Title:
PROGRESSION AND TRANSITION TO SECONDARY EDUCATION: HOW BIG ARE THE DISPARITIES WITHIN AND BETWEEN SLUM AND NON-SLUM COMMUNITIES?

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Abstract
Inequities in transition to secondary schooling are a major source of subsequent disadvantage in employment, health and life chances. The slum population posses an even greater challenge, especially in Africa; in part due to increasing urbanization and slum conditions, which exacerbate subsequent inequities.

But how wide are these inequities? We use six-year retrospective data (2005-2000) from slum and non-slum areas of Nairobi to construct cohorts at primary school level, 1, 4, 7 and 8 in year 2000 and follow them to 2005. Results show wide differences in secondary school transition between non-slum and slum children. For primary 1 cohort, 99 percent non-slum and 97 percent slum children are in school after follow-up. In contrast however, in primary 7 cohort, its 86 percent in non-slum and 28 percent in slum. This will likely disadvantage slum children to achieve universal primary school access and completion, gender equity, and decent work for youth.

Introduction

Despite the obvious gains made in enrollments over the past decade, approximately 115 million children are out of school, and even more do not have access to secondary school. Research has demonstrated that most of the demographic, health and economic benefits accrue with secondary level education and some of the Millennium Development Goals require at least some secondary education. For example, demand for primary education is determined in part by the availability of secondary education slots as parents may intuitively understand that the economic benefits of primary schooling alone are not high enough to offset the opportunity cost of attending (Birdsall, Levine and Ibrahim, 2005). Other MDG targets may be affected as well, notably gender equity (Target 3), improvement in lives slum dwellers (Target 11), implementing strategies for decent and productive work for youth (target 16), and in cooperation with the private sector, make available the benefits of new

technologies – especially information and communication technologies (Lewin, 2005).

Inequities in transition to secondary education are a major source of subsequent inequities in employment, fertility, health outcomes and life chances among young people. Those who are unable to access secondary education will find it difficult to get into the labor market and will most likely have poorer health outcomes compared to their counterparts that will transit. This will become a reality especially with universal primary education and with many scholars and policy makers increasing questioning the long held view of the benefits of primary education (King, 2005). In fact many parents today continue to see primary school as a stepping stone to secondary schooling or further skills development.

The slum population posses an even greater challenge especially in Africa; in part due to increasing urbanization with more than half of urban residents living in slums but also slum conditions of poor access to the labor market and public services worsen subsequent inequities. Emperical evidence suggests that the proportion of the urban poor will increase faster than the urban population growth, proviking a substantial increase in the slum incidence. It is estimated that by the year 2020 the current 30 percent level of urban poverty could reach 45-50 percent of the total population living in cities, that is, 381 to 455 million households, as compared to 128 million households in 2000.

But how wide are these inequities? In this paper, we use data collected from slum and non-slum areas of Nairobi to construct cohorts at different levels of primary school and follow them until they transit to secondary school. Data was collected retrospectively for six years in 2005, that is, 2000 to 2005.

What have we found? We find that, of a cohort of primary 4 pupils in 2-2000, 92 percent in non-slum compared to only 54 percent in slum areas were able to transit to the first year of secondary school. In a cohort of primary 7 pupils in 2000, 86 percent were still in school in non-slum compared to only 28 percent in slum areas five years later – a 58 percent difference. However, the difference was not significant for a cohort of primary 1 children as 99 percent were still in school in non-slum compared to 97 percent in slums five years later. This has implication for different millennium targets as far as current and future generation of slums is concerned.

Methodology

Area of study

This is a prospective population based study in two slum (Korogocho and Viwandani) and two non-slum (Harambee and Jericho) settlements in Nairobi.

Design

The study is longitudinal and follows up children aged 5-19 years in the defined geographical areas in slum and non-slum communities. Information was collected on a range of issues in modular form. Five questionnaires, each addressing a specific theme were used in the process of data collection. The first modular questionnaire upon which the current analysis is based collected information on each child's schooling history. This information was collected retrospectively from 2005 to 2000 for all children regardless of whether they were in or out of school. For children aged 5, 6, 7, 8, and 9 years in 2005 only information for one (2005), two (2005 and 2004), three (2005 to 2003), four (2005 to 2002) and five (2005 to 2001) years was collected starting in 2005 respectively. For children aged 10 to 19 years, information for six years (2005-2000) was collected retrospectively.

