many cases.	*Individuals and households*. Observation and fieldnotes Exchanges of visits to homes Network protocols ('Who do you turn to for help in resolving . .?') Psychological testing of small group of under-5 children (1981 and 2001)
Community and external actors. Inventories of organizations were constructed and the same was done with outside actors (government, NGOs, philanthropic, religious, soccer leagues the most prominent) that were involved with the community. Representatives of all these organizations were interviewed and, in 1992 and 2001, there was special attention to the networks that connected them and the resources flowing through those networks.	*Community and external actors*. Participation in community events (witness, 'honoured guest', negotiator for women's projects, donor, godmother) Participation in seminars and meetings with outside actors, especially in the NGO community. 'Action research': projects for training home day care workers and managers, for setting up the handicrafts centre. Writing of popular history of the community, discussed and verified with formal and informal community leaders
Documentation. Newspaper clippings, academic research on urban economy, project registers and evaluations, archives of political violence and localized events in the area	*Documentation.* Books and records of community organizations, photographs, memorabilia of anniversaries and inaugurations

ii. Analysis

Most of the analysis of all the bits and pieces of the research sequence in Leoncio Prado has used an array of standard qualitative analysis techniques. These include:

- Visualization: kinship diagrams, time lines, migration routes, movements in the city.
- Matrixes: year-by-year, person-by-person registers of income-producing activities, obligations to provide support or pay household expenses, shocks and windfalls in family groups; sequence of accumulation of services and amenities.
- Counts: variety of jobs and occupations, training courses, use of services, value of amenities.
- Inventories: community organizations, male and female community leaders, local services, outside actors, projects, social programs.
- Networks: women's personal and helping networks, inter-organizational networks.
- Archives by theme: lists, references and 'notable quotes,' fieldnotes classified by topic, exceptional and discordant cases.
- Memos: provisional interpretations, emerging patterns, intuitions about underlying order in the data.
- Scales, indices, typologies, groupings of households and individuals along different dimensions (poverty, community participation, family conflict and cooperation, perspectives for the second generation).

In 1978 I coded a limited number of variables for use in a regression analysis exploring associations among household organization, family composition, parental characteristics and aspirations, household income, community participation, and use of services; children's health and nutritional status were the dependent variables. In 1992 I used a standard quantitative software package to code some 100 variables and produced descriptive statistics and some simple correlation analyses. I am presently initiating the process of coding the 2001 interview data with a qualitative software package. I am very conscious, however, of the amount of analysis that has relied on 'inspection,' on 'staring at' the data: long hours of reading and re-reading transcriptions of interviews, trying to understand individual life-histories and self-

representations, and putting that together with glimpses from fieldnotes and references that other people made to those individuals. The notion of 'inspection' attempts to do justice to prolonged, unsystematic searching for associations between and among perceptions, experiences and events that might never have connected, had I relied only on the coded material. This is particularly true of the connections that involve large chunks of time.

To date the most ambitious quantitative treatment of the data involved a cluster analysis based on 'livelihood groups' that formed a rough hierarchy from best to worst off within the community in 1992 (1 = small-scale entrepreneurs, 2 = stable formal employment . . 6 = marginalized/no apparent income source). This sought to test various explanations of the positions of the households in 1992 and incorporated some variables reflecting processes between 1978 and 1992 (for example, household experienced one or more shocks; ever used government food assistance programs; subjective assessment of the household's 'best times, economically'). The results of the analysis were somewhat inconclusive, primarily because of the high number of missing cases and values (Anderson 2002b).

4. Lessons learned, mostly methodological

i. Operationally

The methodological lessons learned are far too numerous to list here but I note some of the most challenging:

Discrepancies among household members, consistencies over time in individual informants

The versions different household members give of their shared life, events and relations tend to be highly discrepant – something we have long known. By contrast, I have found a surprising consistency in the versions of events that individual informants give when these come up in different waves of data-gathering. This extends to the meaning they attribute to the events. It may reflect a tendency for individuals to elaborate their personal 'official history' early on and stick to it each time they retell the incidents they consider to be an essential part of it. I have found variations in their recall of facts (for example, adding or subtracting a year of education, changing the dates of moves or job switches) that could be significant if we were requiring a high degree of accuracy in recall data. Such a requirement, in my experience, is impossible to satisfy.

Where the selection of information varies greatly between one telling and the next, the tone or the attribution of significance is very different, there tend to be reasons that are relatively easy to identify. As adolescents in 1992, the members of the second generation of Leoncio Prado, for example, were often savage in describing their relations with their parents, especially fathers. In 2001, as young adults beginning to form their own families, they were much more reflective, forgiving, and 'objective' in talking about their parents, siblings, and other relatives. The general rule of best practice in interviewing is strongly upheld in my data, however: don't ask third parties, ask the person directly involved (e.g. women about marital conflicts, men about their work lives and earnings, adolescents and children about their own economic activities, aspirations, and friends.)

Slippery categories and moving lines of continuity

The presumption in longitudinal or panel studies tends to be that direct comparisons between different moments in time should be based on repeating the same questions (generically, stimuli) in the same way in successive waves of data collection. This is not necessarily the case, in my data. I have been able to construct variables, concepts and lines of argument from responses that were elicited using very different sources and points of entry. The most striking example has to do with education, training, and informal learning. These are factors that are extremely important in explaining poverty outcomes in Leoncio Prado. In 1978, I constructed a baseline image of men's and women's positions through questions about formal schooling and about occupational training, but above all through questions about free time activities, hobbies, and interests. In 1992 and 2001 the richest fields to be explored turned out to be those that had to do with varieties of social and political participation (local government, party politics, workers' organizations, development projects, non-governmental organizations and the community groups they sponsored). Adult education and continuing learning are tied to involvement in the institutional world; such involvement takes many paths; and the institutions in question do not form an obvious single category beyond their capacity to provide learning opportunities to poor men and women largely excluded from conventional, more easily recognizable routes.

ii. Analytically

My overall sense is that the development of analytical tools and strategies for longitudinal research –or any truly time-sensitive research – is barely beginning. There are few models one can turn to for things as simple as matrixes to organize sequences of events involving multiple actors and multiple dimensions of reality. Software packages are limited. Here too the challenges are myriad, but from my experience in Leoncio Prado I would highlight the following:

- Whereas work, income producing activities, expenditures and consumption are core variables in studies of poverty, there are almost insuperable problem of accurate reconstructions – whether over the last few days, weeks, months or years – of sequences over time. Interviewing about these topics seems to be irredeemably boring, tedious, rife with failures of memory, and an invitation to non-engagement by the informants (usually the tales to be told are too sad and familiar, too full of failure).
- There is a need for analytical tools that would work better with processes over time that imply slow, not necessarily steady and incremental, accumulation. Equally important are the slow, almost imperceptible processes moving in the opposite direction, processes of loss, erosion, and entropy. These might involve, for example, disintegration of family groups, individuals' disconnecting from other kinds of organizations, deskilling in all its forms, unlearning attitudes or behaviours and replacing them with others, shedding assets, losing ties to social networks, descending into substance abuse, the crumbling of prestige, power, and self-image. All too often, we are forced to work with snapshots of presence and absence at one point in time and verification of the same presence and absence at a later points. The processes in between may, in reality, be bumpy and irregular, full of movements back and forth. Our methods (or lack thereof) are preventing us from seeing crucial dynamic features of these processes: chains of decision, opportunities seized or lost (and their likely consequences), intervening variables, subjective states of the actors (hope, confidence, discouragement, resentment, in all their grades and varieties) and therefore limiting the range of policy options that might be designed, were we in a position to catch the right signals early on.

iii. Conceptually

The Leoncio Prado project pointed up at least three conceptual dilemmas that are difficult to resolve through available analytical techniques and difficult to make visible in conventional reports on longitudinal studies or, indeed, most of the research on poverty from whatever methodology and standpoint:

There are complex interactions among variables that become even more complex when viewed over time

Some of the variables that are important in explaining the dynamics of poverty and accumulation in Leoncio Prado form clusters that seem to be interacting in very complicated ways. Such interacting clusters of factors are undoubtedly present in all historical processes, yet their members are difficult to capture, represent and visualize, and therefore to conceptualize and measure. Path analysis and multiple regressions might be tools beyond a certain threshold of sample size and precision in the variables, but many longitudinal studies do not permit their use, given sample attrition, slippage in the definitions of concepts to fit changing circumstances, and other concessions to reality. As an example, in my data, 'female domestic fronts'[18] appear in many households in the years between 1978 and 1992. They seem to be connected with male loss of formal jobs, plummeting household incomes and the need to re-deploy women and children in income-producing activities (leaving a care gap to be filled by other females at home), changes in the quality of the relations of conjugal pairs, the dethroning of male household heads, and the souring of relations between parents and adolescent children. One wishes there were clearer ways to sort out the relative weights of all these factors and to be able to evaluate with greater certainty their relevance in individual cases.

The evolution of certain processes is 'punctuated' and discontinuous, rather than smooth and continuous

In many longitudinal or panel studies, there is an assumption that the processes of change that can be inferred between one point in time and another were gradual and smooth; there is, in any case, no way of proving the contrary. My research suggests this may not be true, and that policies based on this assumption may be misguided. There would seem to be moments when household and family groups act with a sudden burst of energy, mobilizing resources in a discontinuous way calculated to get them past an obstacle, after which they

can return to the normal task of slow accumulation or dogged defence of their position. I am proposing a concept of 'punctuated' evolution or sudden 'peaks' of effort. The strongest evidence of such 'punctuation' in the Leoncio Prado data shows up in the 2001 wave of interviewing where the households were in process of launching the second generation into independent life ('real' jobs, marriage, first pregnancies, separate housing). The involvement of many households in building the shanty community may also belong to this class of events. Although the community construction cycle lasted some 15-20 years overall, most individual households limited their involvement to a much shorter period of 3-4 years. During this period they volunteered time, paid their dues, participated in meetings, and were part of the news network on the street. This burst of physical and social energy, however, came to an end, and the turn passed to other neighbours. The 'retirement' (probably forced by ill health or accident) of the older generation may turn out to be another such moment of punctuation associated with a life-cycle transition.

Cultural and symbolic dimensions of social reality that are difficult to make perceptible in cross-sectional research are likely to be drowned out even more decisively in a longitudinal framework

'Materialist' interpretations are far more prevalent in analyses of poverty dynamics than 'symbolic' approaches to social reality, perhaps because of the long tradition that lies behind us of understanding poverty as, essentially, the absence of money, goods and services. In general, social science research has far more tools for handling 'objective,' visible, concrete and quantifiable variables than it has for handling cultural or symbolic variables and concepts. This imbalance is probably exacerbated in longitudinal research. Yet symbol systems (for example, the symbolic dimensions of gender systems, gender 'schemas' strongly grounded in resistant habits of perception (Valian 1999), hierarchical prestige systems, value systems, systems of meaning and frameworks for interpretation, systems of ethnic relations, segregation and discrimination that are crucial to understanding poverty dynamics in a country like Peru) also evolve and change over time. The challenge is making them fully visible as data, on a par with income curves, the acquisition of a refrigerator or the biological fact of a catastrophic illness.

5. Recommendations for future studies

Longitudinal studies require a very high investment: of time, money, involvement of the researchers, maintenance and repair of personal relations, preservation of records, and complex analysis and interpretation. My research in Leoncio Prado has grown and evolved without much long-term planning, yet that may be the usual situation for such research. Even the best-laid plans are likely to be brought crashing down by the changing circumstances that will inevitably present themselves: instability in the research country, unpredictable events concerning gate-keepers to the research sites, the uncertainties of funding and institutional support.

One recommendation that I believe holds over all the diverse circumstances and styles of longitudinal studies concerns consultations with the population under study and the incorporation of its own viewpoints about the processes taking place. My research in Leoncio Prado argues for the usefulness of being very responsive to the actors' own agendas and changing concerns over the life-cycle. One very productive line of investigation around the determinants of poverty was directly inspired by local, Andean folklore about conjugal pairs that are 'strong' (independent economic actors that coordinate well and pull in the same direction; a 'yunta,' a pair of oxen). Everywhere, the language used locally to talk about situations and processes connected to wealth accumulation, security, risk and deprivation is important because it is full of suggestions about the causal links that are operating throughout the society. We are only beginning to give credit to what poor people themselves say, think, and do about poverty, as we are only beginning to understand how that also changes over time.

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Identifying Causes of Long-Term Poverty within Families: Experimental Use of an Anthropological Data Base

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1. Introduction

This paper describes the experimental use of an anthropological data base to illustrate the limitations of the culture concept in explaining long-term poverty. The method was designed to present multigenerational data on a small number of extended Puerto Rican families in a format that facilitates comparisons of structural, cultural, and situational factors as they effect the economic status of these families[19]. Schematic genealogies were used to graph cross-generational data on income, jobs, education, migration, and health for the purpose of disaggregating from the general rubric of culture various factors that limit economic mobility.

Despite the centrality of the culture concept to their discipline, anthropologists have been writing for some time about their weak understanding of the modes or agents of transmission of culture traits (for example Hewlett and Cavalli-Sforza 1986). Also much criticized in the past few decades has been the tendency of some social scientists to assign culture a causal role in the persistence of certain attitudes or practices detrimental to health and welfare. One of the strongest critiques has been made by the physician and anthropologist, Paul Farmer, who rejects medical anthropologists' claims that understanding and accommodating folk practices is an essential prerequisite to effective medical treatment of MDR TB or HIV/AIDS, for example (see Farmer 1997). In addition, the culture concept itself has fallen on very hard times, its significance downgraded, and its use even banished from the professional vocabularies of some anthropologists[20]. This has happened at a time when – or perhaps because – the concept has become ubiquitous in journalism and other writing for general audiences, especially in the use of the 'culture of —' construct.

That anthropology has arrived at the point of rejecting its most central organizing concept is in part a legacy of earlier generations' use of 'culture' in an ever more comprehensive, and therefore increasingly ambiguous, way to mean something like 'whatever I study'. The concern here is how culture, when used in a comprehensive way, can obscure the meaning of data gathered by ethnographers. Specifically this paper uses the field archive of the American anthropologist Oscar Lewis (1914-1970) to clarify the confusion about causation created by his use of culture to explain long-term poverty.

2. Background

Although Oscar Lewis had 20 years of distinguished field work behind him when he hypothesized the existence of a culture of poverty shared by millions of the world's poorest people, his larger body of work and its significance have been obscured by this three-word phrase, which was so recklessly bandied about during the 1960s policy debates over Lyndon Johnson's war on poverty.

The rough version of the culture of poverty thesis, the part that stayed in people's minds, can be summarized in a single sentence from Lewis: "As an anthropologist I have tried to understand poverty and its associated traits as a culture, or more accurately, as a subculture with its own structure and rationale, as a way of life which is passed down from generation to generation along family lines" (Lewis 1979: 68).

All but forgotten, however, is Lewis's claim that this subculture would arise only in capitalist systems at a certain stage of development. It was, in his view, a culture spawned by – not just *in*, but *by* – stratified capitalist systems. Because, during the last decade of his life, Lewis published his research in the form of family studies and biographies rather than as community studies (as he had done with his earlier Mexican and Indian research) people tended to forget the systemic-cause part of the argument while remembering only the secondary point that the subculture was passed along primarily through the agency of family. If readers took away something beyond the family sagas, it was likely Lewis's characterization of the family as a mirror of culture. By focusing readers' attention in this way Lewis reinforced his claim that families were the key agents for transmitting culture traits. But this also made it more likely that readers would remember not what Lewis said *caused* poverty, but rather why he said it was difficult for some families to escape it.

Lewis's argument was hardly complex, yet it was too complicated to be captured in a three-word phrase. First came the poverty – which initially, in Lewis's view, was always systemic in cause – and then came the

reaction to it – the subculture. First the exploitation, the oppression, or the inevitable (and thus value-neutral?) consequence of development – however one wants to refer to it – and then the attempt by those who had been dispossessed and marginalized to adapt to their new status, in diminished circumstances and with the limited tools available. Effect in turn becomes cause, as the response to externally-caused poverty itself becomes a major factor in limiting economic mobility.

The culture of poverty is both "an adaptation and a reaction of the poor to [a] marginal position in a class-stratified, highly individuated, capitalistic society...Once it comes into existence, it tends to perpetuate itself from generation to generation...By the time slum children are six or seven years old, they usually have absorbed the basic values and attitudes of their subculture and are not psychologically geared to take full advantage of changing conditions or increased opportunities which may occur in their lifetime" (Lewis 1970: 69).

Lewis's assertion that the family was responsible for socializing children into this way of life led a number of people, including some policymakers, to argue that the highest priority was not the adoption of policies to ameliorate poverty and end marginalization but rather the adoption of policies targeting the behaviour of poor people. Lewis said this was turning the meaning of his work upside down. The crucial question from both the scientific and political point of view is: How much weight is to be given to the internal, self-perpetuating factors in the subculture of poverty as compared to the external, societal factors? My own position is that in the long run the self-perpetuating factors are relatively minor and unimportant as compared to the basic structure of the larger society[21].

But Lewis did believe that poverty policy had to address both macro and micro conditions. And he was not afraid to identify practices or attitudes among the poor – however easy to rationalize as responses or adaptations to externally-created conditions – that he thought limited mobility. At times he made a point of distinguishing between the poor and those he believed to be living in a subculture of poverty. While he assigned highest priority to policies that alleviated poverty and provided universal access to health care and higher education, he always maintained that, for a certain subset of the poor, income and access polices alone would not end patterns of behaviour that could impede mobility for younger generations. Therefore he advocated varied programmatic approaches to the eradication of different types and degrees of poverty[22].

Yet Lewis never made clear in his published writings how he would distinguish between systemic and institutional factors (and what could be addressed though reform in health and education policies and wage and opportunity structure) and idiosyncratic family and cultural factors (and what required lifestyle changes and interventionist policies). In fact he obscured these distinctions by classifying everything observed and recorded as culture traits, simply because culture is what anthropologists are supposed to study.

This was a self-inflicted wound. Lewis was a full-tilt practitioner of the holistic method and his field material allowed for fuller, more specific generalizations than he was willing or able to make. In fact few American anthropologists have collected data on a similar scale. Clifford Geertz (1988: 3) has written that if quantity determined rankings among anthropologists, Oscar Lewis might be 'king'. The Puerto Rican data used for this paper is a subset of approximately 6 tons of field materials and correspondence from Mexico, India, Cuba and other sites that Lewis left at his death.

Readers who know only his later widely-read family studies may think of Lewis working primarily from taped interviews and be unaware that, for all the art in presentation, he was an empiricist and a champion bean counter. He was a serious student of household economy and material culture, who paid exceptional attention to the informant's physical milieu. He inventoried, item by item for hundreds of informants, every household possession and piece of clothing, how each was obtained and at what price. He tracked all income and expenditures, and all gift-giving and receiving in the principal households he studied. He trained local fieldworkers who could mingle as peers with informants and enter their households unobtrusively to observe and record all activity during the course of a day or evening and transcribe all conversations, repeating this exercise multiple times for some families.

He was very interested in structure – how all the parts were related to one another. He wanted to know how a village was situated within its region, the nation or the world; how a household was positioned in the extended family, the neighbourhood and larger society; and the individual within her household, extended family, workplace, or the community. As he interviewed, Lewis sketched genealogies, sociograms, site maps, and household layouts to help frame in his mind

how the individual fit into a given physical, social or psychological setting.

