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Parsing the Urban Poverty Puzzle

A Multi-generational Panel Study in Rio de
Janeiro's *Favelas*, 1968–2008[1]

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Abstract

This paper describes the methodology of a longitudinal multi-generational study in the *favelas* (shantytowns) of Rio de Janeiro from 1968 to 2008. Major political transformations took place in Brazil during this interval: from dictatorship to 'opening' to democracy; major economic transformations from 'miracle' boom to hyperinflation and crisis, and to relative stability; and major policy changes from the removal of *favelas* to their upgrading and integration. However, despite the cumulative effects of these contextual changes, poverty programmes and community efforts, the *favela* population has continued to grow faster than the rest of the city and the number and size of the favelas has consistently increased over these decades.

Keywords: urbanization, Brazil, poverty, community, slums

JEL classification: O18, R21, R23, N96

1   Introduction and overview

This paper describes the methodology of a longitudinal multi-generational study (Perlman 2010) in the *favelas* (shantytowns)[1] of Rio de Janeiro from 1968 to 2008. Major political transformations took place in Brazil during this interval: from dictatorship to 'opening' to democracy; major economic transformations from 'miracle' boom to hyperinflation and crisis, and to relative stability; and major policy changes from the removal of *favelas* to their upgrading and integration. However, despite the cumulative effects of these changes in policies and community efforts, poverty has persisted and the number of *favelas* has increased consistently. The *favela* population has grown faster than the rest of the city in every decade from 1950 to the present. See Table 1.

Table 1: *Favelas* grew faster than Rio

| Year | Population of *favelas* (1) | Total population of Rio de Janeiro (2) | (1)/(2), % | Growth rates (%) for: | |
				Favelas	Rio de Janeiro
1950	169,305	2,337,451	7.24	-	-
1960	337,412	3,307,163	10.20	99.3	41.5
1970	563,970	4,251,918	13.26	67.1	28.6
1980	628,170	5,093,232	12.33	11.4	19.8
1990	882,483	5,480,778	16.10	40.5	7.6
2000	1,092,958	5,857,879	18.66	23.9	6.9

Source: IBGE (2000).

The single exception to the growth of the *favela* outpacing that of the city was during the decade of the 1970s when close to 100 *favelas* (over 100,000 people) were removed.[2] The next census will be in 2010, but as of 2009 the trend seems to be intensifying. There are 1,020 *favelas* in Rio; they have spread out over the hillsides merging into each other to form vast complexes; and their population is estimated to exceed two million people.

My original study of Rio's *favelas* took place in 1968–69 in three *favela* communities. Thirty years later, in 1999, I returned to these communities in search of the original study participants and their descendants. I re-interviewed the original interviewees and a

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[1] We will use the Brazilian word *favela* for the informal squatter settlements or shantytowns built on the hillsides, marshlands, or other undesirable or unused parcels of land in Rio de Janeiro. See Perlman (2010).

[2] Even then, however, if the comparison had been done more precisely, i.e., comparing the growth of the *favelas* versus the non-*favela* population in Rio, the *favela* growth would have been greater. The comparison is done using the growth rates of the city of Rio de Janeiro as a whole which includes *favelas*.

random sample of their children and grandchildren. With basic information on the parents of the original sample, this enabled me to trace the dynamics of poverty and social/spatial mobility across four generations. This intra- and inter-generational follow-up focused on the individual as the unit of analysis. To see whether these trends were specific only to the families located in, and to follow the changes of, the *favela* communities, I then took the communities themselves as the unit of analysis, interviewing new random and leadership samples in each.

The results of the panel study and the multi-generational study showed significant improvement in access to urban infrastructure and community services, as well as in housing quality and building materials, consumer goods, and educational levels. But the story is more complex. For the children and grandchildren's generation, unemployment nearly doubled. We found that their educational gains were not reflected in incomes for people residing in *favelas*; that very few have professional jobs, and even fewer had made it to the more desirable areas of the city. There was also a continuing lack of voice and political participation despite the return to democracy in 1985.

Barriers to upward mobility include economic obstacles such as labour market conditions, the stigma of living in a *favela* (an impediment to being hired), and extreme inequality levels. Political obstacles include a lack of voice for the urban poor and exclusion from full citizenship rights (such as protection of life and limb or equality under the law). They are Brazilian citizens (as were their parents, grandparents and many generations back) but the hope of gaining greater bargaining power when democracy was re-instated in 1985 after 21 years of military rule has not been borne out. Party politics and deals between candidates and the drug lords who control many of the *favelas*, have led to post-dictatorship forms of corruption and clientelism. The gains in material wellbeing have been offset by loss of personal security as levels of violence related to drug and arms traffic have skyrocketed.

To some extent, these obstacles are offset by individual characteristics (such as a sense of agency, optimism, and perseverance), which correlated significantly with several measures of 'success', including socioeconomic status, income, exit from *favelas*, political participation, and self-reported satisfaction. Males, youth, individuals with smaller families, and those raised in communities closer to the upscale neighbourhoods of the city had a distinct advantage in socioeconomic and spatial mobility. However, it was mulatto females as a group who showed the greatest upward mobility between 1969 and 2001, as measured by starting in the lowest quintile (fifth) of the sample and ending up in the highest.