To allow sharing of the work being conducted within the four sites in a continuous manner, versions of the data are released for analysis at regular interviews. In subsequent rounds of data collected, new children will migrate into the areas and more children will become of age (5 years). Children that exceed age 19 will be followed up continuously for the duration of the study. Table 2 describes the four study sites. It also provides the number of children 5-19 years.

Table 2 Number of children being followed up in the four study sites

Site name	Site description	Administrative location	Children 5-19 years
Korogocho	Slum	Korogocho	7,698
Viwandani	Slum	Viwandani	3,892
Jericho	Non-slum	Makadara	1,564
Harambe	Non-slum	Makadara	728
Total			13,126

The questionnaire had two main sections, school participation for current year (2005), and school participation for previous years (2004-2000). The section on school participation for 2005 collected information on schooling status of the child, the name of the school the child is

attending, grade, location of the school and whether the child has changed or dropped out of school in the current year. It also probed on the reasons for changing schools and dropping out of school where applicable. The section on school participation for previous years (2004-2000) collected similar information. Information collected through other modules is reported elsewhere (APHRC, 2006). Each of these modules is updated regularly at varying intervals. School enrollment is updated every term while the rest of the information is updated annually. In addition, for those children who drop out, case histories are collected through indepth interviews to have a deeper understanding of the circumstances and the process of dropping out of school.

Analytical approach

The examine primary school progression and transition into secondary education, we used a cohort approach. Four cohorts of children were constructed all in year 2000: in primary one, primary four, primary seven and primary eight. The first cohort demonstrates progression within primary school, the rest of the cohorts are used show the pattern of transition into post primary education. For each of these cohorts, the percent of children remaining in school in subsequent years was computed.

Results

Primary school progression for slum and non-slum

Primary school progression among children from slum and non-slum communities of Nairobi does not seem to be a major problem. In figures 1-5, primary school progression is shown mainly in panels (a) and (b) using primary one and primary four cohorts respectively. For example, in panel (a) of figure 1, out of every 100 children in primary one in the year 2000, 99 of them were in school five years later for non-slum communities. In slum communities, out of every 100 children in primary one in the year 2000, 97 of them were in school five years later. This cohort of children is expected to have completed five years of school and in primary six.

In panel (b) of figure 1, out of every 100 children in primary four in the year 2000, 92 of them were in school five years later for non-slum communities. In slum communities, out of every 100 children in primary four in the year 2000, 54 of them were in school five years later – almost half of those in non-slum communities. This cohort of children is expected to have completed eight years of school and in the first year of post primary school. From the same panel, 98 percent and 91 percent of this cohort in non-slum and slum communities respectively are expected to have completed primary eight.

Primary school progression for income groups
In panel (a) of figure 2, out of every 100 children in primary one in the year 2000, 99 of them were in school five years later for households in the richest 20 percent for slum and non-slum communities. The poorest 20 percent of households, out of every 100 children in primary one in the year 2000, 99 of them were in school five years later. This cohort of children is expected to have completed five years of school and in primary six.

In panel (b) of figure 2, out of every 100 children in primary four in the year 2000, 91 of them were in school five years later for the richest 20 percent of households. For the poorest 20 percent households, out of every 100 children in primary four in the year 2000, 42 of them were in school five years later. This cohort of children is expected to have completed eight years of school and in the first year of post primary school. From the same panel, 99 percent and 87 percent of this cohort in the richest and poorest 20 percent of households respectively are expected to have completed primary eight.

The pattern for the children from the poorest and richest households in slum (see figure 4) and in non-slum (see figure 5) communities is similar to those observed in figure 2.

Primary school progression for boys and girls
In panel (a) of figure 3, out of every 100 non-slum boys in primary one in the year 2000, 99 of them were in school five years later. For the non-slum girls, out of every 100 in primary one in the year 2000, 100 of them were in school five years later. The pattern is similar to that of slum girls (97 percent) and boys (97 percent).

In panel (b) of figure 3, out of every 100 non-slum boys in primary four in the year 2000, 97 of them were in school five years later. For non-slum girls, out of every 100 children in primary four in the year 2000, 88 of them were in school five years later. This cohort of children is expected to have completed eight years of school and in the first year of post primary school. From the same panel, 56 percent and 52 percent of this cohort of slum boys and girls respectively are in school.