It must be said that Lewis would probably have been able to straighten out the confusion over the culture of poverty thesis had he lived. His correspondence contains many observations on what was wrong and how much needed to be done to sort out the many variables at play in his research. He designed a study of 100 households, within a much larger three-year field project in Cuba, which would allow him to compare the impact on culture of poverty made by the radical redistributive policies of a revolutionary government with the partial, meliorative policies adopted in the United States and the virtually nonexistent programs in Mexico. He wanted to know if the revolution was successful in eliminating capitalism, class stratification, and poverty as a relative condition, would the associated way of life he called a culture of poverty disappear as well? But Lewis died shortly after the Cuba project was terminated, having burned himself out at 56 by conducting one massive field project after another.

3. The problem

I first wrote about the limitations of the culture concept in explaining long-term poverty in an intellectual biography of Lewis (Rigdon 1988). The major part of that work was devoted to an explanation of why the culture concept, which was unquestionably integral to the organizational and descriptive aspects of Lewis's work, had limited utility for generalizations about the causes of long-term poverty. I wanted to illustrate how the definitional elasticity of the culture of poverty thesis allowed its reshaping in the hands of every user, and how the subsuming of source conditions (e.g. the physical environment, political and economic systems) and idiosyncratic factors (e.g. health histories and family psychodynamics) under the rubric of culture left nothing outside the box.

As a next step in that critique I decided to go back to Lewis's own data base and compile family case histories, extracting all the data for as many generations as I could on variables that clearly contributed to family economic status, and from there to try to sort out cultural from non-cultural factors. I began with the Puerto Rican archive because it had the richest collection on the greatest number of families and because follow-up work was possible. Furthermore, from interviews the field team had conducted with early settlers of San Juan's La Perla sector, I would be able to build up a history of the community where most of the informants had settled after emigrating from the countryside, and from which many left for New York. This would allow an examination of family fortunes in the context of the community's rise and fall.

I began the analysis with these questions in mind:

- What are the points of greatest similarity within these poor families over time and what accounts for them?
- What is the range of inter-and intra-generational difference in method of coping with poverty in a single family and what accounts for this?
- What is the range of difference in the method of coping with extreme poverty among families within the same community and what accounts for it?
- What is the impact of health status on the method of coping with poverty?
- What has been the difference in life outcome for members of a family who remained in the countryside and those who migrated to San Juan or New York City?

4. The data base

The initial survey phase of the work in Puerto Rico was carried out in 100 households (n=600) in four San Juan Barrios, and 50 related households (n=198) in New York the following year. I used only that material gathered on households included in the second, or family study, stage of the research. This phase included seven extended families, encompassing more than fifty households (n=157) in San Juan and New York City, and including eleven of the original twenty-two households surveyed in La Perla. The selection of families for intensive study was based on distinctions in family structure, background, and economic condition (as revealed on the basic household census questionnaire), and willingness to participate. The overall project was designed in accordance with Lewis's signature comparative approach, and had as its primary objective to test the 'subculture of poverty' thesis in an American context.

For reference in preparing the genograms I had about 25,000 pages of data collected over the six-year period from 1963 to 1969. They consisted of questionnaires, interview transcripts, day studies, household budget and income studies and material culture inventories. Attempts to get funding for follow-up work in San Juan and New York were unsuccessful. Thus, for updating after 1970, I was limited to scattered information on income, education and health provided by

Francisca Muriente, Lewis's primary field assistant in San Juan, who has continued to track a number of the principal informants, their children and grandchildren.

5. Strengths and weakness of data

The most transparent weakness of this data is that it is not statistically meaningful, thus generalizations must be suitably modest. Countering this weakness is the high reliability of the data, a product of Lewis's method; he used a battery of questionnaires but rarely trusted first responses[23]. Since he worked with most informants over a period of years, many questions were posed more than once to the same informants. Furthermore the same information was sought from multiple informants in each family. As a study progressed Lewis was able to correct much of the data gathered at the earliest stages of work.

Lewis did not employ any standard methodology for longitudinal research but most of his projects were multi-year in design. He also did periodic follow-up interviewing; his first interview on the Puerto Rican project was in 1963 and his last in 1970, a few days before his death[24]. During the course of any project he tried to interview at least one member of the family's eldest generation, and typically three to five generations were represented among the informants for each family study. In addition he reconstructed profiles for as many generations back as the eldest family member could report. In Puerto Rico the eldest informants at time of interview ranged in age from seventy to ninety, meaning they had been born between 1874 and 1894. Reconstructing their parents and grandparents generations put the genealogies earliest entries in the 1840s or 1850s. Predictably, the quality of data on the reconstructed generations is poor, rarely extending beyond places of origins and residence, work, size of family, and sometimes approximate educational level, age at and cause of death. And, unlike the data received from informants in a generation where multiple members were interviewed, it was very difficult to cross check data. But his method did allow for a general understanding of a family's economic position over a period of five or six generations. And the fact that the majority of urban informants had been rural-born allowed for urban-rural comparisons in standard of living.

6. Method of analysis

Any definitive critique of Lewis's thesis requires longitudinal data, given the assumption that attitudes, habits and behaviours that perpetuate poverty from one generation to another are passed along family lines. Because the information contained in the Lewis archive is so dense and complex, and much of it embedded in open-ended interviews, I thought it might be more accessible if some part of the data could be graphed. Because the point was to look at longitudinal data it seemed logical that graph be some type of family tree. The approach was suggested by McGoldrick and Gerson (1985), who illustrate ways to diagram family psychodynamics across generations. I thought the same format could be used to map SES and health data.

The first task I had was to construct genealogies for the seven extended families Lewis was working with after the survey phase of the research ended. Not long into the project I dropped one family because the material was not sufficiently deep and in this case there was no hope of collecting new data.

All detailed genealogical charts contained in the archive had been done in the second to fourth years of the research, whereas interviewing had lasted for six years. Therefore, all of the genealogies had to be redrawn to correct errors and omissions and add information collected in the last years of field research as well as that obtained in subsequent years.

The process of reading through the field data and sorting out the information took almost two years. I worked family by family, constructing partial genealogies from the information provided by each informant, and either adding the new material to a hand-drawn chart for the extended family or using it as a check on information provided by another family member. Some of these hand drawn charts grew to four feet in length.

Once a basic genealogy was drawn for a family I used it as the skeletal structure on which to chart information on: family and household composition; residence and migration; jobs and income; health histories; criminal records; and homogamy (specifically marriage within the family, or among several families in a single community). My goal from the beginning was to reconstruct the hand-drawn charts in graphics software so the family histories could be easily edited and kept current. Many technical problems developed with the charts, some of which would never have arisen with the graphics software now available[25].

The genograms were supposed to make accessible enough information to support a discussion on how to weight the

relative importance of various factors contributing to family economic status over time. The problem was how to get as much information on the charts as I needed to support this discussion without ending up with figures so cluttered that no one would try to interpret them. It was impossible of course to chart all information available on any one of the extended families in these complex studies. Had I charted all of the common law marriages and offspring for some informants, plus the partners' other liaisons and children, for example, the genograms would have been too cumbersome to handle. The temporary resolution was to divide the information topically and load it onto separate charts. To display health histories, I used symbols or abbreviations to indicate major health problems, such as alcoholism, diabetes, tuberculosis, rickets, asthma, IV drug use, and multiple miscarriages. For greater clarity, and to bring home quickly the point about the role of health (and inherited predispositions for some afflictions) in impeding upward mobility, I decided colour-coding should replace the symbols. When complete, this will allow a viewer to quickly see how many known cases of TB, for example, occurred in a family over 4 or 5 generations.

The high incidence of homogamy in two of the families was charted because it illustrates how cultural practices can intersect with biological factors to work against upward mobility (see section 8). The pattern in the two families – before migration to the city – was to marry cousins or other relatives living nearby, or to find partners within several families that had been intermarrying for generations. Since almost all were sharecroppers or tenant farmers, or in very similar economic situations, marriage was rarely a vehicle for upward mobility. And when members of these families moved from country to city, they practiced a variation on this pattern, marrying within their barrios, relatives of in-laws, and former partners of relatives. In the Arriaga family, for example, sisters often married ex-brothers-in-laws.

7. State of the work

Because of the technical problems, other work commitments, and the lack of funding for follow-up research, I called a halt to the project without reproducing in electronic files all of the charts I had begun by hand (19 of a planned 25)[26].

To carry the project further requires new data. The work planned for San Juan and New York would have filled in missing data for the youngest generation interviewed (born in the 1950s) and their children, and would have involved searching for death records on all principal informants whose cause of death I do not know. The write up was to be presented within an account of La Perla's founding and evolution over the 20th century (since the late 1980s its population has been ravaged by HIV/AIDS).

The ultimate goal is to gather comparative data in Cuba on former residents of Havana's Las Yaguas sector and their descendants. Las Yaguas had been as notorious in Havana as La Perla was in San Juan until Castro had the barrio razed to the ground, the population divided, and resettled in eight different Havana *repartos*. Because these former Las Yaguans were informants for Lewis's study of the culture of poverty in a socialist setting, a comparison of life outcomes for La Perla and Las Yaguas families could facilitate the evaluation of systemic and cultural factors at work in long-term poverty.

8. Findings

First it is necessary to say something about the experiment in representing cross-generational family data on genograms (see Figure 1 for an example of a genogram). At this stage the jury is still out on how helpful they might be to others in interpreting the wealth of data in Lewis's archive simply because I have not completed them or circulated them for comment. However, sorting out the information needed to prepare them did help me in the analysis of the data and to find patterns within families and across families. I do think they can be used to make a few points in a quick and forceful way, especially the relationship between health and poverty. When one sees that over several generations in a family many of the principal wage-earners suffered from treatable (yet untreated) diseases such as tuberculosis, diabetes, rickets, and mental illness, it becomes quite clear that health factors alone could have rendered many of the individuals unable to improve the families' economic fortunes.

Creating the genograms was a very labour intensive way of making a fairly simple point, but today when most researchers take laptops into the field with them, everything can be sorted and catalogued at the field site. For accessing these huge data bases collected before the computer-era, however, there is little alternative to the hunt and peck method, unless the material can be digitised and searched using content analysis software.

The analysis of the Puerto Rican data allowed for a detailed family by family

comparison on income and occupation, family structure and household composition, and educational attainment. Here I omit that detail in favour of stating general conclusions. After constructing the six family profiles I found the strongest similarities among the pre-urban generations: nature of employment in the rural economy, housing, diet and dress, child-birth and rearing practices, incidence of opportunistic diseases associated with rural poverty, marriage patterns, size of family, educational and skill levels, religion, and strength of identity as Puerto Ricans[27]. Differences were more noticeable among the families after they migrated to San Juan, where distinctions began to emerge in occupation, income level, housing, religious practice, and incidence of violence and criminal behaviour. The explanation lies in the greater number of economic options ('options' being more accurate than 'opportunities') and the wider latitude for behaviour in La Perla. The limited occupational choices for unskilled workers and the control of the family over its members in small rural settlements had a greater levelling effect on social and economic behaviour than the economy and community life of an urban shantytown.

Distinctions in health, mental capacities, family unity, and social skills, for example, had an even greater impact on economic outcomes in the opportunistic sub-economy of an urban ghetto like La Perla than they did in the countryside. Exposure to urban life, especially the social and recreational activities in the community, diluted the influence of the family on children, even while they still lived at home.

This observation contradicts Lewis's claim that the family was the main agency of transmission of a set of self-limiting culture traits. At the same time, however, if the principal agent of socialization had been greatly weakened once transplanted from country to city, it would support Lewis's claim that new migrants to urban ghettos were vulnerable to rapid re-acculturation. But did La Perla embody an alternative way of life and a 'ready-made set of solutions', as Lewis suggested? Were young people, by the age of 'seven or eight', socialized into a set of values and behaviours that would make it difficult for them to improve their economic condition, even when presented with opportunities to do so?

La Perla never was as homogeneous a community as the phrases 'culture of poverty' and 'slum culture' suggest. It began as a squatters' settlement where people staked out housing sites on beachfront land to be near work opportunities: on the docks, in the slaughterhouse, and in nearby laundries, restaurants and bars. It's sea wall and beachfront boundaries, its distinctive housing and location, gave the community the appearance of separation from greater San Juan but it was as vulnerable to battering by larger social and economic forces as it was to high tides and hurricanes. Growing concentration of land ownership, changes in export markets, Prohibition, the Great Depression, the increasing U.S. military presence in Puerto Rico, post-war foreign investment, increasing drug use, all affected the flow of migrants into La Perla and the ways in which its residents earned their livings. The nature of life in La Perla then was like that in most places which are not isolated or cut-off from outside forces: it was in flux.

At the time of the Lewises' field study, the population of La Perla still included people who had come during the community's earliest days as a squatter settlement and it was still a place of distinct residential sectors, each with its own ambience. It was a community where workers employed at the margins of the mainstream labour force lived with one foot in an underground economy that was the sole support of some of their neighbours.

La Perlans themselves were in a state of transition. All but seven of the adults in Lewis's original survey had been born elsewhere. Rural migrants to La Perla often saw a sharp rise in their cash income, while long-term residents who had come to La Perla to work in the slaughterhouse or on the docks but who were no longer able to work, due to age, illness, or job-related disabilities, had declining incomes. Furthermore, a number of people who settled in La Perla after the 1940s were in states of physical, mental and/or emotional deterioration and unable to function in mainstream society or economic life. La Perla was their place of last resort.

Near the end of his research Lewis argued that communities like La Perla attracted people with high levels of psychopathology who came "from rural families where the traditional forms of control were already weakening or breaking down...."[28]. Is it possible for a community like La Perla to evolve and transmit a distinctive subculture when it is in constant economic transition and its population base is shifting from the working poor to the physically and mentally disabled and the criminally deviant? In La Perla's sub-economy, where people lived by their wits, openness to change and

INSERT DIAGRAM HERE

maximization of every small opportunity could mean the difference between subsistence and malnutrition or even life and death. But survival strategies devised to cope with immediate conditions are not cultural unless they are learned responses handed down from one generation to the next. There is a real question whether in a rapidly changing economy and urban environment and with a high level of out-migration, primarily to urban areas in the continental United States, the same kind of micro-strategizing could work over a period of even a single generation.

One needs not only longitudinal studies to sort out the role of culture in impeding upward mobility, but also some methodological means for disaggregating the political, economic, health, and other factors that are subsumed under the culture concept when it is used in its 'comprehensive totality' sense. How extraordinarily complex this problem is can be illustrated by taking just one of the informants for these family studies and trying to account for her life outcome. How can we weigh – in the life of Lola Figueroa, for example – the influence of macroeconomic and political factors, culture, genetic endowment and idiosyncratic elements in family history, nutrition and environment? Lola's sharp wit and intelligence shine through in interviews conducted when she was being consumed by tuberculosis. Sent to work in the coffee harvests as a child, with no chance at an education and in misery all of her life from paralysing seizures and violent fits of temper, Lola never found an outlet for her energy or intelligence. Defiant and unwilling to accept a life in domestic service as the alternative to farm labour, she survived several suicide attempts only to destroy herself in prostitution and alcohol.

What relationship does Lola's life outcome have to the culture/subculture she lived in? About her socialization in rural Jayuya it can be said that it took place in a chaotic household headed by an incompetent mother and a drunken step-father who molested Lola and some of her half-sisters. Idiosyncratic aspects of this upbringing were probably influential in shaping personalities that made life in domestic service intolerable for Lola and her sisters and turned them to prostitution (informants Paula Ramos, Berta Acosta, and Matilde Gómez were in similar economic situations and never relied on prostitution to earn a living). But it is also true that the urban economy offered few job opportunities to illiterate women.

About Lola's health history we know there was a biological predisposition for alcoholism and clinical depression in the family, which help explain Lola's alcoholism and multiple suicide attempts, but her (biological) vulnerability to both may have been increased by the cultural practice of intrafamily marriage. There are, in addition, class or income-based theories of why someone of Lola's economic status would be at high risk for mental illness or emotional instability (Hollingshead and Redlich 1958). The Puerto Rican syndrome, another of Lola's debilitating illnesses, has been explained in terms of both culture (child-rearing practices) (Fernández-Marina 1961) and biology (diet and environment) (Wallace 1972). Despite the causes, all of the illnesses Lola suffered from were preventable or treatable; the fact that little medical care was available to her until late in life was a structural condition. But when treatment *was* made available for tuberculosis, the disease that finally took her life, Lola refused it, either unable to tolerate the restrictions and regimen of the sanatorium or perhaps convinced it was too late for recovery.

Like the dearth of economic opportunity and the inadequacy of medical care, the lack of educational opportunity was certainly a systemic problem. Yet the unwillingness to educate girls even in the elementary grades that were available was cultural (although not peculiar to a subculture of the poor). Because Lola was not well and because the system presented her with virtually no educational or economic opportunities, it is a misplacement of emphasis to single out the role of 'culture' in shaping her economic fortunes. Why define work habits, for example, as traits of a subculture when the structure of the national economy defines the range of employment opportunities, the educational system limits options, and the lack of medical care for disabling diseases leaves people unable to work? Granting its utility for making sweeping descriptive statements, 'culture', when used to mean a whole way of life, has little analytic potential.

The year before he died Lewis wrote in a letter that he no longer cared whether people called that mode of living he labelled 'a culture or subculture of poverty', a 'no culture' or 'phenomena x'[29]. Of these I prefer 'no culture', because 'phenomenon x' implies a single effect, if not a single cause. Lewis's informants did not share a personality construct, a subculture, or even an absolute economic condition (their incomes ranged from destitution to lower working class). What they did share was a living space, and the condition of living at the margins: of society, of the mainstream economy (but in states from

subsistence to solvency), and of physical and/or mental health. But there was no single reason why La Perla's residents came to be living in the same community, no one cause of their deviance from or marginality to cultural or economic norms. They lived in tolerance of one another but not in an understanding that they shared a coherent set of values or way of life. In this sense La Perla is more accurately seen as a society of people who were poor rather than as the locus of a subculture of poverty.

To some of its residents La Perla was a kind of solution to the residence and employment problems created by their inability to conform to cultural norms. The community allowed much more latitude in ways of coping, if only in the sense that some of its residents could not prevent the acting out of a wide range of behaviours by others.

La Perla was also a kind of solution for mainstream Puerto Ricans who did not know how or want to cope with the people marginalized by macroeconomic and social factors or by some combination of economic condition and idiosyncratic family and health factors, or to deal with the causes and consequences of deviant lifestyles. La Perla became a refuge or retaining area for people who could not integrate into the economic or social mainstream, due to a combination of low educational level, lack of marketable job skills for the urban economy, criminal deviance and/or poor state of physical and mental health.

9. Summary

In theorizing, Lewis focused too much on the family as a social system and not enough on heredity, state of health, and family's position within the community. In doing so he made families, but to a lesser extent individuals, seem, in theory, almost equally vulnerable to the effects of poverty. The capacity of individuals and families to cope with extreme deprivation depends in part on their genetic endowments and how these endowments are mediated by general and family-specific environmental conditions, and families' access to, and ability to utilize, public or private resources to mitigate or offset their own economic condition or hereditary problems. For example, poverty often greatly restricts opportunity, but it is more likely, where mental and physical health are intact, to channel than to level industry and ambition. Where health is not intact, due to untreated illness, or malnutrition, or neglect by family and community, then the consequences will be even more grave than those posed by restriction of opportunity alone.