Despite the daunting challenges of everyday life, almost one third of the interviewees in original sample had left the *favelas* for legal, albeit peripheral, neighbourhoods, with another third living in the public housing projects to which they were assigned when their *favela* was removed. See Table 2.

These are extraordinarily optimistic people. They live on hope. About half of the sample in each generation report that their success in life has exceeded their own expectations, and still more believe that their lives will be better in the next five years.

Table 2: Where are the interviewees now, 30 years later?

	Favela	Public housing project	Legal neighbourhood
Random sample			
Original interviewees	37%	25%	34%
Children	36%	16%	44%
Grandchildren	32%	13%	51%
Leadership sample			
Original interviewees	11%	21%	61%
Children	24%	17%	56%
Grandchildren	28%	6%	58%

2   The original study and the myth of marginality

The three *favelas* I selected for my original research in 1968–69 were at varying distances from the city centre. They represented the three areas of Rio de Janeiro in which poor people could then live:

- Catacumba – a *favela* in the wealthy South Zone;

- Nova Brasília – a *favela* in the industrial North Zone;

- Duque de Caxias – a municipality in the Baixada Fluminense, where I divided the sample (as an experimental control); half of the interviewees were selected proportionally from three *favelas* and the other half from the five poorest *loteamentos*.[3]

Although no three favelas could fully represent all of them, I took care to select communities that were as different as possible from one another in several key dimensions. These key criteria were: distance from the centre (which, in Rio, is the same as distance from the urban elite); topography (steepest was Catacumba, Nova Brasilia was built on rolling hills, and Caxias was relatively flat); date of settlement; type of settlement; and population density. At the time of the study, Catacumba had a density of 110,000 inhabitants per square kilometre (the entire favela was only one square kilometre), Nova Brasilia had 34,000 inhabitants per square kilometre, and Caxias had 1,400 inhabitants per square kilometre, though its density dropped radically from the centre outward to the urban fringe. In the entire municipality of Caxias, covering 442 square kilometres, there were 600,000 people. As a point of comparison,

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[3] *Loteamentos* are subdivisions selected according to their lack of urban infrastructure – roads, running water, sewerage or electricity – comparable in services to the *favelas*, except that they were legal. They can be loosely translated as in-service subdivisions (or lots), some being clandestine (illegal) and others legal.

the density in Rio city today is considered high at 4,781 inhabitants per square kilometre, but the density in Rio's *favelas* is about ten times higher at 31,700 inhabitants per square kilometre – just about what Nova Brasilia was in 1968 (IBGE 2000).

I spent six months living in each of the three areas and, with the help of a team of Brazilian students, interviewed a total of 750 people; 250 from each area. Two hundred of these were selected at random from men and women 16–65 years of age.[4]

A two-stage random sample of 200 men and women of 16–65 years of age was drawn from each of the three communities. In addition, 50 leaders from each community were selected by position (leaders of the various community organizations) and reputation (a network analysis of 'who would you go to for advice?'). The two samples were taken in order to see the differences between the '*favela* elites' and the ordinary residents at that time and in the future.

The other 50 people from each location were chosen because they were considered leaders: they were either official heads of community organizations (positional sampling) or those that others turned to for advice (reputational sampling). In Perlman (2010), I refer to these two groups as the 'random' and 'leadership' samples. My intent was to compare the life trajectories of the ordinary residents with those of the '*favela* elite' at that moment and over time.[5]

Data collected using an extensive survey instrument with a year-by-year life history matrix (tracing changes in residential, occupational, educational, and family history)[6] was triangulated with in-depth interviews, participant observation, and secondary data.[7]

The resulting book, *The Myth of Marginality: Urban Poverty and Politics in Rio de Janeiro* (Perlman 1976), was part of a major paradigm shift from seeing the *favelas* as a problem to considering them as a solution to the lack of low-income housing for newly arrived migrants from the countryside. Even more important was the shift from considering *favela* residents as 'criminals, vagabonds and prostitutes' who were mal-adapted to urban living, parasites on the economy, political radicals, and social outcasts to recognizing these people as upwardly aspiring, hard-working people who had risked all for the chance to give their children greater opportunities in their lives. They were not 'marginal' to society but, rather, were 'marginalized' by it. The negative stereotypes had been used to support policies of massive *favela* eradication; once dispelled, the policy would be to offer people title to their land, to help with on-site upgrading of

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[4] This was done in two stages; first, selecting households using a random numbers table after mapping and numbering each household; second, selecting individuals systematically (one in every five) in a running list that carried over from household to household. In this way, rather than ending up with a sample of households, I was able to achieve a random sample of residents in the communities, meaning that some households had more than one person selected and some had none.

[5] The idea of including an 'elite' sample came from my work with Frank Bonilla at MIT, who was conducting a large-scale study in Venezuela and creating a simulation that could play out future scenarios.

[6] The life history matrix was inspired by the work of Jorge Balan, Harley Browning and Elizabeth Jelin in Monterrey, Mexico.

[7] For a complete description of the method, see Perlman (2003).

infrastructure, and to allow them to develop into working class communities, while setting aside serviced areas with designated individual housing plots for new migrants.

3   Reasons for a re-study

As it happened, people did not receive title to land (although massive removal did stop by the end of the 1970s). *Favelas* and their populations continued to grow faster than the rest of the city, and the stigma against them (and fear of proximity to them) increased sharply after the rise in drug traffic and violence that started in the mid-1980s.