In contrast to the primary one cohort where boys and girls remained in school for subsequent fives years at almost the same level, for primary four cohort, more boys than girls were able to remain in school. The difference was more pronounced in non-slum (about 9 percent) compared to slum (about 4 percent) communities. [WILL FOLLOW THIS IN THE TRANSITION FOR PANEL (c) WE CAN ALSO DISCUSS SOME BIT OF

GENDER DIMENSION IN THIS RESPECT. BUT I DON'T REALLY KNOW THE EXPLANATION]

Transition to post primary education for slum and non-slum
The disparities in transition to post primary education among children in slum and non-slum communities of Nairobi are quite wide. In figures 1-5, transition to post primary education is shown mainly in panels (c) and (d) using primary seven and primary eight cohorts respectively. For example, in panel (c) of figure 1, out of every 100 children in primary seven in the year 2000, 85 of them were in school five years later for non-slum communities. In slum communities, out of every 100 children in primary seven in the year 2000, only 28 of them were in school five years later. This cohort of children is expected to be in year four of secondary school – the last year at this level. From the same panel (c), out of 100 children in primary seven in 2000, 90 and 39 of them in non-slum and slum communities respectively had a successful transition into secondary school.

In panel (d) of figure 1, out of every 100 children in primary eight in the year 2000, 27 and 4 from non-slum and slum communities respectively were in school five years later. This cohort of children is expected to be in their first year of post secondary education.

Transition to post primary education for income groups
In panel (c) of figure 2, out of every 100 children in primary seven in the year 2000, 83 of them were in school five years later for households in the richest 20 percent for slum and non-slum communities. In the poorest 20 percent of households, out of every 100 children in primary seven in the year 2000, 20 of them were in school five years later. This cohort of children is expected to be in year four of secondary school – the last year at this level.

In panel (d) of figure 2, out of every 100 children in primary eight in the year 2000, 26 of them were in school five years later for the richest 20 percent of households. For the poorest 20 percent households, out of every 100 children in primary eight in the year 2000, 6 of them were in school five years later. This cohort of children is expected to be in their first year of post secondary education. From the same panel, 85 percent and 16 percent of this cohort in the richest and poorest 20 percent of households respectively are expected to have reached four years of secondary education – the last year at secondary school level.

Figure 4 presents the cohort of children according to wealth quintiles generated for slum communities. Similarly figure 5 shows cohorts of children according to wealth quintiles generated for non-slum

communities. Note that in figures 2, the wealth quintiles were generated combining both slum and non slum communities. To put this in a different way, figure 4 compares the rich and the poor in slum communities. In panel (c), 46 percent and 20 percent of a cohort of primary seven children in the richest and poorest 20 percent households in slum communities were able to continue in school up to the fourth year of secondary school. Contrast this to 94 percent and 83 percent of the same cohort in non-slum communities for the richest and poorest 20 percent households (see figure 5). The gap between the rich and poor in the slum communities is wider than that in non-slum communities. In addition, the disparities observed in panel (c) of table 2 are as a result of the differences in children coming from slum households rather than rich or poor.

In panel (d) of figure 4 and figure 5, the wide disparity within slum communities (figure 4) as opposed to a narrow disparity (figure 5) in non-slum communities is observed. In the slum communities, out of 100 children in primary eight in 2000, only 16 percent among children from the poorest 20 percent households as compared to 57 percent among children in the richest 20 percent households were able to rich four years of secondary education. This is in contrast to 88 percent and 74 percent among children from richest and poorest 20 percent of households in non-slum communities.

Completion of secondary school seems to terminal for children in slum communities. Irrespective of wealth quintile, the percent of children in post-secondary education is less than 10 percent. For children from the richest 20 percent of households, 6 percent of the primary-eight-cohort is able to reach the first year of post-secondary education. None of the children in the fourth quintile is able to reach this level of education. In contrast however, 48 percent and 17 percent of this cohort from the richest and poorest households respectively are able to reach the first year of post-secondary education. [IT WOULD PROBALY BE GOOD TO JUST CHECK WHAT KIND OF TRAINING THESE PEOPLE ARE GETTING AT THESE LEVELS]

Transition to post primary education for boys and girls
In Panels (c) and (d) of figure 3, we compared a cohort of male and female children in primary seven and primary eight respectively for slum and non-slum communities. In panel (c) the disparity between boys and girls is more pronounced in the non-slum communities than in slum communities. For a primary-seven-cohort of male children in non-slum communities 92 percent are able to reach the fourth year of secondary education compared to 78 percent for a primary-seven-cohort of females. In contrast, 30 percent of the male cohort and 26 percent of the female

cohort in the slums are able to make it to the fourth year of secondary education.