Finally, the capacity of families to socialize their children may vary not only with the clarity and coherence of their values and their economic stability, but also with how families are articulated into their communities and how they and their communities are articulated into the larger society. It is these interconnections that are left unexplained in the culture of poverty thesis.

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Longitudinal Panel Studies in Squatter Communities: Lessons from a Re-Study of Rio's Favelas: 1969-2003

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1. Context

Since 1969 Brazil has undergone major political transitions from dictatorship to 'opening' to democracy; major economic transformations from 'miracle' boom to triple-digit inflation, to bust to precarious stability; and major policy changes from favela removal to upgrading and integration. It appears that the cumulative effects of macro-level gains, poverty programs, and community efforts have not significantly reduced urban poverty. In fact, both the absolute number of poor persons and the percentage of Rio's population living in favelas have consistently increased over these three decades, as has the degree of inequality. By following the life trajectories of individuals interviewed three decades ago and their descendants, and by re-creating the histories of the three squatter communities (favelas) they lived in, we hope to better understand the dynamics of the inter- and intra-generational persistence of poverty and social mobility. By looking at four generations (original interviewees, their parents, their children, and their grandchildren) we can explore what endogenous and exogenous factors made a difference in breaking the poverty cycle over time.

2. Research objectives and conceptual framework

This paper addresses the methods used, problems encountered and solutions utilized in the process of re-locating and re-interviewing squatters who had participated in a study during 1968-69 in Rio de Janeiro. The original research (Perlman 1976) involved living in three favela communities and interviewing 200 randomly-selected residents (men and women 16-65 years of age) and 50 leaders (positionally and reputationally selected) from each. The first community, Catacumba, in the up-scale residential South Zone was forcibly removed in 1970 and the residents relocated in public housing projects (conjuntos) distant from the city, including the infamous City of God (Cidade de Deus). The second, Nova Brasilia, in the industrial North Zone, is

part of the notorious Complexo do Alemao, where journalist Tim Lopez was tortured and murdered and is one of the last areas untouched by the widespread upgrading project, Favela-Bairro. In the third site, Duque de Caxias, in the peripheral Fluminense lowlands, half of the interviewees were favelados (selected in a proportional random sample among the three existing favelas) and half were owners of small-unserviced lots in the five poorest areas of the municipality. (One of these favelas, Beira-Mar is now also famous because it is the neighbourhood of Fernandinho Beira-Mar, thought to be the most powerful drug lord in Brazil.)

Now, three decades later we are conducting a re-study whose objectives are:

- To understand the intra-and inter-generational dynamics of urban poverty
- To explore the changing mythology and reality of 'marginality'
- To trace life history patterns against macro political and economic transformations
- To test the mediating effects of civil society and social networks, and
- To see the effects of local, national and international public policies.

A schematic diagram of the Conceptual Framework (Figure 1) can be found on the next page. To see how the goals and objectives of the research are translated into tasks, outcomes, and products, see Table 1 'Goals, Activities and Outcomes' on the following page.

Figure 1.

The Dynamics of Urban Poverty and Implications for Public Policy
A longitudinal study of Rio de Janeiro's poor

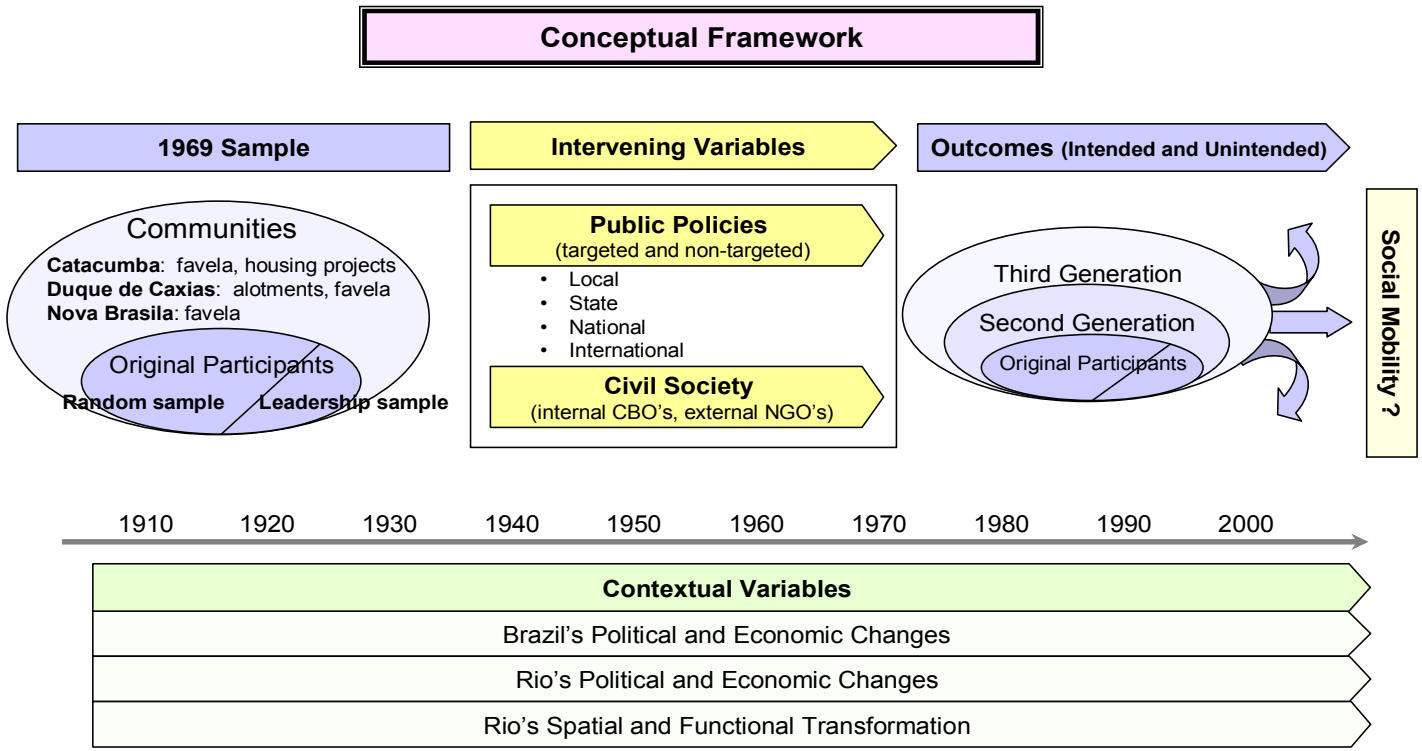


Table 1. Goals, activities and outcomes

Goals	Objectives	Tasks	Products	Outcomes
• **To understand the dynamics of urban poverty and mobility** • **To understand the new reality and articulate the new meaning of marginality** • **To explore the effects of public policy on low income individuals, families, and communities** • **To trace life history patterns against major political and economic transformations and urban evolution** • **To test the mediating effects of civil society and social networks** • **To better inform decision-makers about poverty reduction**	• Trace the life trajectories of favelados over 30 years • Track the evolving meaning of marginality (e.g., in US, Europe and Latin America) in terms of 'new poverty' and 'new marginality' • Identify coping mechanisms and survival strategies for overcoming poverty • Train and employ favelados along with university students for research team • Evaluate the impact of public policy on the urban poor in Rio • Explore the role of NGOs and community-based associations • Convene stakeholders and policy meetings to test results and disseminate findings	1. Analyse life history data 2. Review Literature on marginality and poverty 3. Track Descendants (children and grandchildren) 4. Draw New Random and Leadership Samples from Original Communities 5. Select Policy-control Favelas (for random sample) 6. Add favelas and clandestine irregular settlements in West Zone 7. Field Interviews 8. Finalize Contextual Research 9. Coding of Life History Data, Questionnaires, and Interview Results from new samples 10. Data Analysis 11. Draft Report 12. Ground truth sessions with informant communities 13. Prepare press and web materials 14. Brazilian Conference on Favelas 15. Regional and International Symposium at World Bank 16. Final Report(s) 17. Dissemination to Specific Target Audiences	• Longitudinal data on the life trajectories of Rio's favelados for use in other studies • Capacity Building: favelados trained as part of research team documenting their own reality • Course materials for World Bank Institute • Input into World Development Report 2004 • Policy briefings derived from research findings • Special issue of journal on favelas and public policy • Published articles • Book	• Larger **Knowledge Base** and refined theoretical framework on factors that shape and perpetuate urban poverty • **Clearer Understanding** of the role local, national, and international policies play in lives of the urban poor • **Increased awareness** and capacity of favelados, community organizations, local officials, and non-profit sector • Improved **allocation of scarce resources** for reducing urban poverty and inequality • Creation of **new Methodology** for use in longitudinal studies of inter- and intra-generational dimensions of urban poverty and mobility • Stronger basis to **design policy** and to evaluate long term effects of policy interventions • **Learning and scholarly community** focused on urban poverty

The idea was to use the original 1968-69 data set, locate as many of the original 750 participants as possible, and re-interview them as well as their children and grandchildren to trace life trajectories across time and space. The study combines qualitative and quantitative methods and is divided into three phases:

i. Phase I: exploratory research

To assess the feasibility of finding original interviewees, difficulty of access to the communities, and receptivity to participating in the re-study. We conducted a series of open-ended and semi-structured interviews with 'survivors' from the original sample, collecting their personal narratives, and beginning to see how they described their experiences over this period of time, what was recalled and not, what were the benchmarks in their own lives and that of the communities, and what meaning they assigned to words, concepts and images.

ii. Phase II: implementation – interviews using survey Instrument and Life History Matrices

We re-interviewed 262 out of the original 750 study participants, and we are now in the process of interviewing a random sample of their children 16 years or older (394 out of 1005) and beginning to draw a random sample of their grandchildren (16 years or older). The reason we decided to include grandchildren, despite the drop in numbers, is that we suspect that some of the mobility the original interviewees expected for their children when they decided to migrate to the city, has only begun to show up in the next generation (grandchildren).

This phase also included contextual interviews and participatory collective reconstruction of community histories (using a methodology called DRP – Diagnostico Rapido Participativo) as well as leadership interviews with old and new leaders on struggles past, challenges present and what has changed over time. We videotaped several of the interviews, the DRPs and key moments such as three former leaders of Catacumba returning to the abandoned park that was the site of their homes and discussing their recollections of growing up there and the politics that led to their eviction.

***iii. Phase III: new random sample in communities and matched policy favelas* (not yet started)**

This will involve drawing new random samples in the original communities and applying the same survey instrument and life history matrix, enabling us to compare the communities at two points in time, and to assess bias in the sub-sample we are following.

We also intend to select similar favelas with opposite policy interventions and compare the lives of residents in those with our original communities. For example, we will select a South Zone favela that was not removed and had similar relevant characteristics as Catacumba back in 1968; and pick a North Zone favela similar to Nova Brasilia back in 1968 that has benefited from a series of upgrading programs including Favela-Bairro.

3. Concepts of poverty, inequality, marginality, exclusion and mobility

The literature provides us with enlightening discussion on the above concepts. The excellent literature review by Yaqub (1999: 7) provides one of the clearest discussions of trans-generation persistence of poverty. He concludes that 'studies are hindered by the lack of multiple generation data (covering offspring and parents) and panel data (tracking the same individual over time)'. For the purposes of our work Hulme (2003: 3) also provides most useful definitions and distinctions, starting with Amartya Sen's warning that "the category 'poor' is not merely inadequate for evaluative exercises and a nuisance for causal analysis, it can also have distorting effects on policy matters".

We are basing our understanding of these terms and their relationship with each other not only on the literature, but on the way they are used and understood by community residents themselves.

In short, we use, and have used from the beginning of the first study, a multi-dimensional perspective incorporating social, cultural, political, and economic components in our understanding of what it means to be poor, disenfranchised, excluded, stigmatised, etc. The concept of marginality has evolved along with the changing reality as I discuss in Perlman (2003). The idea of choice, freedom, citizenship, voice, dignity, rights, responsibilities have all come to the fore in this new discussion

4. Indicators

The work is based on multi-generational life trajectories. We have limited data on the parents of the original interviewees (place of birth, level of education, and principle occupation) and more robust data for each of the original participants and for a randomly-selected sample of their children and grandchildren over 16 years of age. Our questionnaire to the interviewees contains the following sections:

- *Control*: basic information on the education, occupation, contribution and participation of the entire family group and the household members.
- *Year-by-year Life Histories Matrix* (based on the original methodology of Balan, Browning and Jelin 1969) which track changes in residence, occupation, education, family status and (from 1969 on) health. We are trying to track the life fluctuations and detect periods of upward and downward mobility in both absolute and relative terms.
- *Domestic economy*: includes assets and income sources, the nature of the residence and collective urban services and monthly expenditures of the household unit.
- *Social capital*: includes friendship and kinship networks (nature, extent and frequency), association membership, and participation in community activities.
- A section on *violence, police, drug traffic and personal security* was added to the questions on the use of public space in the original questionnaire.
- *Perceptions on public policy*: political information, perceptions and participation, on public policies, citizenship and contacts with various levels of government.
- *Social mobility*: we used some of the questions of Graham and Birdsall (2000) and the ladder from the 'Latino Barometro'. We ask a series of questions about *aspirations and expectations* (their own and those their parents had for them) and about how the person compares his or her own status to that of various reference groups – siblings, other community members, and those outside the community. We also use perception questions about *exclusion, stigma and discrimination*, and how some of these have changed over time.

5. Problems, approaches, and lessons learned

We encountered problems of many types including conceptual, methodological, technical and logistical. I will highlight a few of the major challenges we faced and how we overcame them in hopes that this will be useful for others embarking on panel studies under similar circumstances. A set of longitudinal panel studies in squatter settlements from different cities and countries would indeed be a powerful resource for addressing the unanswered questions about persistent poverty and social mobility and the policy implications thereof.

i. Re-locating original interviewees

We faced several serious difficulties in relocation, including the fact that 30 years had passed; that one of the communities had been removed and the residents scattered into several public housing projects; and that in the interests of confidentiality during the height of the dictatorship, we only asked for first names (except in the cases of the leadership sample).

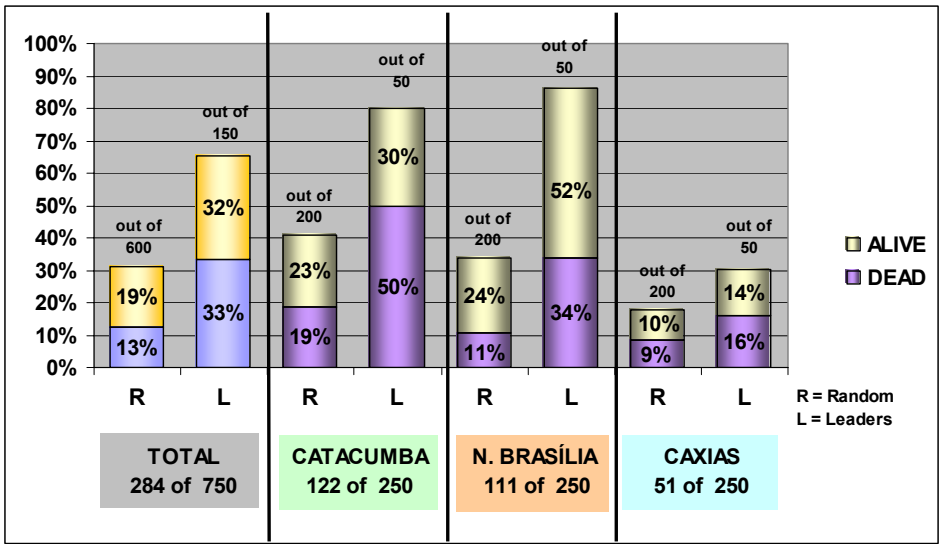
Our approach: I started by re-contacting and visiting my closest friends and the families with whom I had stayed during my time in the communities. I had maintained contact with them over the years and was able to find them easily and ask for their help. It was readily obvious from the start of Phase I that university students would have an impossible time trying to re-locate the families, so we composed teams of community residents, often the children or neighbours of original study participants. We developed a training program for them and a form of remuneration based in part on hours worked and in part on successful location of original participants.

They started at the original address and if the person was no longer there asked for any leads or information. (It is interesting that 50% of those we found were either in the same house or in the same neighbourhood, so that made part of our task easier). If no information was known, however, they went to the neighbours on both sides and the opposite houses. If no one remembered the person or family, they went to the various community organizations, churches, local hang-outs, etc. We even created posters with the name of the study saying 'we want to find you again' showing a photo of me in 1969, the drawing that was the cover of the book, (which many had been given as gifts or seen after its publication) and giving our office address and phone number. We also attempted to have original participants contact us, using announcements on the local community radio stations and the local newsletters, although the results were limited.

Lessons learned: We found a counter-intuitive result – the percentage of people relocated was highest in the very community we expected it to be lowest (Catacumba, which had been removed in 1970) and lowest in the place we expected it to be highest (Caxias, where half the interviewees were land owners). The reason for this is the strength of social networks. The Catacumba residents who had fought so many collective battles for water, electricity, sanitation, street paving and finally against removal had much more powerful bonds, despite their geographic separation. Those in the loteamentos did not participate in collective struggles for urban services, did not form many community organizations and, in large part, did not know their neighbours. When a family moved out, the sale was a purely market transaction and few kept in touch with the former owners. Things were made worse by the fact that many of the names and street numbers had been changed and some of the names of the neighbourhoods as well. Favelas have a living memory that private property does not.

This explains Figure 2 showing the figures of relocated people from each community. Clearly, we had a much greater success rate with the leaders, not only because we had their last names, but also because they were widely known.

Figure 2. Relocated people from each community



ii. Dealing with original interviewees who have died

As Figure 2 also shows, we were unable to locate the families of many of the original participants, even those who had passed away. What we did in this case was to fill in the Life History Matrix using triangulation in reconstructing the person's residential, occupational, educational, family and health histories, working with the spouse and eldest children. Of course, we could not apply the questionnaire in these cases, but we did include all of their children in the running list of the next generation and sampled them proportionately.

iii. Verifying the identity of the re-located individuals

In the middle of our interviewing process, we discovered a daunting problem. As the data from the Life Histories and Questionnaires was being checked for consistency before coding and digitising the results, we noticed that some of the information did not match the profile of the original person interviewed. Some were the wrong age to have possibly been included in the original sample, for others the birthplace of the mother or father did not match, etc.

Our approach: Once we realized that there had been some misidentification of respondents, we halted the coding and went back to systematically review each person identified, using key variables for determination. We found 45 falsely identified individuals, all with the same first name as the original respondent. Two modifications were consequently made in our procedures: we used the data from the Life History Matrices from 1969 to cross-check the validity of each of the persons identified thus far, and we added several other pieces of information about the original respondent to the packet of information we gave to the field team doing the search.