Meanwhile, the results of a variety of well-intentioned poverty alleviation policies and programmes were disappointing and left the city, state and national governments, and multi-lateral agencies wondering what to do. Even as slums were upgraded, new ones were growing faster, and there was a sense of futility at being behind the curve. A better understanding of the dynamics of urban poverty was clearly needed; not a snapshot of a single moment or a set of moments across time but, rather, a grasp of the ongoing processes perpetuating poverty and for overcoming it.

A re-study of the same individuals and their descendents was needed because poverty is not a static state, and very little is known about the dynamics of urban poverty over time and across generations. Few longitudinal studies exist on urban shantytowns and those that do exist, tend to study the same communities but not the same individuals, thus failing to address the process.[8] We are still ignorant of what happens to people over their lifetimes, what happens to their descendants, and why. A few studies have tried to answer these questions using secondary data, rather than primary fieldwork, to explore social mobility by creating similar cohorts of people as proxies for a panel of the same individuals, and working with large-scale household survey data over time to explore social mobility.

However, it is only through a panel study of the same people, their children, and their children's children that we can see how patterns of context, attitudes, behaviour, and luck play out in the struggle to overcome the exclusion and de-humanization of poverty. The re-study was divided into three phases and took several years to complete.

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[8] There are, of course, many panel studies, but very few for urban shantytowns – in part, because conditions for this are virtually prohibitive. No street addresses, registries, or official records of slum populations exist, and people tend to use nicknames because so many have the same names. It is always a risk to conduct research in what the city considers 'no man's land', but that risk has increased exponentially with the rise of drug trafficking, and the violence among gangs and police. It is no surprise that in these conditions this study took five years to complete.

4 The three phases of the re-study

4.1 Phase I: Exploratory research (1999)

In 1999, we began assessing the feasibility of finding the original study participants after 30 years. I had stayed in touch with the families with whom I had lived, and had kept the original handwritten questionnaires of the 750 interviewees. It was a daunting challenge, not only due to the danger of violence, the lack of street addresses, and the many people who were no longer in the same location, but especially because in order to protect anonymity during the height of political repression, I had not used the last names of the study participants.[9]

The first step was to visit the homes in which I had lived and ask for help in locating any person who had been part of the initial study. We compiled a list of every person interviewed in each community with basic information to help identify him or her, such as age, names of the children, and birthplace. This was necessary, as there were many people with the same last name in the same communities who remembered the 1969 study and believed that they had been part of it when, in fact, they had not.

When we found a study participant, we interviewed him or her using a checklist of items about which we wanted to learn. We collected their personal narratives and observed how they described their experiences, how much they recalled, what they identified as benchmarks in their own lives and in the evolution of their communities. We paid special attention to the meanings they gave to words, concepts, and images they used so as to help us update the wording of the questionnaire.

During this feasibility study we succeeded in:

- Recovering, recoding, and digitizing the data from the original handwritten questionnaires;

- Negotiating access to the communities with the local residents' associations and permission to conduct the study, with certain stipulations;

- Conducting in-depth, open-ended interviews with over 50 people;

- Testing the feasibility of reconstructing and charting major life events of (and learning how to use cross-referencing among) family, residential, and occupational changes in order to help jog memory; and

- Refining the concept's analytic approach, hypotheses, and questions to be answered.

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[9] In order to find the participants, we started by locating their original households within the *favela*. If they had moved, we asked for help from the current occupants of the residence, the neighbours, local organizations, stores, bars, and so on. Often, a family member, relative, or friend was able to tell us where the original interviewee was living, or where other family members could be found. As many people have the same name, we took great care to ensure that the person identified was, indeed, the person we had interviewed in the original study. To achieve this, we provided the search team with a profile of each original interviewee (OI), including: age; gender; race; state where born, and where mother and father were born; number; names and ages of their children; and so on.

Once it was clear that the study could be done, and that it could play a key role in understanding the processes of individual and community change, I designed the research project to cast light on these changes from a variety of perspectives, using four units of analysis: individual, family, household, and community (see Box 1).

Box 1: Units of analysis

Individual level: *What happened to the individuals who participated in the original 1968–69 study?*

Starting in 1999 and going on through the beginning stages of the field interviews in 2001, I was able to locate an unexpectedly high percentage of the original group, given particularly the 30-year time lapse and the fact that I had neither last names nor street addresses.

Family level: *What happened to the children and grandchildren of the original interviewees?*

To find out, we listed all the children from all the original study participants (both dead and alive) and randomly sampled among them. We also did the same with their own children to select the sample of grandchildren. Each questionnaire was coded in such a way as to trace the family lineage easily. We also included a section of ten questions for each living member of the nuclear family, regardless of where they lived.

Household level: *How had the household composition changed with the passing of the three decades?*

I wished to find out how many people were living in the current household, what their relationships were to the person I had interviewed originally, and who was considered the household head. I was also eager to learn who contributed money toward household expenses, whether living in the household or not.

Community level: How had the communities changed?

To achieve this – as described below in Phase III – I drew new random samples from the original *favelas* and *loteamentos*, applied the same questionnaire I had used in the same locations in 1969, and conducted a series of contextual interviews similar to those used in the earlier study.