In panel (d) of figure 3, there is no disparity between a cohort of primary-eight males and primary-eight females in the slum and non-slum communities who reach the first year of post-secondary education. In the non-slum communities, 28 percent and 4 percent of this cohort reach the first year of post-secondary education. This probably indicates that being in the slums affects both boys and girls equally and progressing to post-secondary education is clustered in a few households and does not necessarily discriminate. [IT WOULD BE FUN TO LOOK AT THE DIFFERENT DESCRIPTIONS OF FAMILIES WHRE WE HAVE THE 4 PERCENT OF CHILDREN AND 28 PERCENT OF CHILDREN. THIS MAY PROVIDE FURTHER INSIGHTS INTO FAMILIES THAT ARE ABLE TO TAKE THEIR CHILDREN FURTHER THAN POST-SECONDARY EDUCATION]

Discussion [4 pages]

[ON ASSUMPTION OF LIMITED REPETITIONS, THAT IS HOW WE ARE ABLE TO SAY THAT CHILDREN REACH FORM FOUR. WE CAN CHECK THIS ASSUMPTION]

[WHERE POVERTY IS, BOTH BOYS AND GIRLS ARE AFFECTED EQUALLY. AS IN THE CASE OF SLUMS]

Since transition is the real problem, is it because the children and parents feel that that is sufficient or is it that they don't have money to continue? How come they are able to sacrifice and get money for primary school and not secondary school?

Figure 1: Percent of 2000 Cohort children still in school,
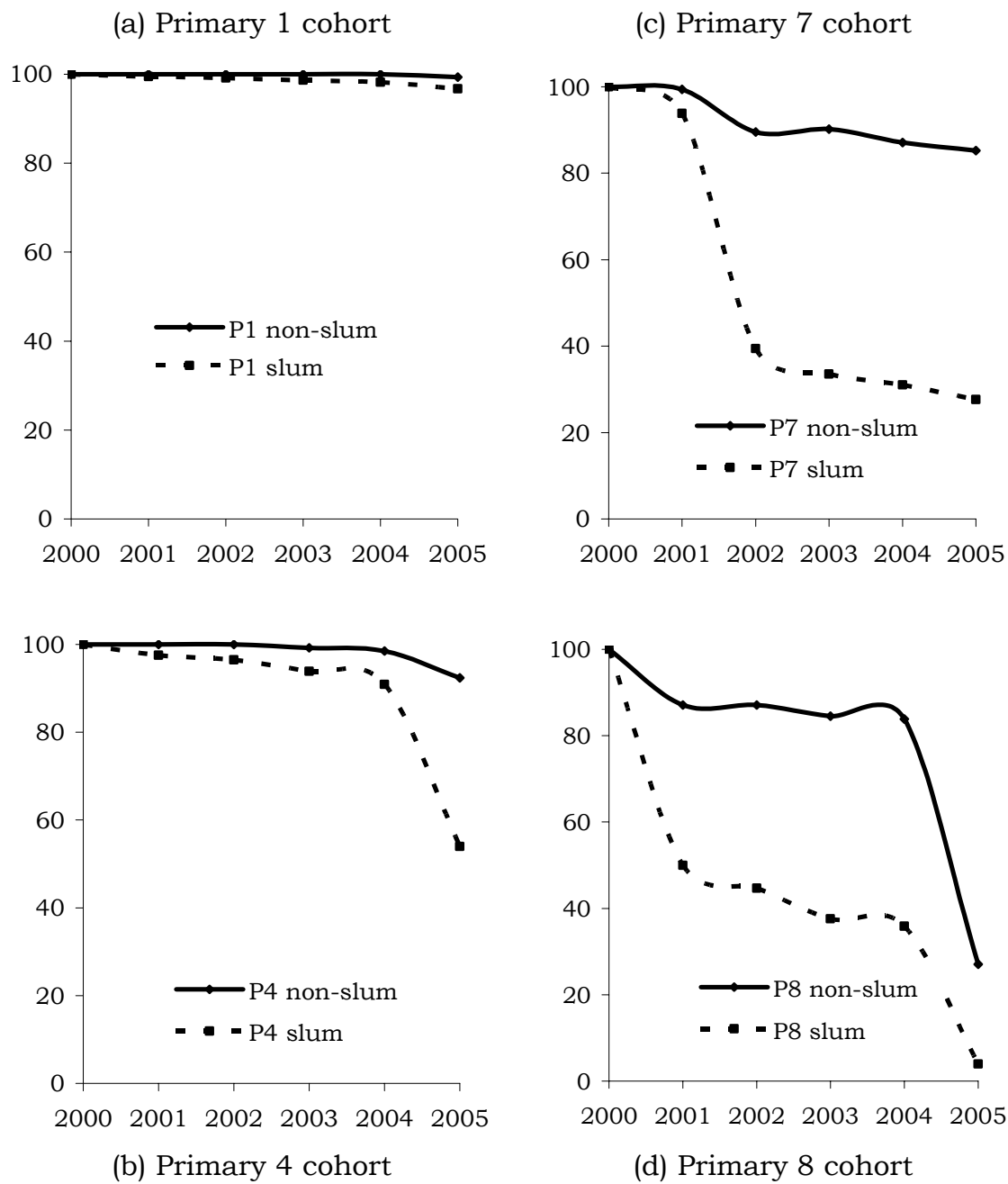slum or non-slum