Lessons learned: This revision cost us precious time and money, so we recommend future researchers utilize a rigorous verification process from the beginning. Currently we are cross-checking key information (the age and gender of each child as well as the date of marriage) for each questionnaire that comes in from the field and calling the interviewee to check any uncertainties.

iv. Access to the communities and the problem of violence

Without doubt the biggest change in the research environment from the late1960s to the present is the expropriation of the space of the favela communities by drug-related gangs, vying with each other for control of the turf and engaged in armed battles with the police (who are also complicit in and benefiting from the drug and arms sales within the favelas). Among all of the challenges faced by the re-study team, that of violence is without doubt the greatest and most difficult to overcome. It had several negative effects in our research: i) The unwillingness of many researchers (even within the community) to participate in the study, and the drop-out rate of others. For example, the traffickers noticed that one of our team members who is a resident of Quitungo (a housing project where many of the Catacumba residents were re-located) was out visiting several apartments everyday and began to suspect she was spying for the authorities, so she was threatened and forced to leave the project. ii) Several families of original interviewees began to move out of their communities due to fear of being caught in the crossfire. Several had been in Nova Brasilia all of their lives and fled back to their or their spouses' hometowns; others had lived in the housing projects for 30 years since they were relocated there and left to rent apartments in outlying neighbourhoods, fearing that their children would become involved if they stayed. iii) Severe delays were caused in the fieldwork process as no one was able to enter the communities on the days the gangs were in armed battle or the police had decided to conduct a raid. The interviewers could not even leave their homes to apply questionnaires. iv) There was a high rate of refusal to answer questions about violence. The rates of 'do not know/do not want to answer' in questions related to dealers, police, or violence was up to 40% on some questions, compared with almost zero on most others. About ten families would not even give the names or locations of their children, fearing they might be involved with traffic.

Our approach: This re-study is dangerous work and must be treated as such. What we did to mitigate the danger was to negotiate access to the communities with the Leaders of the Resident's Associations (who are usually placed in their positions by the drug lords) and to visibly identify all team members for their protection. Each researcher was given a 'kit' including a bright turquoise T-shirt with the Mega-Cities logo, a photo ID name tag to wear around their neck with the name of the study, their name, the office telephone number, etc., a letter signed by me explaining the study and identifying the interviewer by name as part of the team, etc. We also called the interviewee each morning before anyone went to conduct interviews, asking if it was safe to come and when there was doubt, we re-scheduled the interview.

Lessons learned: No matter how careful you are there is the unexpected. We recommend sending interviewers in pairs and keeping them in close touch with the field supervisors[30].

v. Questionnaire

As the original 1968/69 questionnaire was a main part of our methodology and used in hypothesis-testing and drawing conclusions we were faced with the problem of how much to update it and how much to leave in its original form. We scrutinized the content, language, and underlying theoretical constructs. Some of the areas of concern which had arisen in the open-ended interviews were absent, such as violence. Other items which figured prominently in more recent literature, such as household composition and authority, were not covered in great detail. Many phrases and words sounded archaic and inappropriate. Our problem was to revise the instrument in such a way as to provide a basis for comparison between responses then and now, while adding new sections permitting comparison with current studies in the field. These studies included Moser's (1996) longitudinal study of household responses to poverty and Birdsall and Graham's (2000) work on social mobility.

Our approach: What we did was to eliminate the section on attitudinal modernity and try to update the use of words and phrases so as to be comprehensible. We also added several sections including one on violence, and a matrix of household composition and contribution along with more information about the expenditure patterns of the family. We also used the ladder of social mobility that was

recommended by Birdsall and Graham. The result is that we ended up with a very long questionnaire, containing 124 questions in addition to the Life History Matrix. This took over two hours to apply; and we are finding that, although the original participants have enjoyed going through it, the children often become impatient. We then considered shortening the questionnaire for the next generation and decided against it on the basis of lack of comparability.

Lessons learned: We would not use such a long questionnaire again; but, until we finish the analysis, we cannot say which items were really the most useful and provided most insight. Perhaps we might have done a second pre-test and analysis, but we were pressed for time and funds, so we went ahead after the first pre-test. In my original study, I did do a second pre-test of the revised questionnaire after the results from the first one were incorporated. We are also left with the problem that on the questions where we modified the language to sound less archaic, we do not have exact comparability. We have decided that for the new random samples in Phase III, we will go back to the original questionnaire and be as faithful as possible to those items we retain.

vi. Contextual questionnaire

We prepared a Contextual Questionnaire based on the one I had developed and used in the original study, and applied it to elders of the community and the former leaders. It was very problematic this time as each of the persons responding had a different perspective on the history of the community and remembered different events as important and different time periods for key changes. This presented a challenge of coherence and reliability which we were not able to overcome through newspaper accounts from the time (the favelas appeared very little at that time, except for removals) nor from books, theses or dissertations (none of which covered our communities).

Our approach: We needed a collective memory in order to reconstitute the history of each community and cross-check dates and events. We didn't want to impose what we considered the benchmark events in each place but see it from the resident's point of view. We decided to employ the DRP participatory methodology. It consists of bringing several members of the community together to interpret their own reality and concerns. We used an enormous time-line covering the entire wall, marking only key calendar dates starting with 1920, showing where 1968 would be, and going up to the present year. We let the participants fill in all the other years as they saw relevant.

The participants were given sticky pads and invited to write on them what they considered the most important events in the life of the community and place them on the time line. They ended up with several cross-cutting categories such as urban services, housing, drugs and violence, natural disasters, major political events, etc. There was much discussion and arguing back and forth about the exact dates and names and that is when people overcame their initial shyness and started to have fun with it. We took notes, did videotapes, and are using the brown paper scrolls with the sticky notes on them to write up the community histories.

Lessons learned: The people know best and together they know more!

vii. Memory

One of the major difficulties in studies done over time, especially such a long period of time, is the fallibility of memory and its selective nature, a problem deepened by the advanced age of most of our original sample. As we know, memory is a construct which is constantly being reconstructed. We are asking people to remember all their residential, occupational and educational changes over the past thirty years. We are trying to capture the messy ups and downs of real life, and the way people have coped with crises, and do this not for a handful of people but hundreds of people across generations. These data are difficult to collect, to code and to analyse.

Our approach: We have discovered that the Life History Matrix works quite well as an entry point into the interviews. It encourages the interviewer and interviewee to sit side by side and try to fill in the changes together, going back and forth in time and across categories. One item, such as the birth of a child, helps jog the memory on other items, such as place of residents; and likewise, a move to a new place is often associated with a change job or lack of work. This becomes a collaborative exercise which is often enjoyable and which uses triangulation to help fill in memory lapses. Our real challenge now is how to interpret the data as we need to control for normal changes in the life cycle as well as the cohorts that entered the labour force at a specific moment in time. Thus, the year of the event and the age of the person must both be present in the interpretation of upward or downward mobility. And, as we control for these sub-groups, the

numbers in each become smaller and thus the reliability weaker.

In addition, we are grappling with the reality that many changes are not for better or worse, but simply trade-offs maximizing different things. For example, should leaving the favela for a peripheral neighbourhood always be considered a step up, even if the person said they left not by their own choice but for fear of violence and that they are terribly lonely and isolated in their new setting? Likewise, should moving from a salaried job to working for oneself be considered a step down if the person is earning more or the same in the informal sector and has more freedom and flexibility? These are some of the issues we are currently discussing in interpreting our data.

Lessons learned: We are finding that the richer the data and closer to reality, the harder it is to draw simple conclusions or find coherent patterns. This is why our qualitative data and personal narratives are so important to the interpretation of our data.

viii. Bias

While it is most unusual to be able to re-locate over 1/3 of a sample after 3 decades, (262 people out of 750), there is still the risk that the 2/3 *not* located would present an entirely different picture, either much better or much worse, and that we are therefore unable to generalize from our findings. To this considerable risk of bias we add the possible distortion that the people we found alive from the original sample were the youngest age cohort.

Our approach: To try to measure our bias we compared three groups using the original 1969 data: i) living original participants who we have complete questionnaire data on for both time periods; ii) dead original interviewees for whom we have re-constructed Life Histories; and iii) all those from the original study who we could not find. Despite the age and community biases, we found the three groups to be fairly homogeneous, giving us confidence that we were still dealing with a relatively representative sample. There was a slight tendency for those found to have higher family income, more access to services, have more children, and be more integrated in their communities but the differences were not significant. We might still wonder whether those who remained in the same communities and were therefore easiest to find, were the failures who couldn't make it out, or the successes who did not end up on the streets.

In order to check on this we made special efforts to interview all located participants. I even made a trip to Joao Pessoa, Natal, Brasilia, Belo Horizonte, Sao Paulo and Porto Alegre to conduct interviews with the one or two individuals we had located in those places.

Lessons learned: We cannot reach definitive conclusions without the benefit of Phase III, in which we will draw new random samples in the original communities. That will give us the ability to compare what has happened in the communities at large with what has happened in the lives of those we found from our sample. By selecting matched favelas with opposite policy interventions we will also be able to give policymakers more guidance as to what was effective.

ix. Multi-generational portraits

The other thing I am doing in order to get a sense of how the selection of random children within a family can affect our perceptions of the next generation, is selecting one leader and one random-person from each of the three communities and visiting the homes and workplaces of each of their siblings, children, and grandchildren. I started this last summer and will continue it this July and August. I will also interview in depth the 'outliers' i.e. those people who were at the top of the heap in 1969 and are now at the bottom, and those who were at the bottom and have risen to the top. This will provide additional insight as to what factors account for the extremes of upward and downward mobility.

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A Town in South India: Two Decades of Revisits

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'My fascination with the energies exploding inside the bazaar always delays me...'[31]

1. Introduction

In 1973 I spent a total of 9 months conducting research on the grain and agricultural inputs trades in a region on the northern Coromandel Plain (Harriss 1981), eventually homing in on one obscure market town as a place in which to examine a set of cherished nostrums about rural-urban relations (Harriss 1976; 1977). In 1982-3 and 1983-4 John Harriss and I spent a total of 5 more months repeating our urban fieldwork of a decade previously, but in an entirely different theoretical context, institutional environment and set of practical domestic circumstances (Harriss and Harriss 1984; Harriss 1987a; 1991). 1993-4 and 1997 saw me return to participate in, to direct and to collaborate on a resurvey, twenty years on (Basile and Harriss-White 2003). The data base on the urban economy was updated, with further changes in some of the objectives, in the institutional environment and in practical circumstances.

Since there is little to be gained by way of replicability or 'lessons' learned from a study which is so highly burdened with idiosyncrasy, this paper has limited objectives. These are first, to chart the objectives, and second, to summarise the most significant findings in relation to both the planned objectives and the unexpected surprises and third to reflect on the three institutional contexts and the changing status of the fieldworker in small town India. The first two objectives will be treated historically and together. They will take the bulk of the paper.

2. Parasitic and generative urbanisation – 1973

Our initial fieldwork was inspired by several theoretical concerns. In retrospect, there were four. First, scholars as different as Isard (1960) and Harvey (1973) had remarked upon spatial regularities in the shifts of capital which accompany economic development. Generative urbanisation could be observed to give rise to economic growth. This positivistic, and somewhat circular, observation gave rise in turn to a normative, supply-driven 'theory' of growth centres or growth poles at about the point in Indian history when attention was turning from scarcities in agricultural production (and the possibilities of a total factor revolution there) to the post harvest system, the non-farm sector, rural 'service centres' and small market towns (Government of India 1959; Faulkner et al. 1963). The concept of towns as growth centres captured the imagination of the National Institute of Rural Development, the Ford Foundation and the Planning Commission. Agricultural market centres could be seen as organised into spatial hierarchies. Of some urgency for policy was the insertion of agricultural inputs, of 'market services', of incentive consumption goods, even of modern 'styles and images' at appropriately decentralised locations in a local central place hierarchy. In addition the successful creation of decentralised economic activity would intercept rural-urban migrants deprived of employment by the capital bias of technical change. Growth centre policy required public investment to plug the spatial and functional gaps in settlement hierarchies. Such public investment would be additionally justified by the multiplier effect it provided in the private sector and by the synergistic smoothing of the urban population pyramids provided by immigrants to targeted sites. Population thresholds were to be determined for every planned 'service'. Understandably, this procedure was heavily biased towards government investment. It was neglectful of, or ignorant about, 'private sector services'. A 'market' (presumably a physical place) was conventionally classed as a category on a par with a 'health centre' (Wanmali in Hazell and Ramasamy 1991). So it seemed natural to wish to speculate about the reasons for, and consequences of, the neglect of private business and about the assumed direction of development: public to private, urban to rural.

Second and closely related, a set of commodity flow matrices had been assembled (mainly for the U.S.) and published as precursors of the inter-industry, interregional input-output models on the basis of which the sectoral (rather than the spatial) impact of new investment could be tracked – or the minimum investment to achieve regional income, output or employment goals could be computed (Chenery 1954; Hirsch 1963; Isard and Smolensky 1963). Since urban centres and their spatio-economic hinterlands were not conventional accounting units, such exercises threw out a very basic challenge concerning the nature of 'regions' (Harriss 1987b).

Third, and in radical contrast to growth centre theorists, historians of India had identified forms of commercial urbanisation which they termed, after Kautsky, 'parasitic' (Chattopadhyay 1969). By this was meant two things: first, a primary process of Junker (or 'merchant') rather than American (or 'peasant') capital accumulation and, second, a process of urban realisation of surplus which was not reinvested in productive circulation but sunk instead in consumption. Such a provocative interpretation of Indian urbanisation clamoured for field testing. Did consumption dominate production in the urban economic base? Was this a useful distinction to make, since all consumption requires production? Were there net transfers of capital from rural to urban areas? Were towns increasingly unhitched from their hinterlands, enriching themselves at the expense of the agricultural economy?

Fourthly, during a long spell of fieldwork on the role of markets in the social and economic transformations accompanying the introduction of High Yielding Varieties of rice, it became apparent that traders' credit was playing important roles not only in technical change in paddy production but also in tying the subsequent market surplus. The question whether non-agricultural traders' credit was both sustaining and tying consumption in the way agricultural traders' credit sustained and tied smallholder production was the final trigger for the study of the economic base of an entire market town.

Faced with these theoretical issues and with 5 person months of field time to spare, John Harriss and I embarked on a study of the economy of a market town to see what light could be shed. Tamil Nadu is peculiarly rich in market towns, those above 15,000 in population size being specialised in trade and administration and those above 30,000 also having factory and workshop industry. The town we chose, Arni, was a minor administrative centre, a major paddy marketplace, had a growing workshop industry producing hand-woven silk saris and a population of about 39,000 in 1973. Most market towns in what used to be called North Arcot District[32] had additional specialised workshop industry (Vandavasi made reed mats; Tiruvannamalai made, marketed and repaired electric pump sets; Arcot had 'modern' industries of sanitary ware and fertiliser-mixing; Vellore was a centre for leather exports and [increasingly] leather manufactures, also sugarcane and rice). In contemporary terms, they bristled with industrial clusters and had done so for decades, so Arni seemed to be as appropriate a site as anywhere else (for there can be no 'typical' town).

Our findings then set the agenda for a comparative study of a market town in Sri Lanka by me in 1974 and the subsequent revisits by both of us to Arni one decade later, by me in 1994 and by several other scholars subsequently[33].

Findings

With respect to growth centres I used the complex pictures we found in a single town to present a critique of growth pole theory and a questioning of plans for India based on it. The hinterland of the town in the early seventies was revealed as a fiction of western space-economists and planners. Instead firms had clients, the spatial distribution of whom was affected by social factors and marked by considerable uniqueness. Social networks minimising total transactions costs mean access patterns which did not minimise crude distance and transport costs. Poorest people did not use towns *not* only because they lacked effective demand for higher order urban products but also because a socially separate commercial system existed (for the goods also sold in town) for poor and low caste people. It took the form of a network of periodic market places where many of the traders were women (MacMillan 1995). Agricultural inputs 'markets' (for seeds, pesticides and fertiliser) were revealed to be the product of deliberate planning by private corporate industry – planned to be sited in villages as well as in towns. Most agricultural product markets proved to be urban in site in Tamil Nadu; but the comparison with that in Sri Lanka (where product marketing was highly decentralised) showed that this was a social construction. It exposed the naturalistic fallacies of the growth centre theory. Consumption goods were the only products to be 'hinterland-driven' and were marked by low rural demand. Our estimates of the per caput transactions of urban dwellers (Rs 1,900) contrasted with that for rural people (at Rs 310). Norms – 'styles and images' – also differed greatly between the Indian and Sri Lankan town. When it came to commodity flows, two thirds of those passing through Arni originated and finished within the district, and 10% within the town itself. Trade was highly localised.

Lastly, the concept of the town as 'parasitic' (or as having parasitic aspects) received *ad hoc* support from a number of findings. Between 1962-1973 the local terms of trade between food grains and manufactured products were strongly adverse to agriculture. Flows of investment were

increasingly dominated by firms the destinations of whose products were within the town. Though there was inadequate evidence from a single small case study to identify a type of capitalist development, recent firms certainly were 'Junker capitalists' – starting comparatively big in terms of assets, with remarkably little capital got from agricultural rents or profits or from the state by way of loans. In addition, they tended to sell 'new' products to urban consumers. Lastly, while 'informal' production credit was dominated by the paddy commission agencies who lent with extra-contractual conditions which tied the agricultural marketed surplus, consumption credit by and large was confined to cementing retail trade networks involving the urban middle classes, particularly state employees.

3. Rural-urbanisation, growth linkages from agriculture and urban bias – 1982-4

These results were sufficiently interesting for a ten years' on revisit study, but was only one aspect of a case study commissioned to build a counterfactual model of the impact of the Green Revolution in which Mellor's (1976) 'new economics of growth' would also be subjected to test. To this we added an investigation of the only other theoretical development of the intervening decade. This was Lipton's (1977) theory of urban bias in which he polemicised that the primary class differences were rural and urban, that economic development was systematically biased against agricultural and rural locations and activities and that political alliances expressed these geographical schisms.

Findings

By the early eighties, Arni's population had grown by 27% to 49,000, rice production in its environs was up by 50% (Hazell and Ramasamy 1991) but the real value of commodity flows through the town had increased by 650% (and by a factor of 15 in silk and 12 in rice). The much bigger urban economy had moved towards structural specialisation: dominated by paddy trading, rice milling and the by then booming handloom silk workshop industry with its multiplicity of feeder firms, all of which had formidable social and economic barriers to entry. The town had witnessed an immense increase in structural concentration. The top decile presided over a gross output 66 times that of the bottom decile and controlled assets which were 13 times those of the bottom 50%! Returns to business, as vouched to us, were extremely high e.g. wholesaling 95%[34]. In employment, while opportunities in wage work increased by factor of 4, family labour remained important. Women comprised only 10% of wage labour. Urban real wages were stagnant but at levels higher than agricultural wages. 'Urban' employment had begun to decentralise to villages and wage flows to stream outwards from the town. Marked changes were observed in rural-urban equity and the distribution of demand. While real urban effective demand per caput had increased by 1.8 and that of rural people had increased by 3.4, urban demand per caput (Rs 3,400) was still three times that of rural demand.

The results showed that the economy of this small town is more complex than theoretical schemas allow for – having elements of urban bias and parasitic urbanism but not for the reasons theorised; containing responses to expenditure derived from increased agricultural incomes, but not of goods and services produced under conditions of Mellorian development and *not* being the sole location for such expenditure; having much else besides powering the urban economy; and being a well behaved growth centre for consumer goods but being bypassed for many other transactions.