4.2 Phase II: Intra and inter-generational interviews (2000–02)

The community and student research teams continued searching for original study participants during 2000 and 2001, until we finished the interviews. Half of the participants were located in the same communities in which they had been living during the initial study, or in the same apartment to which they were relocated when their community was eradicated. The other participants were found in various locations

around Rio and in six other states, where I went to interview them. In the cases where we found the spouse of children of one of the original study participants who had died, the life history matrix for that person was filled in with the help of family members.

Once the interviews were completed, we coded the open-ended questionnaires and the life history matrices, and began the analysis. The preliminary findings – comparing the answers of the same people in 1969 with their answers to the same questions 30 years later – revealed a great deal about how quality of life and perceptions had changed over the years. However, it conflated the changes of the time period with the changes in the phase of the individuals within their own lifecycle. It was misleading to compare the income, consumption, occupation, or participation of a person at the height of his or her earning power and with young children at home, to that of the same person once they had retired and their children had left home.

The solution to this problem had already been built into the study design. We created a list of all the living children of everyone we found from the first study and drew a random sample from that list. The children of the original study participants were close to the same age in 2001 as their parents had been in 1969, and at roughly the same point in their lifecycle. The mean age of the original study participants in 1969 was 35.7 years; the mean age of their children in 2001 was 39.6. In terms of age cohorts, 43 per cent were at the height of their earning power (31–45 years old) in 1969, and 48 per cent of their children were in that cohort in 2001.

The decision to include the grandchildren was made in response to the disappointing outcomes of the children. The life improvements that the participants in our original study had hoped would come with the move to the city had not been fully realized in their children's generation, and we suspected that some of that upward mobility would take another generation to show up. So, we decided to include one more generation and interview a random sample of all the children's children.

4.3 Phase III: Communities revisited and context recovered *(2003–05)*

The final phase of the study involved returning to the original territory of the three communities to see what changes had taken place since the 1969 study. To do that, we selected new random samples from the original study sites and applied an adapted version of the questionnaire and life history matrix that had been used in 1969. This would enable us to compare the communities at two points in time, a fact that Phase II did not address.

By interviewing 400 randomly selected residents (men and women aged 16–65) and 25 leaders in each community, we were able to see how community composition had changed, how urban services had changed, and the extent to which attitudes and behaviours had changed.

This strategy helped give us perspective on the validity and reliability of Phase II findings. It provided a way to detect any bias that might result from the particular sub-sample we were following from one generation to the next. If such bias were found, we could attempt to mitigate the bias through weighting and other techniques.

To draw a random sample in parallel fashion as in the earlier study, we created detailed maps, with each housing unit clearly delineated. These maps were of the part of Nova

Brasilia corresponding to its 1969 boundaries, and of each of the three *favelas* and five subdivisions we had studied in Caxias. We then used a random walk technique to select households and the same systematic sampling technique within the households as in 1969. But, as the average family size had declined, instead of selecting one in every five households we selected one in every four.

Our biggest problem related to Catacumba. How could we draw new samples from a place that no longer existed? After much discussion with Ignacio Cano, the Brazilian sociologist who was our methods consultant in Phase II, and the project director for Phase III, we decided to sample the residents of the Quitungo-Guapore Housing Complex where the majority of people from Catacumba had been assigned to apartments. Sampling apartments within the five-story high-rises became our standard procedure, and we selected individuals from a running list of household members. The sample ended up including people who had never lived in Catacumba and some who had never lived in a *favela*; they had, however, bought an apartment from someone who had.

To avoid this, we could have chosen to include only those *conjunto* residents who had previously lived in Catacumba, or whose parents or grandparents had lived there, but that would have created even larger problems of comparability. In all the other communities, there were people in the 2003 random sample who in 1969 had neither lived there, nor had any relative living there. To be consistent, we chose to do a random sample, which proved quite revealing. It showed that, overall, those who moved into neighbourhoods were best off and those who stayed in *favelas* were worst off, with *conjuntos* falling somewhere in between. A *conjunto* is a step closer to legitimacy than a *favela*, but by no means is it considered a part of the city's formal housing.

4.4 Community histories

It was essential to our understanding of change and continuity to reconstruct the histories of the communities. To that end, I conducted dozens of 'contextual interviews' about the present conditions of each, and the key events and milestones of the past decades.[10] I had used a similar contextual questionnaire in 1969, but much greater detail emerged in the second study. The source of this increase in detail seems to have been the older people, who had more free time to talk and thus preserve their history. The popular discourse of the past 10 to 15 years about *raises* (roots) made people feel a sense of pride in the history of struggle in their *favelas* – a struggle they had been in the midst of in 1969.

At the end of 2001, we convened an open meeting in each study community to reconstruct their histories collectively, using a technique called rapid participatory diagnostics (DRP). It was exactly what we needed to reconcile the problems of selective memory and different recollections that arose in the contextual interviews. We videotaped each session and transcribed these to achieve the best possible record of the community histories that had been almost lost.

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10 For some, I took notes by hand translating into English as I wrote; others enjoyed having their recollections tape-recorded, which were later transcribed.

In the final stage of the study, we identified the most and least successful people from the original sample and interviewed them, trying to determine any patterns that might be linked to upward mobility.