(a) Primary 1 cohort

P1 non-slum
P1 slum

(c) Primary 7 cohort

P7 non-slum
P7 slum

(b) Primary 4 cohort

P4 non-slum
P4 slum

(d) Primary 8 cohort

P8 non-slum
P8 slum

9

Figure 2: Percent of 2000 Cohort children still in school,
wealth quintiles

(a) Primary 1 cohort
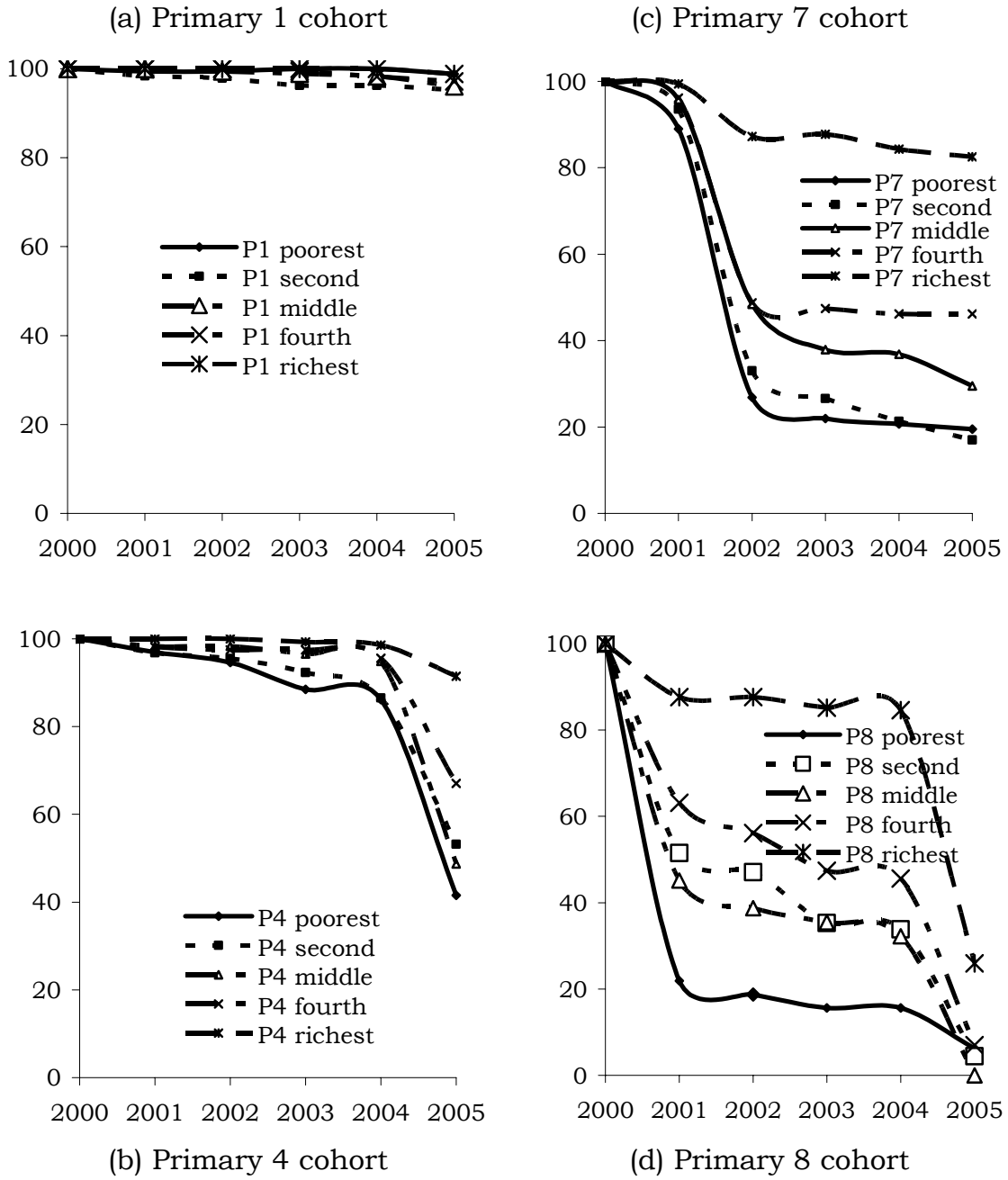
(c) Primary 7 cohort