4. Non-market markets, intra-urban spatial development and civic services – 1993-4

In the intervening decade there was very little by way of theoretical advance in the area of rural-urbanisation (Sanghera and Harriss-White – under revision). Massive developments, however, had taken place in the fields of socio-economics and institutional economics which have directed the attention of economic theorists towards real-world complexity and diversity. Institutional forms began to be explained *not* as imperfections or deviations from some unrealisable state of perfectly competitive efficiency in which institutions are 'constraints' but instead as responses to the management of information and transactions costs and as manifestations of power, in which institutions are 'facilitating'. Some of this theoretical literature on institutions contrasts 'markets' and 'institutions'. Others have pointed out not only that markets *are* institutions but also that markets contain bundles of other institutions (economic institutions e.g. money; economic organisations e.g. firms and contracts; political institutions e.g. self-regulating associations and social institutions e.g. networks and norms) (Basu 1991; Platteau 1994; Davis 1992; Hodgson 1988). Markets are embedded in yet other kinds of social institutions (e.g. caste, class and gender) (on gender, see Folbre 1994). There is also debate over

whether certain institutions such as contracts take specific forms so as to minimise transactions costs (Williamson 1985), whether they are historically derived so as to facilitate routine irrespective of transactions costs (Hodgson 1988), or whether they are mechanisms of social control (Hart and Leplaideur 1992; Jorion 1988; Crow and Murshid 1994).

A series of questions were therefore asked of the Arni study of the 1990s in order to explore three related phenomena of theoretical interest. First, there are key institutional characteristics of markets. We needed to discover what they were. Then, we needed to examine the non-market relations embedded in markets (the organisation of family labour in firms; non contractual elements of contracts (obligations due to caste, gender, family and locality) and non-market exchange (e.g. reciprocity and gifting)). Third, we enquired about the trust and power relations that are as important as efficiency considerations in explaining contractual forms – trust via the role played by reputation, the acquisition of contacts, institutional responses to uncertainty, and power. Power is expressed through structural elements such as economic assets and control over labour; and through behaviour such as contractual forms (e.g. uncompensated, asymmetrical payment systems), through command over credit, access to the state and physical coercion. Arni has a vast plethora of market forms in which to explore these notions so we added a third round to the central core of data on long term rural-urbanisation.

The study of businesses was developed to assemble a data base on the types and costs of access of firms and their respective households to civic services and basic needs and the politics of their organisation. The writing up is still in progress (Basile and Harriss-White 2000).

Initial findings

In 1991, North Arcot district was bifurcated. From being in the centre of a diversified district and close to its administrative headquarters, the town is now eccentrically located in an agricultural and underdeveloped district and over twice the distance from its capital. Officially its population has increased very modestly to 56,000, but this is widely attested to be a serious undercount of numbers within a municipality whose controllers gain from its being small. In addition, the urban population is augmented by 'floating' migrants and has in any case burst through the municipal boundary, sprawled onto waste land and engulfed neighbouring villages. Whatever its political size, the real economic and social town is likely to contain about 100,000. The task of studying the material base of an entity of this size flirts with hubris. During the last twenty years the number of businesses visible to record in Arni has trebled.

The initial business census of the social and economic town reveals a further staggering transformation over the last decade (see Table 1). A number of agricultural and 'traditional' artisan activities have declined significantly or disappeared altogether: the maintenance of bullock carts and agricultural machinery, groundnut processing mills, pottery, the making of leaf plates, the crushing of sea-shells for whitewash and so on. Agricultural inputs firms have stagnated. The activities comprising the economic base ten and twenty years ago have consolidated their position: rice mills have doubled in number as have food wholesaling firms and durable consumer goods retail units. Urban silk manufacturing units have increased by 50% and have spilled over massively into the countryside. Deregulation has led to a threefold increase in fuel depots and increased incomes to a thirty fold increase in businesses dealing in non-food agricultural products.

New businesses attest not only to the metropolitanisation of economy and culture but to its rapid globalisation. Brand new telecommunications technologies have appeared: satellite and cable TV (and ways to poach it) and new telecommunications rental markets have spread throughout the urban area along with courier services, Xerox and video libraries. The town can now give up to 20,000 'doses' of cinema per day. The explosion of finance companies and chit funds (many not registered, many run with black money), the appearance of insurance, stocks and share dealing services, specialised commercial agencies for corporate industry, architectural, accountancy and real estate professions attest to the emergence of sizable elite markets. Tuition centres, typing and computing institutes and students' hostels indicate new patterns of skill acquisition and freedom for young people (although the town is extremely underdeveloped with respect to education). Auto sales and rentals, tourist cars and vans businesses have responded to local piety, curiosity and incomes (to service the big Sabarimalai pilgrimage to Kerala and the round-India-tour trade). Prominent expansions of hotels, bakeries and sweets stalls and booths indicate new patterns of commensality. The boom in scrap, in plastic recycling and cardboard packaging is related obscurely to

Table 1: Private firms, Arni 1973-93

	1973	1983	1993
Rice mills	23	46	86
Rice wholesale	17	45	56
Rice retail	22	30	17
Groundnut mills	5	3	-
Groundnut wholesalers	16	5	-
Groundnut oil retailers	10	10	7
Other foods-factory	9	7	1
workshops	150	262	210
wholesalers	9	22	52
retailers	271	273	1108
Non food agricultural products			
workshops	4	4	116
wholesalers	1	3	44
retailers	60	114	87
Farm Inputs-retailers	13	28	32
Silk Factories	62	243	345
Hand look weavers			1141
Other goods- factory	-	1	41
workshops	53	77	112
wholesalers	25	31	-
retailers	52	86	144
Durables-retailers	20	37	76
Fuel and Energy	12	18	59
Transport	16	38	63
Transport Repair and Service	66	98	131
Other Repair Services	191	321	623
Financial Services	87	121	152
TOTAL	1196	1923	3529
			(4789)

Notes
i) The bracketed 1993 total includes 1141 handloom weavers plus 72 educational and training establishments and 47 government offices not so thoroughly censured previously.
ii) As the urban economy changes its structure so the classification requires changing. Within-group diversity has vastly increased over the last decade.
iii) Services includes professional services as well as traditional handicraft services.
iv) Food retailing includes petty food stalls and tea stalls.

that in animal feed for urban livestock and in slaughter houses for imported as well as local meat. Both types of economic expansion are responses to the decline in biodegradable waste which could be recycled in the animal domain. Specialised ancillary crafts and specialised pawn-broking and financial services for these crafts have also mushroomed in the back streets. Modernisation has not simplified the institutional fabric. Quite the reverse.

5. Methods and institutions

The study of the town has – more often than not – been excluded from the planned and funded long term research on agrarian change in northern Tamil Nadu. At the outset, in 1971 when the initial funding application was made, the idea was simply not considered. More recently while the local collaborating institution and the Government of India encouraged the project, the funders (ODA/DFID) have actively discouraged it – for reasons unknown but no doubt connected with official research priorities and their justification. The research has therefore had to be the product of a high degree of personal motivation. The key element in this motivation has been an interest in the use of a single town, and what is comparatively speaking 'in-depth' fieldwork, to test theoretical ideas conceived at a 'meso' level against those claiming universal relevance. Both general estimates of commodity flows and assets distributions and detailed case material have been useful for the critical analysis of assumptions underlying the latter kind of theory, particularly assumptions, or polemic, about the economic processes involved. Over the two (now three) decades however the point of the research has subtly

changed – from the use of a single town to provide a reflection on powerful ideas in development theory to the possibility of writing an 'economic biography' which preserves the specific quality of the place and yet relates the town's development to general ideas about the development of towns.

In the absence of accurate listings of business premises held by any department of local government, the data for Arni have been generated each time from a functional map made of the built area of the town. The first was made by us personally. It was a harsh exposure to ridicule by the children of the town. A 6% random sample has subsequently been drawn each time: 88 firms in 1973, 114 firms in 1982-3 and 287 in 1993-4. Each time about 2-3% of firms have refused to co-operate and have been randomly replaced by one of like type. Each time an attempt was made to represent the clustered character of the urban economic fabric: in the first two studies the sample was drawn systematically throughout every street. In the survey undertaken in the 1990s, the town's five administrative wards were identified by the mappers and these wards – together with a detailed classification of business type – were the basis for the stratification of the sample. We then sampled randomly and proportionately from each strata. The 6% sample has become sacrosanct, although it was originally selected in an opportunistic manner in relation to the major constraint of time. It was impossible in 1973 to know what this fraction meant in statistical terms in advance of any knowledge about the variation in the economic distributions of businesses. Given what we now know of the increasing variety of firms over time, whatever statistical significance 6% had in 1973 has been reduced. Yet the sampling fraction is important, if only because one aim has been to make estimates of commodity flows, assets and gross output distributions in and through the town. The estimates made for 1973 and 1983 are more accurate than one might suspect from a 6% sample for the following reason. Throughout the entire period commodity flows and assets control have been highly and increasingly concentrated. A small number of firms – less than a score in 1973 and confined to silk, paddy, transport and property then, about 50 now – dominate the economy. This fact was known prior to starting the survey in 1973, since it was a salient outcome of the main fieldwork on agricultural inputs and product markets. Each time, therefore, an attempt has been made purposively to include those firms commanding the heights of the local urban economy. The big firms have been found by hearsay, by networking and by consultation with the new Chamber of Commerce. When making general estimates, data for these big firms have not been weighted by the sampling fraction but have been added to it. Where these big firms have appeared in the random sample, they have then been ignored. Much the same procedure has been used for data on the groundnut trade, routed through the ledgers of the local Regulated Market but entirely controlled by absentee traders.

Businessmen are suspicious about being 'observed' and resist attempts actively to 'participate'[35]. There is no alternative to a business-like talk. The field method used involves many of these – more or less loosely structured, carefully set up in slack seasons, days of the week and times of the day, ostentatiously anonymous and confidential, actively discouraging the type of response geared to what we wish to hear. It is a historical approach to knowledge, and the field techniques have been described in detail elsewhere (Harriss 1992; Harriss-White 1999).

An assistant has always been used, to help ease the way with language, and to provide a triangular encounter where the recorder is continually cross-checking and supplementing the questions while the assistant has responsibility for the introduction and the order of the interview. In 1973, the assistant was less qualified and more locally grounded than 10 and 20 years later, a general attribute of the field staff participating in the North Arcot projects.

The project was run out of a modest commercial lodging house where traders' clerks could be billeted, whose night-time attempts to convey information down telephones were a constantly productive irritant. This base, centrally located in the busiest part of town, had been used for months before the first study of the town. By then we were well known to a cross section of local people; our reasons for being there had been repeatedly explained and we were as 'accepted' as any stranger might be.

The first repeat survey was carried out alongside a team of agricultural economists from Tamil Nadu Agricultural University who were re-surveying the original villages and also conducting their own urban surveys in the district in order to construct a regional social accounts matrix. The two urban projects never clashed. No respondent of ours had ever been interviewed by the TNAU team.

There were two reasons to make a panel study methodologically inappropriate.

One was that our original survey had been anonymous so that we would have had to have relied on our defective memories of ten years before in order to identify our respondents. The second much more important reason concerned the state of flux of the urban economy. We found, from comparison of the 1973 and 1982 listings, that, despite the general clustering of economic activity, a significant proportion of firms had not survived the decade. Others had changed type. Yet others had changed location. Some had split. Others migrated. The largest firms were and are the most stable and our purposive treatment of these firms is creating a panel of sorts. We had no option in 1982 but to sample afresh and this procedure was repeated in 1993-4. In 1982 two firms from 1973 turned out to be randomly included and in 1994 about ten recognised our revisit.

The first resurvey was conducted at separate points of time over 15 months by me and by John Harriss (who focussed on the silk sector as he had done earlier). The field assistant, who had already mapped the town and compiled the list of businesses before I arrived, had been selected by TNAU. The fieldwork proved sensitive to the assistant, this time interviews being more ritualised and rigid. The business listing also proved incomplete. I am therefore less committed to the commodity flow and assets estimates of 1983 than to those of 1973 – or 1993 but find consistency in the general trends.

In 1982 , traders and businessmen accepted me as part of the urban furniture again. This time I rented a small house in an 'inner suburb' populated then by potters and firewood sellers and about to be invaded by silk traders. It was a time of terrible drought and my household (consisting of myself, my daughter aged two and an ayah of legendary resourcefulness from the Nilgiri Hills) suffered along with everyone else, waking up regularly at 3 a.m. to haggle over an oil drum of water with the water man ('t*an*nirkar'), toiling off with the huge crowds to the cinema to cool down for hours on a Sunday, electricity permitting. There is no doubt that our ayah, who had lived with us for 6 months in Coimbatore and Madras in 1980-1 and had travelled to Calcutta, Santiniketan, New Delhi and Hissar for an equal period in 1981-2, was our ambassador and interpreter. Her relationships shaped much of the non-survey knowledge and experience we had.

By the 1990s, the project had become audacious, given the size of the town and the brief nature of my visits – a maximum of only 6 weeks at a time. The business listing was extremely carefully carried out. The size of the 6% sample has necessitated a much longer field exposure. My field role was limited to the purposive interviewing of most of the 'big shots'[36], local government institutions and professionals together with certain respondents thought to be difficult: sweepers, scavengers, recyclers, marketplace coolies, butchers etc (because of their unsavoury environment) and financial institutions, pawn broking and gold smithing (because of their unregistered nature). This experience was used to help skill the field assistant, M.V. Srinivasan, who was both highly qualified and highly motivated and who subsequently saw the survey through by himself. Two scholars from the Madras Institute of Development Studies carried out case studies which interdigitated with that of the town. S. Janakarajan studied the exchange and marketing of paddy and rice as part of his research on the major agrarian markets and K. Nagaraj explored the silk industry as part of his work on the local non-farm economy. This time, I lived in a new commercial lodging house sited in the central business district. Srinivasan took lodgings in a 'mansion' of small rented rooms alongside young professionals and businessmen with whom he related as a friend. For the first time ever, we worked with a 'key informant', P.J. Krishnamurthy, a retired science teacher with a profound and long familiarity with the town, with whom much of our work and experience was critically discussed, and who quite spontaneously collected relevant documentary material. This was an unexpected privilege, yet in the healthy words of my assistant: "I find it difficult to accept everything he says"... and it is necessary to make the effort to distinguish history 'out there' on the one hand from the individual's verdict on that history on the other. Thus different methods have been used, each time, with different institutional contexts.

6. Experiencing the urban economy

The urban re-surveys were not only undertaken to 'deepen our understanding' but also, more superficially, to collect similar kinds of information over time. Yet the quality of the field experience has improved over the decades and opened up the possibility of presenting a more deeply textured account of the town's development. One irony of revisits to Arni has been the fact that while the foreign researcher is increasingly 'embedded' (known over a continually lengthening period) s/he is also increasingly *un*known (as the population of the town expands, known people are a shrinking proportion). 'Being known' yields privileged information and provokes a reflective interaction between the respondents

in the sample survey and the watched and lived experience. This lived experience is invisible to the material of the formal survey, yet it is increasingly important in the process of its interpretation.

This is because of the *ways* in which I am known. Take the three room-boys in Balaji Lodge where I lived in 1973. Much despite the odds and having missed out on education, all of them have 'made good' and have every right to be proud of what they have achieved. My relationship with them tells me about drink; about violent political corruption; about the occupation of revenue land for housing; consumption loans; the way weavers are bonded; the impossibility of school at all for the working girl child of one; the sacrifices necessary by another for an English education for his children. For two Post Office employees, I think I am seen as the friend of an exalted Post Master General. My relationship with them tells me about the details of telecommunications innovation; about the invisible female army of middle caste leather workers sewing away in sweat shop conditions, the product of whose labour may be being purchased in Britain even now; about the outbreak of insurance as a retirement pastime for government officials; about how to tap into TV cables; about noise and air pollution. Then there is a steady stream of immigrants from the village John Harriss lived in: Rajeshwari introduces me to the Brahmin female computer programmers who tell me about gender and caste constraints in the local labour market; Doraisamy has a shrewd appreciation of the political impact of investments in the temple versus that from water pumps and pipes; Murugan, the wall-eyed harijan, ekes out a life, renting a rickshaw (having been unable to maintain the one we gave him), under a drizzle of caste-based discrimination. Because of that village connection, absentee landlords, Muslims from the town who have made it so good in sweets that they can buy a hundred acres of village land and make a spectacularly risky secular investment in a teacher training institute in the driest of dry-lands, greet me with courtesy and use my status for publicity. A great population of subalterns (ageing rickshaw pullers and market coolies, women in rice mill gangs) have found me unthreatening enough over the years to tell me about the problems of organisation and of continual persecution by local government and local elites. Officials in government – in the municipality, the co-operative stores and banks – remember me well enough to know I am pretty harmless and they let me copy data. Other officials reveal the consequences of under funding, under manning, institutional scarcity and 'state compression' long preceding the 1991 reforms. By way of contrast, as markets integrate massive tracts of territory, and penetrate society, the town develops institutions which in turn work hard at developing its image and finding an advertising niche for it as a commercial entity. The business elite feel in a position to tell me their versions of, and their visions for, Arni. They tell me that it would be different if I were not a foreigner. From the Chamber of Commerce and the Lions Club exude capitalist entrepreneurial values, tipped with philanthropy. The shadowy money lending 'private party' of two decades before has now come out as a respectable pillar of this society. The most significant insight from these conversations has been an explanation for the spread of corruption under conditions of deregulation – the very opposite of what has been predicted (Harriss-White and White 1996).

In the end the 'economic biography' I intend to write will use the sampled data to chronicle long term change, but its spark of inspiration will come from unanticipated conversations with those whom I have encountered in these various ways.

The final unanticipated factor is the growing capacity and willingness of respondents to comment critically on the crudeness of the categories I have to use in order to obtain information and relate it to theoretical notions. Although the long term study has been confined to the urban economy, economic categories are not recognised as discrete. What outsiders consider as political, social and psychological do not merely affect economic behaviour, they are part of the economic world, and vice versa. For the keeper of a shop selling religious and political posters my questions about his business seemed to avoid the crucial interrelatedness of the elements of life – of the relationships between the loans on his house, loans for consumption and for business; of the impact of his brother's alcohol habit, fear of political violence and his depression on his family's status and his business' fortunes. Though this study was originally inspired as an empirical critique of theories from economics, there proves to be nothing privileged about 'the economic'. To write the 'economic biography' of a rapidly growing market town, it will be necessary to recognise the limitations of economics.

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Innovations in Mixed Methods to Understand Poverty Dynamics: A Multidisciplinary Approach to Longitudinal Research in KwaZulu-Natal, South Africa

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1. Introduction[37]

This paper presents the methodology used in a longitudinal study of poverty dynamics in rural and urban areas of KwaZulu-Natal province in South Africa. The study combines socio-economic panel survey data with in-depth, semi-structured household and key informant interviews, group interviews, and observation. It also developed unique participatory methods to conduct qualitative household interviews, with multiple household members constructing visual family histories. Notably, qualitative methods were used to delve underneath apparent relationships derived from quantitative statistics and regressions, in order to understand what the numbers were measuring or missing. Iterative analysis of the longitudinal quantitative data and retrospective qualitative data enabled greater analytical insight than is normally available from either type of data alone. In addition, visual methods were developed to explore the composition of 'the household', and to gather data from and about household members that may be missed in surveys.