Box 2: Overview of sampling

Total number of interviewees: 2286

Phase I: 54 interviewees

Phase II: 883 interviewees

Phase III: 1,349 interviewees

Phase I: 54 interviewees:

(1)   36 from the original sample

(2)   18 from other *favelas*

Phase II: 883 interviewees:

(1)   308 original interviewees (165 still alive: 126 from random sample; 39 from leadership sample; 143 deceased (life histories reconstructed by closest relatives, generally spouse and children): 90 random; 53 leaders

(2)   367 children of original interviewees (295 from the random sample and 72 from the leadership sample)

(3)   208 grandchildren of original interviewees (158 grandchildren of the random sample and 50 of the leadership)

Phase III: 1,349 interviewees (1,299 in survey, 50 in-depth interviews)

(1)   1,299 new samples in same communities: 400 people selected at random; 25 people selected for roles in leadership positions or as opinion leaders in each community (1,200); 24 extras

(2)   50 semi-structured interviews: 40 with the most successful original interviewees; 10 multi-generational with all members of selected families.

5   Issues, approaches, and lessons

Along the way, we encountered problems of many types: conceptual, methodological, technical, and logistical. They included:

- Locating original interviewees and verifying their identities;

- Establishing contact with and cooperation from family members of original participants who had since died;

- Gaining access to the communities in the face of control by drug dealers;

- Protecting the research team from the high levels of violence in the *favelas*;

- Formulating a revised questionnaire that would be comparable to the original but relevant to the current moment;

- Recreating the contextual histories of the three communities;

- Dealing with individuals' selective memories and memory loss; and

- Combating the bias that might result from differences in the 40 per cent of the original sample we were able to locate and the 60 per cent we were not.

I touch on a few of the problems here in order to help others who might undertake such studies in the future. Indeed, longitudinal panel studies in the squatter settlements of different cities and countries would be an excellent resource for addressing the questions that any single case study, including this one, leaves unanswered.

5.1 Relocating original interviewees

We faced several serious difficulties in relocation, including the fact that 30 years had passed; that one of the communities had been demolished and the residents scattered to several public housing projects; and that, in the interests of confidentiality during the height of the dictatorship, we had worked on a first names basis only (except among those in the leadership sample).

Approach

I started by 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 locate the families. We therefore composed teams of community residents, many of them children or neighbours of original study participants. We developed a training programme for them and a form of remuneration, based on hours worked and on the successful location of original participants.

They started at the original address and, if the person were no longer there, asked for any leads or information. It is interesting that 50 per cent of those we found were either in the same house or in the same neighbourhood, making our task easier. If no information was available at the original address, the team 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 hangouts, and so on.

We even created posters with the name of the study saying 'We want to find you again', showing a photo of me in 1969, and a drawing that had been used on the cover of my original book – knowing that some of them had seen it, and giving our office address and phone number. We made it as easy as we could for the original participants to contact us, with the help of announcements on local community radio stations and in local newsletters, although the results of these efforts were limited.

What we learned

We were surprised by our initial results. The percentage of people who had relocated was highest in the community where we expected it to be lowest (Catacumba, which had been eliminated in 1970), and lowest where we expected it to be highest (Caxias, where half the interviewees were land owners). The reason, we came to understand, was the strength of the local social networks. The Catacumba residents had fought so many collective battles for water, electricity, sanitation, street paving, and, finally, against removal, that they had forged more strong bonds with one another despite their geographic separation. Those in the *loteamentos* had not participated in collective struggles for urban services, had not formed as many community organizations, and, therefore, did not know their neighbours as well. When a family moved out, the sale was simply a market transaction and few kept in touch with former residents. Moreover, many of the names and street numbers in these neighbourhoods had been changed – even some of the names of the neighbourhoods themselves. *Favelas* retain a living memory that private property does not.

This phenomenon explains the results charted in Figure 1. Clearly, we had a much greater success rate with the leaders, not only because we had their last names, but also because they tended to be widely known.

Figure 1: Percentages and absolute numbers of the 750 original study participants from 1968–69 who were located again in 1999-2001.
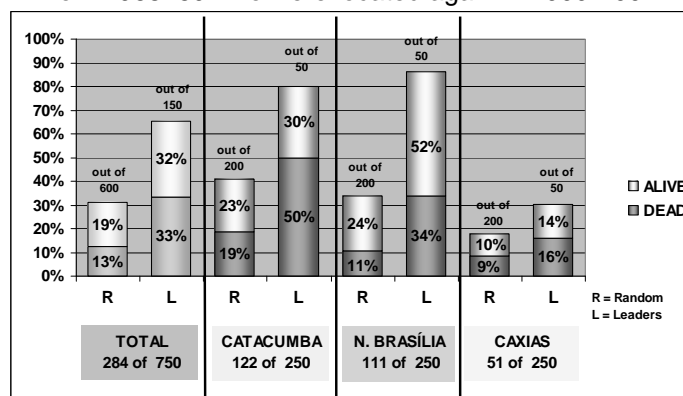
Note: Total figures and the differences among the three study communities. The 600-person random sample (R) and the 150-person leadership sample (L) are separated and each bar is divided between 'survivors' (living) who were interviewed in person and the closest living relative who could complete the life history and basic data for the deceased individual.

5.2 Verifying the identity of the relocated individuals

In the middle of our interviewing process, we discovered a daunting problem. As the data from the life histories and questionnaires were being checked for consistency before coding and digitizing 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 been included in the original sample; others indicated the birthplace of their parent(s) that did not match our data, and so on.

