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Poverty and non-payment of services: The challenges for development policy

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Poverty and non-payment of services:
The challenges for development policy

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ABSTRACT

Inequality and poverty are more pronounced amongst non-paying households than amongst households that pay their municipal accounts in full each month. This is the case regardless of whether poverty is measured in terms of expenditure or income and regardless of what poverty line or poverty measure is used. Non-paying households can be described as households that carry a greater proportion of the unemployment burden, that have no or more limited access to savings, that face considerably larger debt burdens, that own relatively few assets, and that have limited access to financial services. Hence, it can be argued that poverty in many instances is a main cause of non-payment of services. To address this situation, municipalities will have to make considerable efforts in stimulating job creation through appropriate local economic development initiatives. There also exists substantial scope for using small business promotion, which can be launched through appropriate local public-private partnerships, for this purpose. Indigent policies will also play a crucial role in affording the poorest of the poor access to basic services, in the process partly alleviating the problem of non-payment of services. Rural households shoulder as much as two thirds of the poverty burden, which means that these policies will be particularly important in rural areas. The greatest need for such support lies amongst the non-paying rural households. As a result, it is important that municipalities take great care and are is assisted in implementing and administering these policies effectively, particularly insofar as capacity building is concerned. The same can be said for enhancing the capacity of municipalities to embark on and facilitate local economic development in a manner that will contribute to poverty alleviation. Government also needs to continuously assess the situation with regard to intergovernmental transfers in order to ensure that the grant transferred to municipalities for financing indigent policies is sufficient to meet the need for such assistance. Monitoring is also necessary for ensuring that the manner in which indigent policies is managed by municipalities does not endanger fiscal sustainability and meets the objective of the grant. This is crucial if indigent policy is to be used as a tool with which to address the poverty-related problems of non-payment of services effectively. It is felt that more work is required to develop the necessary structures and systems required for effectively managing indigent policies at the municipal level.

1. Introduction

This paper attempts to answer three specific questions regarding the relationship between non-payment of services and poverty in African communities. For the purpose of this discussion, a distinction is made between paying and non-paying households. Paying households refer to households that settle their accounts in full each month. Non-paying households refer to households that have indicated that they are paying their accounts partially, occasionally, or never. Households that have indicated that they do not receive a municipal account were excluded from the analysis, because these households cannot reasonably be expected to pay for services for which they are not billed.

The three poverty-related aspects of non-payment of services to be discussed here are the following. Firstly, we need to determine whether households that do not pay their accounts in full each month are poorer than households that do settle their monthly account in full. The central question here is whether non-payment of services is a problem of ability-to-pay rather than willingness-to-pay. If non-paying households are poorer than paying ones, one in the second instance needs to compare the poor and non-poor households so as to determine the characteristics of the poor and to identify the possible determinants of poverty. The third objective is to identify by means of this poverty profile, those development policies and initiatives that may be important in improving the standard of living of poor, non-paying households and thus in improving payment rates in the medium and longer term. The Constitution of our country places particular emphasis of this role of local government in promoting social and economic development (Republic of South Africa, 1996: 81).

2. Poverty comparison for non-paying and paying households

Although a specific individual within each household is responsible for paying the municipal account, households rather than specific household members are billed for their joint consumption of municipal services. Hence, poverty is measured at the household rather than at the individual level. These accounts, furthermore, are payable in legal tender, which means that the ability of households to pay their municipal accounts depend directly on the amount of monetary resources available to

them. As a result, poverty is here interpreted in terms of the command over commodities that resources afford people via income and consumption (Lipton and Ravallion, 1995: 2553-2567). The concern, therefore, is with 'poverty proper' (i.e. resource adequacy), not with the physical, social or political dimensions of poverty (Kgarimetsa, 1992: 8; Woolard and Leibbrandt, 1999: 3).

Generally, a single monetary indicator, such as income or consumption, is employed in assessing the extent of poverty and inequality (Ravallion, 1996: 1328-1334). Income is argued to reflect consumption opportunities and is therefore a popular measure of poverty (Hagenaars, 1991: 135-146). During the baseline survey, data were collected from each household regarding the employment income (i.e. wages and salaries), non-employment income (e.g. rental income, pensions, grants, workmen's compensation and unemployment insurance), and monetary and in-kind remittances accruing to the particular household and its individuals members. An estimate of total monthly household income was derived from these figures by adding up the various component items. Consumption represents an alternative resource base for measuring poverty and inequality (Lipton, 1997: 1003). During the household survey, fieldworkers collected expenditure-related data from those household members in charge of household finances. These include estimates of household expenditure on specific items such as food, education, health care, transport, and clothing, remittances paid to persons not living with the household, as well as monthly repayments of debt. As in the case of income, an estimate of total monthly household expenditure was calculated by adding up these items.