The study focused on changes in the poverty status of households, primarily through the periods 1993 to 1998. The qualitative research also traced some changes through 2001[38]. This was the period surrounding and following South Africa's transition to democracy, and the introduction of policies reflecting the new government's initial commitment to poverty alleviation, embodied in its Reconstruction and Development Programme (RDP 1994) and the programs of sector-specific government departments. There were also immense new challenges to reducing poverty: South Africa's abrupt entrance into the international global economic system; the need for institutional transformation at all three levels of government, and the need to address the legacies of apartheid such as poor education, poor health, underdeveloped markets and racial discrimination, among others. The study's focus on poverty dynamics was based on concern about the extensive and deep poverty and inequality in South Africa, and the desire to understand what contributes to the persistence of poverty or the ability to transcend it.

2. Background to the qualitative study: The Project for Statistics on Living Standards and Development of 1993 and the KwaZulu-Natal Income Dynamics Study of 1998

The research study discussed here was preceded by two quantitative studies namely, the Project for Statistics on Living Standards and Development (PSLSD) in 1993 and the KwaZulu-Natal Income Dynamics Study (KIDS) in 1998[39]. The PSLSD was driven by the recognition that an important adjunct of apartheid was the absence of credible and comprehensive data on which policies could be grounded. It is widely acclaimed as the benchmark for household poverty surveys in South Africa, despite some critiques of the sampling. It visited 8,800 households throughout the country. Despite its usefulness, the single round PSLSD could not provide answers to many questions important to policy researchers and practitioners, particularly questions about dynamic processes such as entry into, and exit from, poverty.

With the aim of addressing these types of questions, in 1998 the KwaZulu-Natal Income Dynamics Study (KIDS) resurveyed the SALDRU households in this province. Of the 1993 households, 1,132 (83.6%) were successfully re-interviewed. KIDS largely followed the 1993 questionnaire but added several modules, and focused on individual differences within the household (Maluccio forthcoming). Major findings of KIDS were that 22% of the households were poor[40] in both periods ('chronic poor'); 11% moved out of poverty ('got ahead'); 19% fell into poverty ('fell behind'); and 47% were non-poor in both periods ('never poor'). KIDS was the first major South African longitudinal study that looked into household poverty dynamics.

3. The Socio-Economic Study of the Persistence of Poverty and Inequality, 2001

Although KIDS marked important progress in the study of poverty dynamics, the findings raised new questions. First, as with any survey data, there was good information on the nature of changes, but not always good explanations for them. Regressions suggested certain causal relationships, but these were still insufficient to understand the complexity of poverty dynamics. For example, there were findings from regression analysis that social capital (defined as membership in formal and informal groups) had a positive and significant effect on household welfare in 1998 (Maluccio et al. 2000). However, the limitations of survey questions for studying this issue meant that the reasons why social capital should have this effect were not clear. As a result, the Socio-Economic Study of the Persistence of Poverty and Inequality (SEPPI), was initiated in 2001. SEPPI was a collaboration between economists and sociologists at the University of Natal-Durban, the International Food Policy Research Institute (IFPRI), and the University of Wisconsin, Madison. Economists and anthropologists at the Catholic University of Peru were also collaborators, examining similar issues related to longitudinal poverty dynamics in Peru. The main purpose of SEPPI was to develop an in-depth understanding of the factors that led households to move into or out of poverty, to stay poor or remain non-poor, between 1993 and 1998.

4. The qualitative research design

i. Selecting the study areas

Because a central purpose of the study was to maximize the value of combining quantitative and qualitative data for understanding poverty dynamics, the study was designed to have the qualitative research revisit a sub-sample of households that had been included in the 1993 and 1998 surveys. We selected eight of the 62 KIDS study areas, based on the anticipated challenges of managing large volumes of qualitative data. The sample was stratified in three ways. First, study areas were selected on the basis of the rural/urban mix of KwaZulu-Natal, resulting in five rural and three urban study areas being included. Within the three urban study areas, we chose one from a metropolitan area, and two more to reflect different types of smaller towns, one in the former KwaZulu homeland, and one adjacent to a 'white town' in former Natal. Secondly, study areas were selected on the basis of economic change, as reflected in expenditure and income growth or loss at community level. Finally, selection of the rural areas took into account the three broadly homogeneous geographic regions conventionally used for administrative and development purposes – northern, midlands and southern (Maluccio 2001). When one rural study area had to be replaced, we purposively selected a commercial agricultural area.

ii. Selection of households

We selected 8 households from each study area. These households were drawn from four poverty-status categories that KIDS developed in 1998, and represented our interest in understanding poverty transitions, i.e., 'getting ahead', 'falling behind', 'never poor' and 'chronic poor' households. We began by selecting two households from each category per study area. Once in the communities, however, we faced several challenges to fulfilling our ideal sample.

First, four households refused to be interviewed, mainly because they were suspicious of the research process. Second, there was a lack of even representation of the four household categories in each study area, making it necessary to alter the two households per category research design. And third, in two areas, one rural and one urban, there had been such residential mobility that it was difficult to fulfil the quota of 8 households of any category. In total, 50 of the originally selected 64 households were interviewed. In the areas where we could not locate 8 households, we conducted more key informant interviews and focus groups.

5. Innovations in qualitative methods to study poverty dynamics

i. Relationship with communities

We started the research aware of the cost of research to respondents, especially its extractive nature and the difficulty of giving feedback to people in the research areas, or providing them with direct benefits derived from the research. We introduced a number of measures in this regard, each of which caused us to reflect anew on ethical and epistemological issues in research.

At the community level, first we undertook two-day set up visits before fieldwork began, where our lead fieldworker met key officials in each area, informing them of the purpose of the research and how we hoped it would be helpful in the long run. Gatekeepers ranged from traditional authorities in rural areas, to political party members in urban areas, and councillors in both. Second, we prepared a profile of socioeconomic data on each study area derived from SALDRU 1993 and KIDS 1998,

as a way of giving feedback from these earlier rounds of research. These were provided to community leaders, even though we recognized that putting resources in the hands of particular individuals who may or may not be representative of or working in the best interest of the wider community does not necessarily benefit the wider community. We also recognized that this profile was of questionable usefulness, and more work needs to be done on how to feed back research results in a more proactive manner.

Third and most importantly, we prepared a 'Very Useful Information Package', consisting of resource materials on finding jobs, training, education bursaries, health information, and assistance from government departments and NGOs. Again, we faced questions as to with whom to leave this package, and specifically did not want to leave it in the hands of formal leaders.

At the level of individual respondents, we played a continuous role in referring people to advice offices for legal help, and provided information on how to access government assistance of various sorts. We found that these forms of assistance, at the community and at the individual level, as well as being honest and transparent about the shortcomings of social research, were helpful in gaining entry and trust, and establishing good relationships.

ii. Exploring 'the household'

The qualitative work constructed a 'family tree' and used the events map (see below) to explore who might not have been identified in the surveys as a 'household member', but was contributing to the well-being or poverty of the household. The household interview process also revealed that households are fluid entities, with people and resources circulating among them. This appears to be intensified under the shadow of AIDS, which causes people to not only move around more, but to take responsibility for multiple families. We also learned that people's attitudes toward particular family members can affect whether they mention them as part of the household. The family tree, events map, and observation facilitated the construction of a more comprehensive picture of the household.

iii. The household interviews and events map: Combining interviewing and participatory methods to study changes in poverty over time

Our main research instrument had eight modules and took between 3 and 7 hours to complete. We knew that a long interview would inconvenience people in their household chores and exhaust them. Consequently, we divided the interview into three sets of visits. In our first visit we sought permission from the household and updated the household composition data from 1993 and 1998 surveys. We usually conducted three modules in our second visit, i.e., the household events (positive and negative shocks), employment and credit sections. We then completed the household interview in our third visit, where we covered the remaining five modules on trust and social relationships, organizations, education spending and management, and integration and closure.

The main feature of the household interview was the 'household events map'. This was the key research tool for capturing events and changes at the household level over the 1993 to 1998 period. In addition, though our main focus was 1993 through 1998 to correspond with the survey data, it was sensible to capture events through to 2001. The events map was constructed by laying a large piece of brown paper – 2 metres by one metre – on the floor (often covering half the floor of the room), with a timeline at the top marked with every year between 1990 and 2001. The cards created for each household member from the household mapping process were laid out to serve as a reminder for respondents to relate stories pertaining to each household member. In addition, broader community-level events (collected by KIDS in 1998) were recorded before the interview to remind respondents of these events (and new events not previously captured were added), but also to explore relationships between community and household events. The fieldworkers worked in teams of two, one leading the interview and the other taking notes and operating the tape recorder. One or the other would record the events on the household map.

Each event was recorded under the year in which it occurred and next to the person who experienced it. Dotted lines were used to indicate on-going events while solid lines indicated relationships or links between two or more events. Different coloured pens were used to distinguish events; for example, black for 'general events' such as deaths; green for 'organizations' such as burial societies; and red for 'employment stories' (both formal and informal employment).

Using the 'events map' had numerous advantages. First, it was a continuously growing visual, with main events recorded at the outset, but additional events added as they arose in the course of the interview and

discussions. Second, the technique helped to relieve the problem faced by conventional methods of surveys and qualitative interviewing – that is, the restlessness caused by sitting and answering questions for hours. The visual of the diagrams and coloured pens, and seeing the names of family members and events that occurred over the years – in essence, a map of one's life over ten years – clearly caught people's attention. It drew in additional family members to the process, who might otherwise have walked through the room without much interest. As the interview proceeded, it would be broken up by the recording of new events on the map as they emerged. Finally, this events map was an exceptionally useful management tool for the research team, assisting it to 'keep in mind' the whole household picture, as individuals told their stories.

Ultimately, a total of 91 interviews were conducted (including household, key informant and focus groups) and were typed, coded and analysed through HyperResearch, a Qualitative Data Analysis (QDA) software package.

6. Reflections and conclusions

The iterative process of quantitative and qualitative research undertaken in this project, and ongoing through 2004, provides the best of two worlds. The quantitative data covered over 1,100 households, while our qualitative sample size is too small to claim representation of the wider population. But while quantitative methods give statistics with clear rules of interpretation, it is difficult to know just what they are revealing. The qualitative methods provided in-depth information about what happened to people and why, and a far more nuanced understanding of poverty dynamics and patterns of experience. It also allowed us to explore people's own perceptions of poverty. In comparing what the survey data told us about whether people moved into or out of poverty with what people themselves perceived, out of 50 SEPPI households, 34 interpreted their poverty experiences differently from the KIDS data. The use of different methods to ask the same questions gives rise to different answers.

Although the survey could better measure change across two points of time, SEPPI found out all that happened in between. For example, we found different types, episodes and durations of work than did KIDS, suggesting the need for improvement in capturing 'work' (a paper on this aspect of the results is in draft). There is much 'bubble beneath the surface', ups and downs, turns and reverses along a windy path, and positive and negative episodes that can greatly effect how households respond to later experiences. These are things that are missed in once-off, time-bound questionnaires, as well as panel rounds that capture change but only across two distant points in time. Without the survey, we would not know how to measure change, and could not see the patterns across the province as a whole. But the qualitative work enabled us to fill in gaps in understanding, to unpack certain meanings and ambiguities in the survey data, and points towards paths of further questioning.

Finally, we were struck by the dilemmas inherent in conducting research on poverty. The issues that respondents raise are immediate and pressing and need immediate interventions. The research process, on the contrary, is long-term and at best translates into policy change that has lag times. There is also no guarantee that government will act upon its findings. It took a toll on our researchers to develop a rapport with respondents, hear painful stories, and then leave knowing that something may or may not come out of this effort.

We believe that research on poverty is a necessary part of the process of poverty reduction. Nevertheless, we end with an emphasis on the responsibility of researchers to give something back to the communities that help them with their research through their time and cooperation. This is heightened in the case of longitudinal research, where researchers continuously descend upon the same communities. One way is through turning research into policy recommendations and advocating policy reforms. In addition, action research can be undertaken to combine data collection with intervention. Where this is not possible, research findings should be analysed in a manner that is accessible to local actors, e.g. local government and NGOs, and means should be developed to make this information useful. For example, when research funding proposals are developed an allocation could be made for a small grant designated for helping communities to turn findings into practical actions. This could greatly improve researchers' responsibility to communities where they work. It is also beneficial to the research process, particularly where longitudinal research relies on sustaining good relationships over the long term.

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Advantages and Disadvantages of Combining Qualitative Methods: The Experience of a Four City Comparative Study

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1. Introduction: Going backwards in order to go forward?

This paper briefly reviews the research methodology developed for a longitudinal research project, 'Urban Poverty in the Context of Adjustment' (UPA), undertaken between 1990-95, while a staff member of the World Bank. The research focused on the 'social impact' of structural adjustment reforms in four poor urban communities in four different regions of the world, in Ecuador, Zambia, Hungary and the Philippines. The paper explores a number of issues that are pertinent for the design of a new round of research – to be undertaken in Ecuador. As such it has two main objectives: first, to revisit a number of methodological issues that were pertinent at the time; second, to explore the potential for introducing new participatory methodological approaches, already tested in non-longitudinal research, into the next round of the research.

As contextual background, the paper starts with a brief description of the research methodology. Then, in the spirit of the workshop's objective to share and exchange ideas about methodological experiences, it raises a number of relevant questions. Since this is essentially work in progress many are left unanswered–and hopefully may be answered in the workshop itself.

2. Background: The UPA study[41]

The UPA research project was undertaken in Chawama, in Lusaka, Zambia; Cisne Dos, in Guayaquil, Ecuador; Commonwealth, in Metro Manila, the Philippines; and Angyalföld, in Budapest, Hungary. Its antecedent was a longitudinal community panel study that compared households in a low-income community in Guayaquil, Ecuador, between 1978 and 1988, which started as qualitative anthropological research undertaken while living in the community (Moser 1989; 1992)[42]. The UPA research project extended the Guayaquil study, and undertook three additional urban community studies. These were chosen to provide examples of contrasting experiences of economic difficulty from different regions of the world, and were not 'representative' as such, since each context had differences in historical experience of governance, resource base, economic development path, and per capita income. The one non-developing country chosen, Hungary, was included to identify strategies in a transition economy, but Angyalföld, Budapest, was largely excluded from the comparative analysis.

i. Case study countries

These had in common a decade of economic difficulties in the 1980s, when all endured high inflation and lower-than-average or declining per capita income. Because of the urban focus, countries were chosen that had increasing rates of urbanization and in which more than 40 percent of the population lives in urban areas. Communities were selected in 'typical' poor areas. This was based on the personal research knowledge of anthropologists or sociologists that had previously worked in the communities, rather than on rigorous poverty mapping. In the late 1970s the areas had been characteristically inhabited by young, newly migrant, aspiring, low-income populations. All but Angyalföld, Budapest, were 'marginal' areas, originally settled through 'invasion' or 'squatting' that underwent a complex process of consolidation during the 1970s and early 1980s, in which makeshift housing was transformed into permanent structures. Again, all areas had experienced upgrading and infrastructure improvements, as a consequence of government policy or community-based mobilization. At the same time considerable internal socio-economic differentiation had occurred, as some households had prospered more than others.

ii. The UPA study objectives

These were broadly identified as follows:

- To diagnose poverty trends within poor urban communities during structural adjustment and economic reform;
- To identify how far both household and intra-household level factors diminish or increase the capacity to respond to conditions created by macroeconomic change and policy reform;
- To clarify the strategies adopted by urban poor households and different members within them to reduce vulnerability and prevent increased impoverishment during the past decade; and
- To identify critical policy interventions to minimize welfare loss and ensure well-being during policy reform.

iii. The research collaborators

Research was undertaken in each country by local women's research organizations working with the World Bank research team–some sixty researchers in total. Each team included sociologists, anthropologists, and statisticians. In the case of Cisne Dos, the research was undertaken by the author, together with two consultants and women from the community. The research was undertaken in four stages - research, tool development, consultation and follow-up. All the research teams utilized an *identical methodology* to allow for comparisons across cities. In each country, these were complemented by two country level review papers: an historical review of national and urban level economic reforms and a review of recent national level social policy and important urban level interventions

iv. The research methodology

The entry point for research was the household[43]. The methodology combined three research tools that were implemented for data collection in each of the four communities studied, with in-built monitoring mechanisms to crosscheck consistency in implementation (Table 1)[44]. These were as follows:

Random sample survey (RS) to collect statistically quantifiable data from around 240 household questionnaires in each of the four communities studied. The RS survey was a single questionnaire conducted with one respondent in each of a random sample of households in the target community. It contained two types of questions: those pertaining to the household as a whole and those pertaining to individual household members. Randomness and data integrity were guaranteed by careful mapping of the spatial community, rigorous enumeration of the dwelling units, and determined efforts to minimize refusals and failures, by checking procedures and repeating visits to ensure that every interview was completed in full.

Sub-sample survey (SS) using both structured and open-ended questions, to collect qualitative data relating to key issues identified during preparations for the study, the community survey, and the random sample survey. Given the focus of the research these were undertaken with women with issues relating to intra-household divisions of labour, domestic violence, and attitudes to child labour. These were designed as a 'follow-up' interview undertaken in around 40 households picked from the random sample survey as representative of household type as well as other community relevant characteristics. The fact that the random survey and sub-sample survey were implemented in sequence meant that the provisional data analysis of the RS helped identify key issues to be included in the sub- sample questionnaire[45]. The SS survey questionnaire was intended to provide structure to an open-ended more participatory exercise as a systematic way of collecting and comparing data that could be organized in tables – for example, a year-by-year calendar for the history of household events; the list of household members; an hour-by-hour timetable of household activities. Thus many of the questions, particularly the information relating to household changes were intended to allow for interaction between researcher and interviewee.

Community survey, based on contextual methods such as participant observation, triangulation and interviews. Its purpose was to collect community level information on the provision of economic and social infrastructure, land ownership patterns and formal and informal social institutions. Information was acquired while undertaking the mapping and random sample survey, from key informants in the community, including community and municipal level sources, nongovernmental organizations, and census or national government data.

These three research tools were used in combination to examine the way in which changes in household headship, structure and composition influenced household level poverty and vulnerability. Detailed intra-household data was obtained from both the sample and sub-sample surveys that illustrated the way in which different household members responded to change. In addition community level data from both quantitative and qualitative sources illustrated the way in which such strategies were conceptualised within the particular spatial community.