Approach

Once we realized that there had been some misidentification of respondents, we halted the coding and undertook a systematic review of 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 made in our procedures:

- We used the data from the life history matrices from 1969 to cross-check the validity of each of the people identified thus far; and

- We added several additional pieces of information about each original respondent to the packet of information we gave to the field team, so that they might have a higher rate of accuracy in their identifications.

What we learned

This revision cost us precious time and money, so we recommend that future researchers utilize a rigorous verification process from the beginning. Ultimately, we cross-checked the key information (using the age and gender of each child, and the date of marriage) for each person's questionnaire, returning to the interviewers and interviewees whenever we encountered inconsistencies.

5.3 Access to the communities and the problem of violence

Without doubt, the biggest change we found when we returned to the urban neighbourhoods was the presence and power of drug-related gangs – vying with one another for control of the *favelas* and engaged in armed battles with the police. This violence was the greatest challenge we faced, and the most difficult to overcome. Its negative effects included:

- The unwillingness of many of my researchers (even those from within the community) to participate in the study, and the dropout rate of others. For example, the traffickers noticed that one of our team members, a resident of the Quitungo housing project, was visiting several apartments everyday and began to suspect she was spying for the authorities. She was threatened and forced to resign from the project.

- Several families of the original interviewees had moved out of their communities, fearing they would be caught in the crossfire. Some had been in Nova Brasilia all of their lives, but fled to their families' or spouses' home towns; others had lived since the relocation in the housing projects for 30 years,

but had left to rent accommodations in outlying neighbourhoods, fearing that their children would become involved in drugs if they stayed.

- No one was able to enter the communities on the days when the gangs were in armed battle or the police had decided to conduct a raid. This caused many delays in our fieldwork.

- There was a high rate of refusal to answer questions about violence. The response rate of 'do not know/do not want to answer' to queries related to dealers, police, or violence was up to 40 per cent on some questions, compared with almost zero on most others. About ten families would not even provide us with the names or locations of their children, fearing they might be involved with traffic.

Approach

We understood that our study involved dangerous work, and we took the danger seriously. Very carefully, we attempted to negotiate access to the communities through the leaders of the residents' associations (most of whom were placed in leadership roles by the drug lords) and, for their protection, to provide visible identification to all team members. Each researcher was given a 'kit' that included a bright turquoise T-shirt with the Mega-Cities logo; a photo ID tag to wear around the neck identifying the study, his or her name, the office telephone number, and so on; and a letter signed by me explaining the study and confirming the interviewer by name as being part of the team. We called potential interviewees each morning to ask if it was safe to come see them and, when there was a doubt, we rescheduled the interview.

What we learned

Although we were careful, we understood that unexpected events might occur. For future studies, we recommend sending interviewers in pairs and keeping them in close touch with field supervisors at all times. The ubiquity of cell phones should make that much easier today.

I was nearly killed one sunny day while waiting for people to arrive for the participatory community history reconstruction in Nova Brasilia. The meeting was set for a Sunday at the residents' association and had been approved but, while waiting, I decided to take pictures of some of the same places I had photographed 30 years previously. I was soon 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 residents' association where the president was able to speak for me, they only took my film, not the camera. However, a group of them were waiting for me six hours later at the end of the day's meeting, and I was put in a taxi in considerable hurry.

5.4 Adapting the questionnaire

An effective questionnaire had been the cornerstone of our original study, and it was just as important when we went back. Our dilemma was deciding how much to update it. We scrutinized the content, language, and underlying theoretical constructs, and were concerned that some topics that had arisen in our recent open-ended interviews were

absent from the original questionnaire, notably violence. Other items that have figured prominently in recent literature, such as household composition and authority, had not been covered in great detail in our earlier study. Some of our phrases and words now sounded archaic and inappropriate. Our challenge was to revise the instrument so that it would provide an effective basis for comparison between then and now, and also between our study and other current studies in the field. These studies included Moser's longitudinal study of household responses to poverty (Moser 1996) and Birdsall and Graham's work on social mobility (Birdsall and Graham 2000).

Approach

After consideration, we eliminated the section on attitudinal modernity, and updated certain words and phrases so as to keep the questions clear and comprehensible. We 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 recommended by Birdsall and Graham. The result was a very long questionnaire that included 124 questions in addition to the life history matrix. It took over two hours to apply: unsurprisingly, we found that, although the original participants seemed content to go through it, the children often became impatient. We considered shortening the questionnaire for the next generation but decided against this lest it might impair comparability. The various sections of the questionnaire are presented in Box 3.

What we learned

We would not use such a long questionnaire again, though we gained valuable insights from each section. In my original study, I had done a second pre-test of the questionnaire after the results from the first one were incorporated: perhaps we should have done this again. During the course of our interviews, we realized that we had sacrificed exact comparability when we reworded the questions, so, for the random samples in Phase III, we went back to the original questionnaire, staying as faithful as possible to all of the items we retained.

Control

This section requested basic information on the education, occupation, contribution, and participation of the entire family group and of each household member.

Year-by-year life histories matrix

This section, based on the original methodology of Balan *et al.* (1969), tracked changes in residence, occupation, education, family status, and (from 1969 onwards) health, in order to understand life fluctuations and detect periods of upward and downward mobility in both absolute and relative terms.

Domestic economy

This section included questions about assets and income sources, the nature of the residence, and collective urban services and monthly expenditures of the household unit.

Social capital

This section included questions on friendship and kinship networks (nature, extent, and frequency), association membership, and participation in community activities.