There are, however, various reasons why income represents an inadequate measure of poverty. Although household income is generally assumed to be spent to benefit the whole family, this may not necessarily be the case (Woolley and Marshall, 1994: 422-429). Furthermore, levels of income and consumption often differ as a result of saving/dissaving, i.e. so-called consumption smoothing. Moreover, for various reasons consumption represents a better proxy of current living standards and long-term average well-being than income. Consumption bridges the observed disparity between income and expenditure levels. Expenditure also reveals information about both past and future incomes, because it includes consumption financed from saving or dissaving (Lipton and Ravallion, 1995: 2573). In order, though, to confirm the

consistency and robustness of these poverty comparisons, both income and expenditure are employed as proxies of standard of living in the subsequent analysis (page 8).

Households with the same level of income or consumption do not necessarily enjoy the same level of well-being. The larger the household, the lower the level of well-being at similar levels of household income or expenditure. Measures of equivalent income or expenditure are employed to allow for these differences in well-being related to household characteristics (Lipton and Ravallion, 1995: 2574; Burkhauser *et al*., 1997: 154-161). Estimates of household income and expenditure are adjusted for differences in household size by dividing total monthly income and expenditure by n^{α}, where n presents the number of household members and α an adjustment for household economies of scale (Filmer and Pritchett, 1998: 13). According to Lanjouw and Ravallion (1995) and Drèze and Srinivasan (1997), a α coefficient of 0.6 represents an adequately robust and reliable adjustment for household economies of scale.

Table A: Average per capita income and expenditure of non-paying and paying households (Rand)

Clusters of households	Equivalent per capita expenditure (n)	Equivalent per capita income (n)
1. Non-paying urban households	581.11 (324)	743.04 (324)
2. Paying urban households[1]	703.18 (439)	990.28 (440)
3. Non-paying rural households	310.85 (343)	376.32 (343)
4. Paying rural households	396.77 (378)	581.59 (378)
5. All households	507.80 (1484)	690.50 (1485)

Note: Paying households refer to households that receive an account and that settle this account in full each month. Non-paying households refer to households that receive an account and that have indicated that they pay this account partially, occasionally, or never.

The average equivalent per capita income and expenditure of non-paying and paying households residing in urban and rural transitional local councils (TLCs) are reported in Table A. The number of households across which these averages were calculated is indicated in parentheses.[2] Evident from Table A is that non-paying households on

[1] The reason that the two samples differ with one is that one household in the cluster of urban households that received an accounts and that paid this account in full chose not to report any details about their household expenditure. This one household presents less than 0.1 per cent of the entire sample of households. Its inclusion, therefore, in the sample is unlikely to add bias to the comparisons presented in these pages.

[2] For a more detailed discussion of the survey methodology used in collecting the data consult the report on the baseline survey.

average have access to less resources than paying households, both in terms of expenditure and income. This presents an early indication that the problem of non-payment of services may be related to problems of ability-to-pay rather than willingness-to-pay. However, poverty comparisons entail more than simply comparing average income and expenditure across households.