***v. The research results*[46]**

The UPA study used income to measure poverty levels in each community. It also used income poverty measures to show that changes in prices, wages and public spending during periods of economic difficulty increased hardship for poor urban households. In the two communities for which longitudinal trend data existed, the research results indicated that the poor were getting poorer. Between 1978 and 1992, real per capita income declined by 39 percent in Chawama, Lusaka, and by 14 percent in Cisne Dos, Guayaquil[47] Households in both communities, on average, were worse off than a decade before. This was particularly the case in Chawama, where consistent with national trends, real income declined

Table 1. UPA survey content

UPA SURVEY CONTENT					
Issues	**Random Sample Survey**	**Sub-sample Survey**	**Community Survey**	**Social Policy Paper**	**Macroeconomic Paper**
Socio-economic Profile of the Household	Demographics & socio-economic status of household members; age structure; household size; household structure; dependency ratio	In-depth qualitative information on changes in structure & reasons over 10-year period; intra-household decision-making about fertility	Main employers in the community; social & political organizations	Poverty profile describes demographics at the urban level (for representativeness analysis); population and family planning policy & its relationship to family size; health policy	Levels of poverty & welfare; changes in macro policies e.g. shifts in employment can have an effect on household structure such as mean away from the home
Access & Reliability of Household Employment & Income	Sources of income (main & supplementary – income in kind, household enterprise); remittances; credit; income earners; type of occupation; social security benefits	Income transfers; sources of credit; intra-household decision-making on expenditures; household budget	Main employers & occupations of people; community-level projects with income-generating component	State of urban poverty, migration, & growth of informal sector	Movement of labour towards low-productivity jobs; employment & unemployment trends; trends in real wages; labour force participation rates; changes in informal sector employment; overseas employment
Work Patterns of Household Members & Balancing of Gender Roles	Information on the triple role – productive, reproductive & community managing tasks, gender division of labour; sons/daughters	Typical 24-hour household activity; changes in household composition & structure over time; implications for gender division of labour; domestic violence	Community projects/organizations & the relative involvement of men & women	Changes in services; women in the informal sector; social action programs; child care support programs	Cuts in social spending; women's increased labour force participation; shift from non-tradable to tradable
Access & Reliability of Facilities	Physical attributes of housing; tenure patterns & perceptions; length of stay; migration history; credit on housing; density (nesting); household housing expenditure	Perception on changes in cost & availability of goods/services	Patterns of land tenure; pattern of housing, spatial distribution; threats of eviction; history of growth of the community	Housing policy provision & budgetary allocations; nature of housing & land markets	Cuts in public expenditure on housing & facilities
Access & Reliability of Physical & Social Services	Education level of members: type of institution; health facilities used; expenditures on tuition fees & related costs; type of services used & expenditure on transport; water & household energy	Qualitative data on drop-outs; problems in payments of school expenses; changes in cost of goods & services; perception on reliability of services	Level of service provision; who provides, funds & maintains; reliability of service; initiatives in response to un-reliable services	Trends in expenditure cuts; user fees & link to household expenditure patterns	Trends in expenditure

Source: Moser et al. 1996 : 14.

dramatically. The study also documented common 'consumption modifying strategies' to declining real income – such as cutting total spending, changing dietary habits, and cutting back on purchases of nonessential goods.

Although income trend data and consumption characteristics were an important starting point in the study, they provided only a partial picture, and were unable to capture the diversity of responses to economic difficulty. The research highlighted similarities and differences in individual, household and community level vulnerability in the context of economic crisis in these four very diverse contexts, and identified the manner in which a household's management of its complex asset portfolio influenced its capacity to cope. Here the analysis of random sample results was considerably strengthened by the inclusion of sub-sample data.

Household responses, or strategies, to deteriorating economic situations were documented in terms of an asset vulnerability framework. As summarized in Table 2, communities showed important similarities, and differences, in the choice of 'income-generating strategies' they adopted to 'cushion' themselves, and limit the impact of external shocks. In such adjustment processes there were both winners and losers; there were important differences within communities between households, with some coping better than others, depending on constraints impeding their asset accumulation. Finally, some strategies had unanticipated, negative, effects on equality *within* households, on family integrity, and on social cohesion.

3. Reflecting on the research experience briefly highlighted above almost a decade later raises the following questions:

i. How do we define qualitative research?

At the outset it is useful to clarify what is meant by qualitative research. This would appear to depend on the discipline within which the question is framed. While community case studies such as the UPA study are qualitative in terms of the scale of the study, they nevertheless provide quantitative information. And in a sense this is one of the points of confusion. The 'traditional' methodological distinction between sociology and anthropology was that the former undertook statistically robust quantitative surveys (at community, city or national level), while the latter relied on a range of fieldwork techniques using 'participant observation' – and therefore was based on the premise that the researcher spent a considerable time 'living in the community'. As different research disciplines increasingly 'mixed methodologies' this means that such a distinction is no longer valid – particularly with the recent explosion of participatory methodologies (see below).

In weighing up advantages and disadvantages it is clear that research results from 'micro-studies' even if quantitative in themselves, by design cannot be representative at the national level. Yet they provide important data on the complexity of daily life in poor communities that often elude larger quantitative surveys such as national level household surveys. For instance, the concept of housing as an asset–which has now been incorporated into urban policy debates – derived from the detailed longitudinal work on land ownership patterns. In the case of Ecuador, conclusions reached in the study (such as the importance of housing as an asset) were further tested in a nation wide Living Standards Measurement Survey (LSMS). This provides an interesting illustration of the way in which contextual qualitative research can highlight issues whose robustness can then be tested at a representative level (World Bank 1996). In the UPA study the sub-sample data provided much of the 'richness' and texture and it was here that many of the most important issues – such as the increase in levels of fear and insecurity – were raised.

ii. How robust is community panel data?

At the time when the UPA research was undertaken debates about the effects of adjustment policy were highly contested; while the World Bank maintained the essential macro-economic necessity of such measures, the NGO community lobbied about the severe poverty-impacts of such policies (see Ribe et al. 1990; Development GAP 1993). The results of the research project were dismissed, particularly by economists in the World Bank, on the basis that they were not representative at the national level, or robust in terms of cross-country comparisons. At best it was concluded they provided interesting case study 'anecdotal information' on community and household coping strategies in 'crisis situations'[48]. With hindsight it was dangerous territory in which to tread as an anthropologist/sociologist, since even economists themselves were having methodological problems with quantitative measurements of the social impact of macro-economic adjustment measures (World Bank 1995; Moser 2003).

Table 2. Household income raising strategies to mobilize assets in response to changing economic circumstances in four community studies

Type of assets	*Households income raising strategy*
Labour	•*Increase the number of women working, mainly in the formal sector* Long-term trend data show a dramatic increase from 32 percent to 46 percent in Cisne Dos and from 9% to 35% in Chawama. Short-term trend data for Commonwealth show an increase from 22 percent to 37 percent (for heads of household and spouses only). •*Allocate a disproportionate share of women's time to meet increasing responsibilities* Although men and women in 1992 worked nearly the same number of hours in productive work, women have a considerable extra time burden in domestic responsibilities over and above childcare. In Commonwealth, Chawama, and Angyalföld women worked an average of 15 hours a week on household task in 1992, compared with 3.5 hours for men. •*Allocate more time to obtaining services in response to the declining quality of infrastructure* Inaccessible and poor-quality services impose a time cost on the poor, particularly women, who are responsible for most household tasks. In 1992, households spent on average forth-five minutes a day fetching water in Cisne Dos; ninety minutes in Commonwealth, and forth-five minutes in Chawama. •*Increase reliance on child labour* The poorest households are most likely to rely on children's labour with boys more likely to earn income and girls to assist with childcare (66 percent of girls in Cisne Dos, 50 percent in Commonwealth, and 20 percent did in Chawama. In the three developing country communities children worked an average of thirteen to fifteen hours a week in home-based enterprises.
Housing	•*Diversify income through home-based enterprises and renting out* Home owners use housing (house and land) as income-generating assets. In 1992, in Cisne Dos and Commonwealth, one in three households earned income from home-based enterprises. In Angyalföld women work as dressmakers, hairdressers, and beauticians. In Chawama almost half of home owners earn extra income from rent. •*Adopt intergenerational plot identification strategies to accommodate children's households* Long-term trend data in Cisne Dos show that households are "nesting," as children build houses on their parents' plots to reduce vulnerability.
Social and economic infrastructure	•*Substitute private for public goods and services* In 1992 nonpoor households in Cisne Dos purchased drinking water from vendors and installed water pumps to cope with low pressure. In 1992, more than 50 percent of those who were ill in Cisne Dos and Chawama opted for private health care. More affluent households in Angyalföld also chose private doctors. A third of electricity connections in Cisne Dos and a quarter in Chawama are illegal.
Household relations	•*Increase reliance on extended family support networks* Long-term data show an increase in extended households from 33 percent to 38 percent in Cisne Dos and from 32 percent to 46 percent in Chawama. Short-term trend data for Commonwealth show an increase from 35 percent to 38 percent. Data for 1992 show "hidden" female heads of households in 50 percent of extended households in Cisne Dos, in 25 percent of those in Commonwealth, and in 20 percent of those in Chawama. •*Increase labour migration and remittances* In Commonwealth, international migration, mostly male labour, resulted in an increase in the number of households receiving overseas remittance--from none in 1988 to 22 percent in 1992. In Cisne Dos the growth in the shrimp farming industry led to an out migration by some male workers to rural areas.
Social capital	•*Increase reliance on informal credit arrangements* In Chawama, Commonwealth, and Cisne Dos about 50 percent to 75 percent of households borrowed money from friends and neighbours in 1992 to pay for their food. In Cisne Dos 42 percent had credit arrangements with private doctors, and more than half of households in Commonwealth borrowed from informal lenders for medical expenses. In Angyalföld a third of households and 57 percent of the poorest households borrowed from neighbours and relatives to meet daily needs. • *Increase informal support networks among households* Women's kin and neighbour networks share childcare and space. In Chawama and Cisne Dos, some 15 percent to 25 percent of households with children under age ten depended on neighbours for childcare in 1992. •*Increase community-level activity* Communities achieved increased provision of urban services--such as school repairs, latrines, and preschool equipment--through local and international NGO projects that required community participation.

Source: Moser 1998: 7.
Note: All long-term data refer to 1978-92, and all short-term data to 1988-92.

Table 3: Core set of variables for longitudinal analysis

CORE SET OF VARIABLES FOR LONGITUDINAL ANALYSIS (G1/G2 = Guayaquil 1978/88; M1/M2 = Manila 1983/88; L1 = Lusaka 1978; B2 = Budapest 1987)						
A. HOUSEHOLD LEVEL	**G1**	**G2**	**M1**	**M2**	**L**	**B2***
1. Socioeconomic Characteristics						
Household Size	Y**	Y	Y	Y	Y	Y
Household Type	Y	Y	Y	Y	Y	Y
Age of Household Head	Y	Y	Y	Y	Y	Y
Number in Household Economically Active	Y	Y	Y	Y	Y	Y
Primary Employment of Household Head	Y	Y	Y	Y	Y	Y
Household Monthly Income	Y	Y	Y	Y	Y	Y
Household Monthly Income per Capita	Y	Y	Y	Y	Y	Y
Sex of Household Head	Y	Y	Y	Y	Y	Y
Martial Status of Household Head	Y	Y	Y	Y	Y	Y
Place of Origin of Household Head	Y	Y	Y		Y	
Education Level of Household Head	Y		Y		Y	Y
Education Years of Household Head	Y		Y	Y		
Number of Children in Household	Y	Y	Y	Y	Y	Y
Number of Children Under 5 in Household	Y	Y	Y	Y	Y	Y
Number of Children Age 5-12 in Household	Y	Y	Y	Y	Y	
Number of Children Age 13-21 in Household	Y	Y	Y	Y	Y	
Where to When Last Ill		Y		Y	Y	
2. Housing and Infrastructure						
Tenure of House	Y	Y	Y	Y	Y	Y
How Long in House	Y	Y	Y	Y	Y	Y
Cost of House Plot	Y	Y	Y			
Cost of House	Y	Y	Y		Y	
House Cost per Capita	Y	Y	Y		Y	
Rent per Month	Y	Y	Y	Y	Y	Y
Rent to Total Household Income Ratio	Y	Y	Y	Y	Y	Y
Size of House /sq.m. per Person	Y	Y	Y	Y	Y	Y
Size of House Plot /sq.m.	Y	Y	Y	Y	Y	Y
Size of House /sq.m.	Y	Y	Y	Y	Y	Y
Mains Electricity	Y	Y	Y	Y		
Drinking Water	Y	Y	Y	Y	Y	
Type of Toilet Facility	Y	Y	Y	Y	Y	Y
Construction Type	Y	Y	Y	Y	Y	Y
Legal Title to Property	Y	Y	Y			
Number of Rooms in House	Y		Y	Y	Y	Y
Main Mode of Transport to Work			Y	Y	Y	
Cost of Return Trip to Work			Y	Y	Y	
B. HOUSEHOLD MEMBER LEVEL						
Age	Y	Y	Y	Y	Y	Y
Sex	Y	Y	Y	Y	Y	Y
Status in Household	Y	Y	Y	Y	Y	Y
Place of Origin	Y	Y	Y			
Education Level	Y	Y	Y		Y	Y
Education Years	Y		Y	Y		
Primary Employment	Y	Y	Y	Y	Y	Y

* Budapest-level data were used for Angyalfold.

** Y denotes data available.

Source : Moser et al. 1996: 17.

Nevertheless, methodologically interesting questions remain, relating to the robustness of the construction of the comparative data sets on which the study was based. In order to 'create' longitudinal data bases the study identified suitable communities in which household surveys had previously been undertaken. In each of these, existing data sets utilizing similar socio-economic and housing questionnaires, covering one or two time periods, were identified[49]. The basis for longitudinal trend analysis was provided by a core set of variables common to all questionnaires – twenty-four relating to the household, and a further sixteen to housing and basic services. The community panel data set therefore comprised a number of random sample surveys, repeated at different time intervals in *exactly the same spatially defined area* (Table 3 lists the variables, indicating the time period available in each city).

While household panel sets, in which the same household is resurveyed, are more common in economic research, the restudy of communities is more common in anthropological research (with Stern's Indian village study one of the notable exceptions). Sociology as a discipline appears to straddle the divide with both types of studies. (In the case of the UPA, although random sampling procedures meant that the same household was sometimes randomly selected more than once longitudinally, this was not undertaken by design). It could be argued that while household panel data sets obviously provide precise information about a specific sample of households, restudies of communities focus more on societal change at a more aggregate level in terms of a number of defined social and economic characteristics. Ultimately do these tell us as much about who gets out of poverty in trend terms as do household panel data sets?

The choice of methodology in the UPA project related to a combination of the following:

- The objective of the research and associated research questions addressed
- The disciplines of the researchers
- The non-availability of panel data sets
- The lack of time and resources to construct them.

In weighing up the advantages and disadvantages it is clear that in terms of robustness there are considerable advantages in household panel data sets. However, community panel data may be the only option where there is no available panel data, or ultimately the resources do not exist to set them up. However it is important to recognize that this is not the only reason. Above all it relates to the fact that the research is addressing a different set of issues that seek to go beyond income/consumption measures of change and to unpack the more complex 'messy' domain of vulnerability, exclusion, insecurity and risk. This is not to suggest that such issues cannot be economically modelled–but more that the inductive 'emic' methodologies traditionally associated with anthropological research have their own very specific contribution to make.

iii. The introduction of new substantive issues and methodological approaches into existing longitudinal (community) panel data sets?

In designing a further round of longitudinal community panel data in Guayaquil further issues both of substance and of methodology are of particular relevance:

How to 'retrofit' the research methodology to include a quantitative, longitudinal perspective on new/emerging substantive issues? Amongst the issues recognized as critical in terms of poverty mobility are, for instance, social capital, governance, fear, insecurity and violence; child labour; etc. Previously identified as important in the sub-sample survey the challenge is to consider how to incorporate these into the longitudinal community panel data set. In terms of anthropological research methodology these can easily be incorporated but what of community panel data sets?

How to introduce new participatory methodology into a longitudinal community panel data? The legitimacy of participatory rural and urban appraisal (PRA/PUA) methodologies, intensively promoted by Robert Chambers (Chambers 1992) and his IDS team over the past decade, has been enhanced by the successful integration of participatory poverty assessments (PPAs) into World Bank poverty assessments (Norton et al. 2001; Robb 1999), and most recently the 'Voices of the Poor' research project linked to the 2000/1 World Bank Development Report (Narayan et al. 2000a; 2000b; World Bank 2000). After the challenges, time and cost associated with the UPA project, I too have turned to PUA and recently completed three research projects using this methodology. All of these focus on

poor urban community perceptions of violence and were undertaken in Jamaica, (Moser and Holland 1997), Colombia and Guatemala (Moser and McIlwaine 2000; 2001, 2003).

The advantages and disadvantages of PRA/PUA are well-known, with an important ongoing debate about the quantification of PUA data contributing to the clarification of its relevance as a research methodology. In considering the methodology for longitudinal poverty focused research it is also useful to consider both the issue of quantification as well as the suitability of its methodological tools. These are complex issues and of particular interest. By way of concluding this brief draft exploratory paper–to be further elaborated after the workshop– they can usefully be addressed in terms of the following questions:

At what point are participatory methodologies considered representative or robust?

- The 'Voices of the Poor' comprised 81 PPAs and 'was based on discussions of 40,000 poor women and men ….in 50 countries round the world' (Narayan et al. 2000b: 3).
- The comparative Guatemala/Colombia violence study was undertaken in 18 urban communities (9 in each country) with around 150 focus group discussions in each country.

Does this make the 'Voices' more representative than the 'violence' study. What are the criteria by which representativeness is defined?

Can different 'units of investigation' be reconciled in longitudinal panel data sets?

- The basic 'unit of investigation' in PUA/PRA is the focus group. This can be defined in terms of categories such as age, gender, ethnicity etc.
- The basic unit of investigation for longitudinal panel data sets is the household and individuals within it.

Does focus group work done entirely at household level distort / change the methodology?

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Discussant's Comments on Caroline Moser's Paper

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In making these comments I am making a broad distinction between three types of research:

- Household surveys: largely non-contextual, standardized and extractive
- Qualitative research: largely contextual and non-standardised/non-extractive
- Participatory: largely contextual, generating both qualitative and quantitative data and emphasising process and local ownership of a democratised research process.

First, I felt great relief that there were no 'paradigm wars' going on in the workshop, particularly the old and rather sterile debate between constructivist and positivist positions. I felt that the implied position was similar to that adopted by Sechrist and Sidani who argue that qualitative and quantitative methods are equally 'empirical, [and] dependent on observation' (1995: 78). Indeed, both types of method depend upon the same tasks and aims, namely describing their data, constructing explanatory arguments from their data, 'and speculating about why the outcomes they observed happened as they did' (ibid.). We are all part of a scientific community with shared norms (Box 1).

Box 1. Norms of the Scientific Community	
1. Universalism	Regardless of who or where research is conducted, it is judged on its scientific merits.
2. Organised scepticism	Research should challenge and question all evidence and subject each study to intense scrutiny.
3. Disinterestedness	Scientists must be neutral, impartial, receptive, and open to unexpected observations and new ideas. They should not be rigidly wedded to a particular idea of point of view.
4. Communalism	Scientific knowledge must be shared with others; it belongs to everyone. The way in which research is conducted must be described in detail. New knowledge is not formally accepted until other researchers have reviewed it and it has been made publicly available in a special form and style.
5. Honesty	Scientists demand honesty in all research.

Source: Neuman, 2002

This position still leaves us, however, with a few methodological hurdles. The first regards *representativeness*, which can be cleared through robust sampling protocol and institutional embeddedness. This means getting a social statistician on board early in the research process and getting the seal of approval from statistical agencies that policy makers defer to. In cases of non-random research, it is even possible to 'retro-fit' or 'retro-nest' findings within broader household survey population profiles by ex-post measuring of core variables in the research community.