Violence, police, drug traffic, and personal security

In this section, questions on the use of public space were added to the original questionnaire.

Perceptions on public policy

Questions on political perceptions and participation, public policy, citizenship, and contacts with various levels of government were featured in this section.

Social mobility

This section used the ladder technique from the 'Latinobarómetro', an annual public opinion poll conducted in Latin American countries (for example 'Latinobarómetro, Informe 2008'; for more information www.latinobarometro.org). We asked people to place themselves on a rung of a ladder from a low of one to a high of ten. In this way they were able to indicate their relative position vis-à-vis their aspirations and expectations (and those their parents had for them), and vis-à-vis their parents, children, siblings, community members, and other reference groups. We also asked perception questions about exclusion, stigma, and discrimination, and whether these have changed over time.

5.5 Creating a contextual questionnaire

We prepared a contextual questionnaire based on the one I had developed for the original study, and applied it to community elders and the original leaders. It proved problematic for the second study, as each of the respondents had a different perspective on the history of the community and remembered different events as being important. Coherence and reliability became challenges we could not overcome, even with the help of newspaper accounts from the time. It transpired that the *favelas* were rarely mentioned in the papers, except when one was 'removed'. Books and dissertations proved equally unhelpful.

Approach

We needed a collective memory in order to reconstitute the history of each community, and to cross-check dates and events. We did not want to impose what we considered the benchmark events in each place on people's personal stories but, rather to observe them from the residents' point of view. We decided to employ the DRP. So that the community members could work together to interpret their own reality and concerns, we brought each community together for a four-hour morning workshop and then lunch.

We created a timeline, demarcated across the top with time intervals from 1920 to 2001 and down the left-hand margin with key aspects of community life about which we wished to learn. We filled in key dates – such as the 1964 coup, the first study of 1968–69, the re-democratization of 1985 – and we ended with the year 2001, the year in which the interviews were taking place. We let the participants fill in all the other years and the events they considered relevant.

Participants were given sticky pads and invited to write on them what they considered the most important events in the life of their community and place them on the timeline. They ended up creating several crosscutting categories; for example, urban services, housing, drugs and violence, natural disasters, major political events, and so on. There was much discussion and argument about exact dates and names – and, suddenly, people began to overcome their shyness and began having fun with the task. We took notes, made videotapes, and ultimately used the brown paper scrolls and sticky notes to write the community histories.

What we learned

The people know best and, together, they know more!

5.6 Memory

One of the major difficulties in studies done over time, especially over such a long period, is the fallibility of memory and its selective nature, a problem deepened by the advanced age of most participants in our original sample. Memory is constantly being reconstructed – and we were asking people to remember in some detail the many residential, occupational, and educational changes they had experienced over 30 years. Our goal was nothing less than trying to capture the messy ups and downs of real life, and the way these challenged people had coped with crises – not for a handful of people

but for hundreds of them, across several generations. These data are difficult to collect, code, and analyse.

Approach

We discovered that the life history matrix worked well as an entry point into the interviews, encouraging the interviewer and interviewee to sit side by side and fill in the changes together, going back and forth in time and across categories. One item, such as the birth of a child, might help jog the memory on other items, such as the place of residence. Similarly, a move to a new place was often associated with a change of job or lack of work. It became an enjoyable collaborative exercise, using triangulation to help fill in memory lapses. Our real challenge was in how to interpret the data, how to control for normal changes in the lifecycle. Thus, the year of an event (including the all-important date of entry into the workforce) and the person's age were both considered in each interpretation of upward or downward mobility.

In addition, we were grappling with the fact that many changes make life neither better nor worse – they are simply trade-offs maximizing different things at different times. For example, leaving the *favela* for a peripheral neighbourhood cannot always be considered a step up. Consider the case in which someone has left the community – not by choice, but out of fear of violence – and has found himself or herself terribly lonely and isolated in a new setting. Similarly, a move from a salaried job to working for oneself cannot necessarily be considered a step down: the individual could be earning the same amount or more in the informal sector and has greater freedom and flexibility. These are some of the issues we needed to consider in interpreting our data.

What we learned

We found that the richer the data and the closer they were to the nuances of daily life, the harder it was to draw simple conclusions or find coherent patterns. In light of that fact, our qualitative data and personal narratives loomed greater in importance as we worked to interpret our results.

5.7 Bias

While it seemed an achievement to locate over one third of our original sample after three decades, there was still the risk that the two thirds *not* located would present an entirely different picture – either much better or much worse – and that we would therefore be unable to generalize our findings. To this considerable risk of bias, we added the possible distortion inherent in the fact that the people we found tended to be the youngest of the original group.

Approach

In an attempt to quantify our bias, we compared three groups using the 1969 data:

- Living original participants with whom we had completed questionnaires in both time periods;

- Deceased original interviewees for whom we had reconstructed life histories; and

- All those from the original study that we were unable to find.

Despite age and community biases, we found the three groups to be fairly homogeneous, and that gave us confidence that we had managed to find a relatively representative sample. Among the group we found, there was a slight tendency towards higher family income, greater access to services, more children, and better integration into their communities, but these differences were not significant. We were left wondering whether those who remained in the same communities – and, so, the easiest to find – were simply the failures who could not make it out, or the successes who did not end up on the streets.