(b) Primary 4 cohort

(d) Primary 8 cohort

Figure 3: Percent of 2000 Cohort children still in school,
gender and area of residence (slum or non-slum)

(a) Primary 1 cohort

P1 slum female
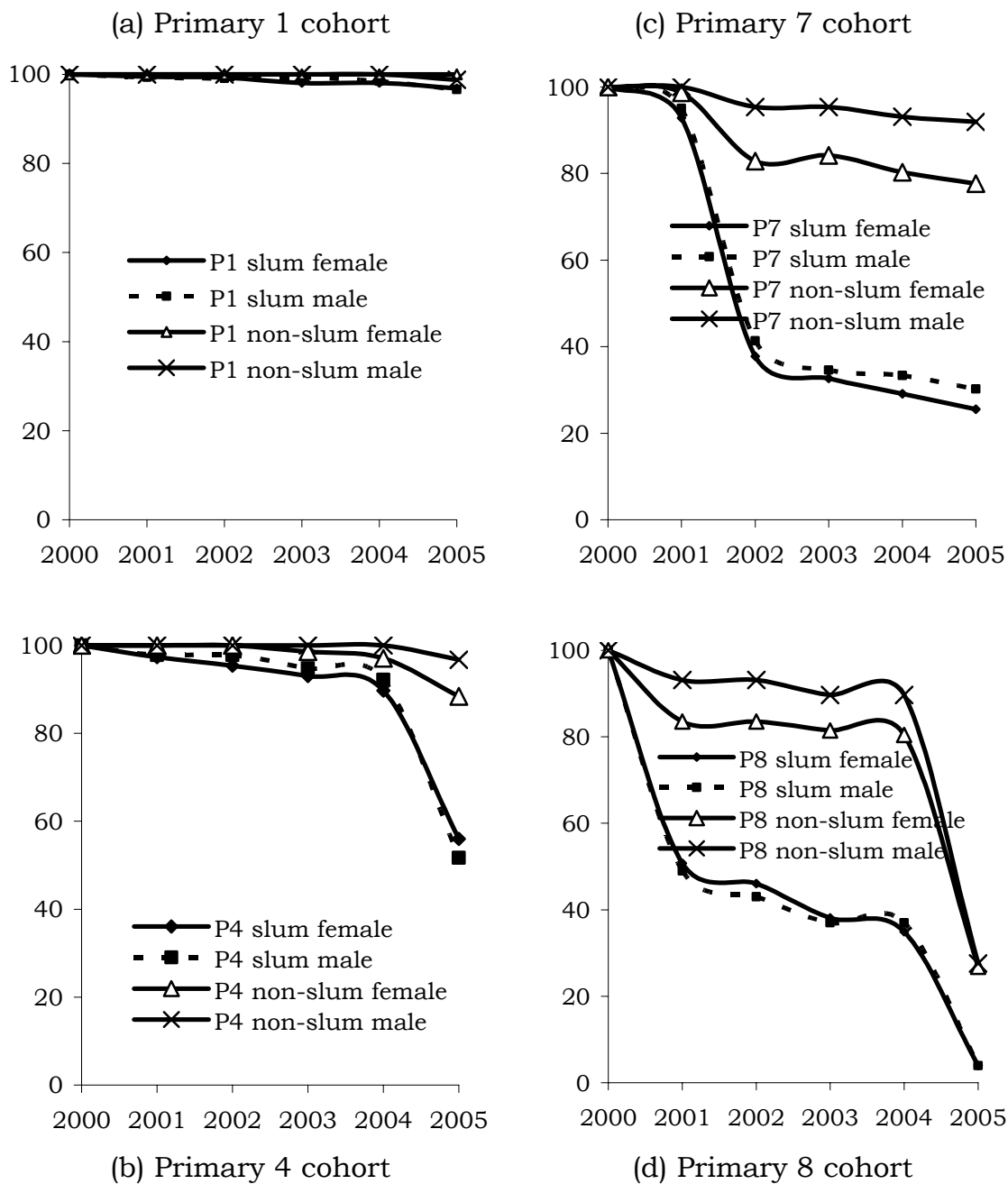P1 slum male
P1 non-slum female
P1 non-slum male