Certainly there remains a tension between depth (allowing analysis, diagnosis and process) and coverage (increasing the precision of inference and extraction) but this can often be resolved through increasing resources and/or 'fitting' the data to larger surveys. There also remains a tension in PRA between purposive sampling and/or self-selection of samples on the one hand versus random (or probability-based) sampling on the other. Here, Ian Wilson (2002), a social statistician, argues for greater use of segmented research in which random and standardised segments are applied separately from contextual and flexible research methods and procedures. Wilson also suggests that we should make more use of PRA to identify sampling frames and stratify populations. Barahona and Levy (2002), also social statisticians, argue that standardised segments can be reduced by using key informants more effectively to gather observable data that otherwise is collected inefficiently with randomly sampled households.

Linked to representativeness is the second hurdle of *comparability*, with a tension emerging between the need for standardised

tools and outputs and (local control over) a flexible research process on the other. Wilson's call for segmentation again helps here: only standardise what needs to be standardised. There is an additional tension over standardising units of research with sample surveys usually based on the household as unit of analysis, while participatory research has a comparative advantage in group-based research. Pat in his research sidestepped this by using a visual PRA-type research with a sub-sampled household. This is a good idea, but PRA's comparative advantage is in group-based analysis.

The third hurdle relates to *trustworthiness* and requires the application of various forms of triangulation that are common now to qualitative (Denzin 1970) and participatory research (Chambers 1997). Chambers makes the point that PRA has the added advantage of improving trustworthiness through 'group visual synergy' or 'observable mutual checking' (although you can also use secret voting in group-based work on sensitive issues).

There is no excuse now for falling at these hurdles. Perhaps the greatest hurdle still to be cleared is that identified recently by White (2002) and Jackson (2002). They argue for respect between disciplines, with Jackson suggesting that we need to move from inter-disciplinarity to multi-disciplinarity. Certainly constructing multi-disciplinary research teams would help drive this process, while avoiding the kind of disciplinary bias identified by Rigdon in Oscar Lewis' analysis of poverty (see Rigdon's paper in this publication).

In wrapping up I would make three pleas. The first is that we should *embrace group-based research*, in combinations of panel, random and self-selecting groups. The application of powerful tools, such as wealth ranking, institutional mapping, seasonal livelihood diagrams and listing and scoring, within a group context produces accurate data and powerful analysis. This type of research also suits the dynamism and fluidity of urban research contexts. We should also accept that such methods can generate *numbers* that complement and cross-check statistics generated 'from above'. Powerful recent case studies (including local health mapping in the Philippines that challenged health statistics on the most important causes of mortality, the use of report cards for scoring public services in India, a social mapping exercise in Malawi that effectively recalibrated the census data, and Moser's recent use of PRA to measure participation in the peace process in Colombia) all underline the power of numbers (see Holland and Abeyasekera, forthcoming).

A second plea is for the more effective use of *analytical frameworks* that can pull together the data and analysis from a range of social science and economic disciplines. There has been much convergence in language in recent years, for example around assets or capital stocks and around risk management, as well as a mainstreaming of governance and institutional analysis. Successful multidisciplinarity requires the adoption of common frameworks for producing integrated analysis around poverty, vulnerability, livelihoods, rights and entitlements and institutions and networks.

A final plea is for greater commitment to *local databases and information systems*. Democratising research means moving away from highly extractive processes and accepting ethical responsibility for ensuring local ownership and construction of knowledge.

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APPENDIX 1- Workshop Program
Development Planning Unit, University College London

Wednesday 28th May 2003

9:00-9:30		*Registration and Coffee*
9:30-10:00		Welcome: Pat Wakely, DPU and Michael Mutter, DFID Introductions: Caroline Moser, ODI: Workshop objectives & programme Deepa Narayan, WB: World Bank objectives Michael Safier, DPU: KaR longitudinal research project
10:00-12:30		**Session 1: Quantitative Poverty Research Methodology**
	Chair:	Carole Rakodi, University of Birmingham
10:00-10:20	Presenters:	Chris Scott, London School of Economics *Some reflections on the use of household panel data for the microeconomic analysis of poverty*
10:20-10:40		Carol Graham, Brookings Institute, Washington DC *Challenges and prospects for panel data on income mobility and subjective well being*
10:40-11:00	Discussants:	Debby Bryceson, University of Birmingham David Satterthwaite, IIED
11:00-11:30		*Coffee Break*
11:30-12:30		General Discussion
12:30-1:30		*Lunch at DPU*
1:30-3:30		**Session 2: Quantitative Poverty Research Methodology**
	Chair:	Deepa Narayan, WB
1:30-1:50	Presenters:	Bob Baulch, Institute of Development Studies, Sussex *Assessing poverty dynamics: Lessons for urban longitudinal studies*
1:50-2:10		Trudy Harpham, South Bank University *Young lives: An international longitudinal study of child poverty*
2:10-2:30	Discussants:	Patti Petesch, World Bank Jo Beall, London School of Economics
2:30-3:30		General Discussion
3:30-4:00		*Coffee Break*
4:00-6:00		**Session 3: Anthropological Approaches**
	Chair:	Nadia Taher, DPU
4:00-4:20	Presenters:	Jeanine Anderson, Catholic University of Peru, Lima *Accumulating advantage and disadvantage: Urban poverty dynamics in Peru*
4:20-4:40		Susan Rigdon, University of Illinois, Urbana *Identifying causes of long-term poverty within families: An illustrative study of how to use an anthropological data base*
4:40-5:00	Discussants:	Ita Muller, WASTE, Amsterdam
5:00-6:00		General Discussion
6:15		*Reception at DPU*

Thursday 29th May 2003

9:30-11:15		**Session 4: Sociological Approaches**
	Chair:	Caren Levy, DPU
9:30-9:50	Presenters:	Janice Perlman, Trinity College *Longitudinal research methodologies in Rio de Janeiro's favelas*
9:50-10:10		Barbara Harriss-White, University of Oxford *A town in South India: Two decades of revisits*
10:10-10:30	Discussants:	Samuel Adenekan, NEBLUS Meera Bapat, Pune
10:30-11:15		General Discussion
11:15-11:45		*Coffee Break*
11:45-1:30		**Session 5: Combined Sociological Approaches**
	Chair:	Bob Baulch, IDS
11:45-12:05	Presenters:	Phakama Mhlongo, University of Natal *Innovations in mixed methods to understand poverty dynamics: A multidisciplinary approach to longitudinal research in Kwa Zulu-Natal, South Africa*
12:05-12:25		Caroline Moser, ODI *Advantages and disadvantages of combining qualitative methods: The experience of a four city comparative study*
2:25-12:45	Discussants:	Karen Moore, University of Manchester Jeremy Holland, University of Swansea
12:45-1:30		General Discussion
1:30-2:30		*Lunch at DPU*
2:30-3:45		**Session 6: Reponses and Relevance of Longitudinal Research Methodology to KaR Research Project**
	Chair:	Caroline Moser, ODI
2:30-2:50	Presenters:	Michael Safier, Ita Muller and Mike Theis
2:50-3:05		Samuel Adenekan, Kaduna
3:05-3:20		Leonard Mulenga, Lusaka
3:20-3:40		Meera Bapat, Pune
3:40-4:00		*Coffee Break*
4:00-5:00		**Closing Session**
	World Bank: Next Steps	Deepa Narayan, WB
	Closing Comment	Caroline Moser, ODI

ENDNOTES

[1] The Core Welfare Indicators Questionnaire is a short instrument (4 pages long) which uses multiple choice questions on household demographics, assets and consumption correlates. Answers to questions are machine scannable, validation procedures are pre-written, and output features are automated. These features permit rapid processing of the data. The CWIQ was developed by the World Bank and has to date been used mostly in Africa. For further information visit the CWIQ website at http://www.worldbank.org/afr/stats/cwiq

[2] This is the same technique as that used in disaggregated spatial poverty mapping which combines data from the Population Census with information from a household survey such as the LSMS/HBS.

[3] The findings from the research have been published as: Birdsall and Graham (2000); Graham and Pettinato (2002a; 2002b; 2001); Graham et al. (2003).

[4] Cuanto has actually conducted the ENNIV in years as early as 1985, but the survey was not nationally representative due to guerrilla activity in rural parts of the country. RLMS data, meanwhile, can be downloaded from the following website: www.cpc.unc.edu/projects/rlms.

[5] The Latinobarometro survey consists of approximately 1000 interviews in 17 countries in Latin America, providing nearly 18,000 observations annually. The samples are conducted annually by a prestigious research firm in each country, and are nationally representative except for Brazil and Paraguay. The survey is produced by the NGO Latinobarometro, a non-profit organization based in Santiago de Chile and directed by Marta Lagos (www.latinobarometro.org). The first survey was carried out in 1995 and covered 8 countries. Funding began with an grant from the European Community and is now from multiple sources. Access to the data is by purchase, with a four year lag in public release.

[6] For a complete picture of the statistically significant differences between frustrated and non-frustrated upwardly mobile respondents, see Graham and Pettinato (2002b).

[7] A survey conducted by Richard Webb and Cuanto and Lima in the 1980's, for example, found that workers of all income levels consistently doubled their current income when asked how much income would be 'enough'.

[8] For some of the difficulties encountered in measuring health status and establishing causality, see Deaton (2003).

[9] For surveys of these studies, see Baulch and Hoddinott (2002), Hulme and Shepherd (2003), and Yaqub (1999).

[10] Other useful geo-referenced data (elevation, straight-line distance to nearest school, health facility, market) can also be collected if GPS technology is used by survey teams.

[11] For example, in the Birth to Ten Study in South Africa, a free phone number was set-up to allow families to contact the project and regular gifts sent to the parents of cohort children. In the Indonesia Family Life Survey, enumerators working on tracking in pairs and were given a financial reward for each respondent they located.

[12] Note that with some non-monetary indicators of poverty (such as school enrolment or child mortality) the above question of modelling strategy does not arise, since the dependent variable is an inherently discrete variable.

[13] Others, for example Grootaert and Braithwaite (1998), defend the use of limited dependent variable models on the grounds that they are more robust to measurement error and outliers in the welfare measure, and do not assume parameter constancy across the entire welfare distribution.

[14] This paper draws upon Harpham et al. (2003). The first phase of Young Lives has been funded by the UK Department for International Development (DFID) and is implemented by a consortium of: Reading University, London School of Hygiene and Tropical Medicine, London South Bank University, Institute of Development Studies, South African Medical Research Council, UK Save the Children Fund and numerous partner institutions in the four developing countries.

[15] Further details about the research presented here can be found in the following sources: Anderson (1991; 1996; 2000; 2002a; 2003); Anderson et al. (1979).

[16] The 1978 wave had a budget of some $10,000, with some coordinating costs borne by the Overseas Education Fund, the Washington contractor that led the five-country study. The 1992 wave had a budget of US$36,000, complemented by a Ford Foundation grant in support of a study of local democracy that covered a large part of the costs of the inventory of community organizations and their interrelations. The 2001 wave had a budget of US$62,500. The analysis and writing is not yet over, however, and will largely be supported by a Rockefeller Foundation Fellowship in Residence at the University of Stony Brook, New York. The increase in the amounts of funding needed reflects the growth of the households and numbers of persons included and also the growing complexity of the study, the analysis, interpretation and write-up.

[17] In the 2001 wave, some substitutions and free variation around this basic sampling scheme was permitted in order to develop the fullest possible picture of each household group and its development over time. Thus, where the target subjects were not available or refused to participate ('I already told you everything about my life 10 years ago!') a wide range of family and household members was drawn on (adolescent children born at the far end of the original couple's reproductive cycle, new spouses).

[18] See Gilmore (1990). The concept refers to a pattern, common in rural southern Spain, of assimilation, in a household that begins as a nuclear family, of the wife's mother and aunts as they age and become widows, unmarried sisters, and other assorted female relatives. Willingly or unwittingly, they establish a strong gender and kin alliance that drives the husband from the household (in the Spanish case, legitimizing his evenings spent at the cantina with male relatives and friends).

[19] The first phase of this work was supported in part by a grant from the Social Science Research Council's Puerto Rican Poverty Initiative. The 150-page report submitted to the SSRC contained the genograms mentioned in this paper. A brief summary of that report was published (Rigdon 1998).

[20] See especially the report on the Wenner-Gren conference organized by Fox, Silverman and King (2000), whose purpose was to evaluate the utility of the concept in contemporary anthropological research and writing.

[21] Response to Charles Valentine's critique (1969).

[22] These points are especially clear in the proceeding of Race and Poverty Seminars organized and led by Moyniham in 1967 and 1968. Lewis' comments there reflect a much more nuanced understanding of the policy implications of his work than he conveyed in the culture of poverty thesis.

[23] This is a brief summary of how Lewis collected genealogical data. Early interviews in a household included the administration of a basic census questionnaire that recorded names, ages, birthplaces, marital status of household heads, and schooling/literacy status of all household residents. In addition, total number of pregnancies, stillbirths, infant, and childhood deaths in immediate family were recorded. Setting birth dates for both the living and dead was often tricky in Puerto Rico. Many of the older informants were illiterate and a few could not even count. In a number of cases, birth records has been destroyed by hurricanes. Setting ages was at times done with reference to hurricanes (as in 'my daughter was born the year of San Felipe'), using a chronology of major hurricanes prepared by Lewis's field staff for just such use.

In the 1st or 2nd interview the investigator sketched out the immediate family to locate ego within the extended family. He/she continued to expand and clarify this information in the early interviews to a point when the investigator could identify the most knowledgeable potential informants on family history, as well as the eldest living members of the family, since they were key to reconstructing earlier generations. Every informant was asked to list all known relatives, living and dead. Using this information, the interviewing branched out from the primary household to others in the extended family, including in-laws and fictive kin. A typical family study had 15 to 20 informants and the largest had more than fifty.

Anadel Snyder, a field assistant who worked with Lewis in Mexico, Puerto Rico and Cuba, specialized in genealogical interviewing and drew elaborate tress for the families she worked with, as well as detailed analyses of kinship relations. Lewis was especially interested (probably drawing on the work of Alison Davis) in the role of kinship networks in the survival strategies of the poor.

[24] This is a brief period compared to his study of the Martínez family in Mexico, which lasted 30 years. The Lewis and Sánchez family connection has continued unbroken for almost 50 years.

[25] The genograms were created (copied from my hand drawn versions) in Micrographx Designer for IBM by Mary Jo Zeidler. Zeidler is a graphic artist who specializes in archaeological illustrations.

[26] The software used to create the charts was so proprietary the original files are unreadable in any graphics software now in common use. Portable files were created by scanning printouts and saving them as .tif files; they can now be refined and updated in Photoshop or other graphics software.

[27] Here and in following paragraphs I am quoting some of the findings from the SSRC project published in Rigdon (1998).

[28] Letter to Carolina Luján, November 12, 1968.

[29] Letter from Oscar Lewis to Janet Brown, February 17, 1969.

[30] I was almost killed myself, one sunny day while waiting for the people to arrive for the participatory community history reconstruction in Nova Brasilia. The meeting was set for a Sunday at the Resident's Association and had been approved, but while waiting I decided to take pictures of some of the same places I had photographed 30 years ago. Soon I was surrounded by angry young men, well armed and wanting my camera. Evidently I had taken pictures of some prohibited areas without

knowing it. Because two of the community residents on their way to the meeting intervened, and we went to the Resident's Association where the President was able to speak for me, they only took my film, not the camera. But a group of them were waiting for me 6 hours later at the end of the day's meeting, and I had to be put into a taxi in a big hurry.

[31] Mehta (1994).

[32] This is the district in northern Tamil Nadu where the socio-economic impact of the High Yielding Varieties of rice was being investigated by an interdisciplinary team (Farmer 1977; Hazell and Ramasamy, 1991; Harriss-White and Janakarajan 2003).

[33] M.V. Srinivasan is researching Arni's labour markets; Elisabetta Basile is using Arni to study character in Indian capitalism; Jason Stanley has researched the cluster of goldsmiths and Camilla Roman is studying the acquisition of skills, labour market entry and child labour.

[34] This is the return net of cash costs and expressed as a percentage of fixed capital and own working capital.

[35] Balihar Singh Sanghera is the only person known to me to have carried out real participant observation of (agricultural) trade, apprenticing himself for a year to Punjabi relatives in the Birmingham Bull Ring Market of the UK and gaining unprecedented insight on so-called 'non-price' aspects of trade in the process.

[36] This was to maintain a constant 'investigator bias' over twenty years particularly where information is sensitive, as is the economic data for the largest firms.

[37] This paper is excerpted from a longer draft paper with the same title. The project is a collaboration between the University of Natal, Durban, the International Food Policy Research Institute, the University of Wisconsin, Madison, and the Catholic University of Peru. It is funded by the John D. and Catherine T. MacArthur Foundation. We warmly acknowledge the contribution of the research assistants in the qualitative component of the research, Sibongile Maimane, Mamazi Mkhize, and Zweni Sibiya.

[38] A new round of survey and qualitative data will be collected in 2004.

[39] The PSLSD was sponsored by the World Bank and led by the Southern Africa Labour and Development Research Unit (SALDRU) at the University of Cape Town. KIDS was a collaboration between the University of Natal, the International Food Policy Research Institute, and the University of Wisconsin, Madison.

[40]The definition of poverty has become increasingly broad and heterogeneous in international debates, and is itself the subject of many studies (see Maxwell 1999; May, 2000; Narayan et al. 2000). For the purpose of the 1993 and 1998 surveys, the poverty headcount measure used a household subsistence line (HSL) calculated based on household subsistence costs, taking into account demographic and residency structure. Households whose total expenditures fell below their HSL were considered 'poor' (Carter and May 2001).

[41] This section draws on Moser et al. (1996) and Moser (1998).

[42] For a description of the 1978-88 research methodology, see Sollis and Moser (1991).

[43] After detailed consultation with all the research teams this was defined as 'people who usually live and eat their meals together'.

[44] This was intended to ensure uniformity across research communities in fieldwork methodology and data analysis

[45] For instance in Commonwealth, Metro Manila, an important issue was teenage sons who were neither working nor attending school. In Cisne Dos, Guayaquil, personal safety was identified as a critical determinant of household mobility and choice of transport mode. In Chawama, Lusaka, the provision of family planning services, pre-school education and increasing school fees were all important. In Angyaföld the issues were rent arrears, the transfer of housing tenure, whether work was registered or not (and the effect of this on benefits), and the importance of informal networks of childcare.

[46] This section summarizes results discussed in detail in Moser (1996; 1998).

[47] 1978-92 community level panel trend data was available for Chawama and Cisne Dos; 1988-92 trend data was available for Commonwealth; the lack of trend data for Angyalfold meant that it was excluded from all trend analysis of research results.

[48] Indeed a World Bank Vice President checked the document and, with a red pen, eliminated any mention of the word 'adjustment' through the final research report, substituting the word 'crisis', that was deemed to be more appropriate.

[49] In addition to the 1978-88 community panel data set from Guayaquil (provided by the author), in Lusaka, Carol Rakodi's random sample survey of 309 households, undertaken in 1978 was identified as a suitable set of longitudinal panel data. The survey was part of a World Bank/IDRC evaluation

research program. In the Philippines the only available data base was a 1988 Housing and Health Survey undertaken by Orville Solon – which also had considerable data constraints. In Budapest no micro-level study to provide a longitudinal panel data base was available with the National Household Survey the only source and not suitable for comparative purposes.