We made an effort to answer this with in-depth interviews with all located original participants. I made trips to Joao Pessoa, Natal, Brasilia, Belo Horizonte, Sao Paulo, and Porto Alegre for the purpose, even if there were only one or two individuals in those places.

5.8 Multi-generational portraits and extremes of high and low outcomes

In order to achieve a sense of how the selection of random children within a family can affect our perceptions of the next generation, an additional method was to select one leader and one random person from each of the three communities, and to visit the homes and workplaces of each of their siblings, children, and grandchildren. For the social mobility chapter in Perlman (2010), I conducted in-depth interviews with the most and least successful individuals from the random and leadership samples.

6   Confidence in the results

I have a high degree of confidence in the findings presented in Perlman (2010), even though some of them contradict the prevailing wisdom. This would not be the case had I simply interviewed the survivors of the initial sample and their descendants. In that case, I would be greatly concerned about bias in the findings, since they would be based on the 40 per cent of people I was able to locate and I would have no knowledge on the 60 per cent I was unable to locate. What if, for example, I found only the poorest, who had remained in the *favelas*, while the more successful had moved up and out? On the other hand, what if I had found only the most successful, as they were the ones who had multiple contacts, were better known, had phone numbers, and were easier to locate? Had this been the case, the bias would only have multiplied with each generation, as I was sampling only the children and grandchildren of the people I found.

I have made several efforts to avoid these pitfalls. I have looked at the issues from various angles, and found the same results in every case. I have looked at how those people I did find changed or did not change, and at their responses to the same questions in 1969 and 2001. The responses measuring wellbeing, behaviours, beliefs, and perceptions at those two periods are very revealing, as are the issues they raised that were non-relevant in the earlier period. The *intra-generational* comparisons are like any panel study: they do not pretend to be representative of a larger universe of people (such

as all Yale students or all *favela* residents in Rio) but rather to determine what has happened to the specific group of people who were involved in the first phase of the study.

The same logic applies to the children and grandchildren of the original group of respondents in the 1969 study. The point here is not to have a representative group of all people of a similar age in the *favelas* of Rio but, rather, to look at the *intergenerational* relationships within the same families. This addresses issues that would otherwise be impossible to observe; for example, the degree to which the relative socioeconomic position of the parents within the *favelas* determines that of their children (the intergenerational transmission of poverty) or the manner of thinking and acting (such as degree of fatalism or civic engagement). Again, this type of comparison is not dependent on the randomness of the sample. The real question here is separating the effects of chronology or historic moment from age cohort and lifecycle factors. The year-by-year life histories helped to untangle these factors, and the entire analysis was done by age cohorts across all generations, by generation regardless of age, and by both according to chronological period.

However, none of this solves the problem of knowing whether the trends I found were specific to this particular group – of which only one third were still living in *favelas* – or whether some of the same patterns were at play for the current residents of the *favela* communities in the original study. An additional two years were added to the research to enable us to compare the composition profile of the places in 1969 and 2003. This was the reason for drawing new random and leadership samples in each community in the same manner as had been used in 1968, and applying an updated version of the same questionnaire to this new group of 1,275 people. The members of this new sample might not have lived there during the first study or might not have been born during the 18 years after that study ended. To be consistent with the original study, the random sample was composed of men and women aged 16–65 years.

The major findings and trends of this second phase of the study verified the inter- and intra-generational phase. The results were almost identical with each of these two approaches. To see whether the gap between the *favela* populations in these older, consolidated *favelas* and the municipality at large had widened or narrowed, we were able to compare their scores on an index of socioeconomic status (SES) with the scores from the closest census year in each case. That meant comparing the SES of our 1969 *favela* sample with the 1970 Rio census, and the 2003 re-study data with the 2000 census. We found that the *favela* SES scores had improved relative to the city average on all three components of SES: consumption (measured by household appliances), education (measured by the number of years in school) and crowding (measured by the number of people per room). Yet there was greater unemployment because the entry level requirements for jobs had risen faster than the educational achievements of the *favela* residents and the stigma of living in a *favela* had been compounded by the association with drug traffic, making it even more difficult to get a job.

The most devastating change in the interval between my first study and the follow-up was the rise of drug trafficking that started in 1985, coinciding with the end of the dictatorship. The close surveillance of the Columbian borders re-directed much of the cocaine traffic through Brazil and Rio's *favelas* were ideal for hiding the re-packaging for export to Europe and the United States, and for conducting sales to the 'playboys' from the wealthy neighbourhoods. The fear of displacement from the *favela* was

replaced by the fear of dying in the crossfire. About one in five people in each generation had lost a family member to homicide. People felt trapped between the police violence and the drug violence.

Since many of the findings contradict prevailing wisdom about squatter settlements and trends, I also interviewed key academics, activists, public policymakers and community leaders, and made multiple presentations of my findings to local, national and international professionals in the field. The questions and feedback from these interviews and seminars were very valuable in deepening my analysis, and complementing the secondary data used to place the field research in broader context.

Limitations of space preclude further discussion of the research results here. For the interested reader, the full analysis of the survey and life history data and the ethnographic evidence, can be found in my forthcoming book (Perlman 2010) and in several papers available on the Mega-Cities Project website at www.mega-cities.net. The data we have are sufficient for several other books and articles. I encourage interested readers to use this and to conduct comparative studies so that we can build a greater understanding of the dynamics of urban poverty in today's globalized context.

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