(c) Primary 7 cohort

P7 slum female
P7 slum male
P7 non-slum female
P7 non-slum male

(b) Primary 4 cohort

P4 slum female
P4 slum male
P4 non-slum female
P4 non-slum male

(d) Primary 8 cohort

P8 slum female
P8 slum male
P8 non-slum female
P8 non-slum male

Figure 4: Percent of 2000 Cohort children still in school, wealth quintiles in slum communities

(a) Primary 1 cohort

(c) Primary 7 cohort

(b) Primary 4 cohort

(d) Primary 8 cohort
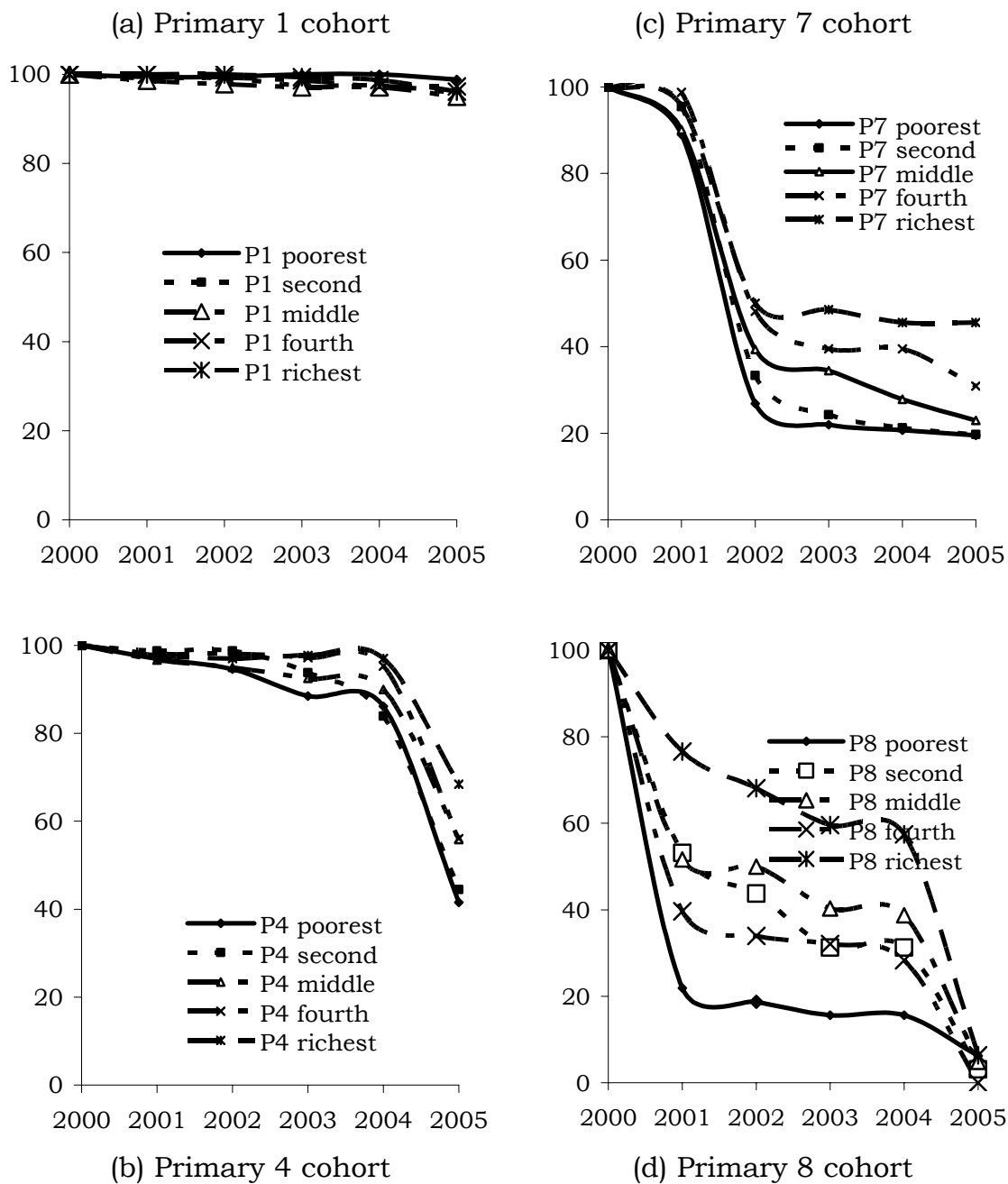
Figure 5: Percent of 2000 Cohort children still in school,
wealth quintiles in non-slum communities

(a) Primary 1 cohort

(c) Primary 7 cohort

(b) Primary 4 cohort

(d) Primary 8 cohort
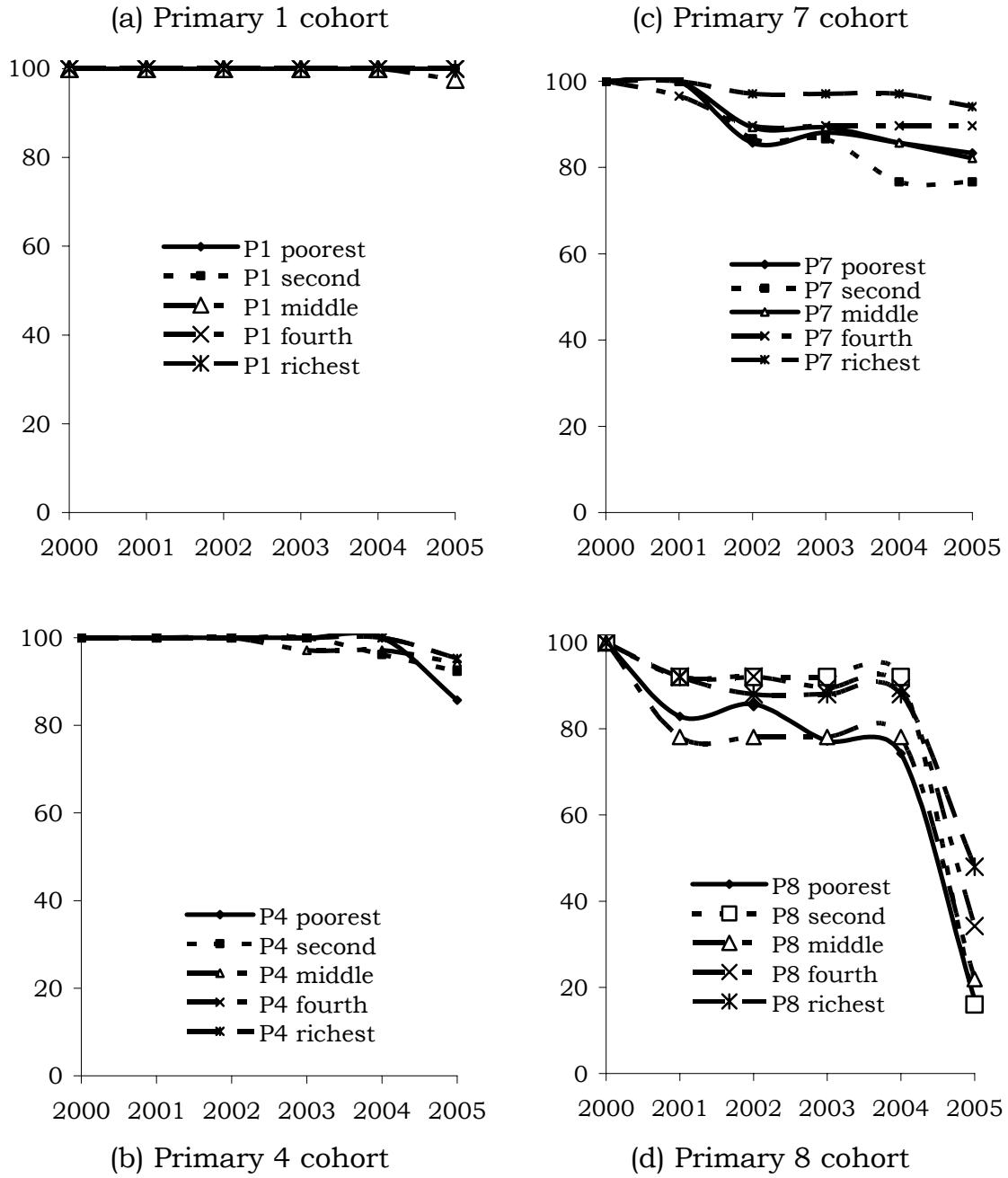
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