To estimate poverty one requires a poverty line, i.e. a level of expenditure or income below which people are considered poor. Poverty lines provide a yardstick with which to compare the circumstances of individual households or persons. Aggregate measures of poverty cannot be estimated without a poverty line. Arbitrariness is practically unavoidable in setting poverty lines, primarily because of the multitude of methods that are employed for this purpose (Kgarimetsa, 1992: 9; Alcock, 1993: 60-62; Johnson, 1996: 110-112). The standard practice has therefore become one of testing the robustness of poverty lines by simultaneously employing more than one such estimate in poverty analysis. Ravallion (1994b: 43) refers to this as the use of dual poverty lines. Results are compared across estimates based on different methodologies and/or alternative assumptions made using similar methods (Lipton and Ravallion, 1995: 2577; Lipton, 1997: 1003). A similar approach is followed here. The range of poverty lines used for this purpose is reported in Table B. A number of poverty lines employed in analysis of poverty in South African are employed, as well as the US$1 per capita per day poverty line employed by the World Bank in international poverty comparisons. In addition, a poverty line was estimated from the household data collected for the purpose of this study using the so-called 'subjective' approach to poverty line estimation. In these methods, people evaluate their own economic status by answering questions as to what level of income or consumption they consider adequate or desirable (Danziger *et al*., 1984). Answers to such questions are of course crucially dependent on respondents' personal circumstances and characteristics, reference or peer group effects, and previous levels of income and/or consumption (Colasanto *et al*., 1984: 127-137; Pradhan and Ravallion, 1998: 6). During the survey, households were asked 'What monthly income do you consider to be absolutely minimal to sustain your household?' Based on these estimates, and using the estimates of total household income, the subjective poverty line was set at that level of income where subjective minimum income equals actual income (Ravallion, 1994b: 43; Pradhan and Ravallion, 1998: 4).

Table B: A range of per capita poverty lines for South Africa

Description	Rand (per capita equivalents)
1. International poverty line of US$1 per capita per day [3]	228.00
2. Medium level of living (MLL) [4]	267.66
3. Municipal grant/indigent policy standard (R800 per household per month)	304.58
4. Supplemental level of living (SLL) [4]	358.79
5. Subjective poverty line (SPL)	522.65

Source: Adapted from Klasen (1997: 56) and Woolard and Leibbrandt (1999: 14)

Where necessary, these poverty lines were adjusted for inflation using the consumer price index (CPI) for August 2000, the month during which the fieldwork was conducted. However, the R800 per month poverty line was not adjusted for inflation. This particular poverty line is used in reports dealing with the implementation of indigent policies. The use of the suggested poverty line enables one to measure poverty relative to the criteria suggested for qualifying for support. Because household expenditure and income are reported in equivalent per capita terms (page 4), the R800 per month poverty line, which is expressed in terms of unadjusted household income (Statistics South Africa, 2000: 10), was adjusted for differences in household size. This correction was performed by dividing the particular poverty line by the average household size (five) raised to the power of 0.6, the coefficient allowing for household economies of scale (page 4). The other poverty lines are all expressed in equivalent per capita terms, or, like in the case of the subjective poverty line, were estimated from the adjusted figures and thus require no adjustment. This range of poverty lines does not present an exhaustive list of poverty lines estimated for South Africa. However, these estimates do include the highest and lowest estimates reported in the literature, thus giving a good indication of the considerable range of these estimates.

Armed with the required adjusted estimates of income or consumption and the poverty line estimate, one can aggregate this information into descriptive measures of

[3] This poverty line was converted into Rand by assuming a Rand/US$ exchange rate of R7.60, a rate approximate to the one prevailing during the time the fieldwork was conducted.

[4] The Bureau of Market Research of the University of South Africa estimated these two poverty lines. The poverty lines are based on a family of five and converted into adult equivalence scales (Klasen, 1997: 56; Woolard and Leibbrandt, 2000: 14).

poverty and inequality (Grootaert, 1983: 3-10). The following specific measures of poverty and inequality are employed in this analysis.[5]

- The *Gini coefficient* (G) represents the average ratio between the proportion of total income actually earned by a specific household or individual and the proportion of income the household or individual would have earned had income been distributed equally. G = 0 denotes total equality and G = 1 total inequality (Paukert, 1973).

- The *headcount poverty index* (H) is a measure of the prevalence or incidence of poverty, i.e. the percentage of the population with a level of income or consumption below the poverty line (z). H = q/n, where q represents the number of poor persons falling below the poverty line z and n the total population (Ravallion, 1992/94a/94b; Lipton and Ravallion, 1995).

- The *poverty gap index* (PG) is a measure of the intensity or depth of poverty that allows for how far the poor fall below the poverty line. The index is calculated as each individual's shortfall below the poverty line (z) summed over the total population. It considers the non-poor to have a zero poverty gap. $PG = 1/n \Sigma [(z-y_1)/z] = H (1-\mu/z)$, where H represents the headcount poverty index, μ mean expenditure or income, and z the poverty line. PG can be interpreted as a measure of the potential saving to the poverty alleviation budget from targeting exactly the right amount of transfers to the poor. PG reflects the ratio between the cost of filling up each poverty gap to the poverty line (i.e. the sum of all poverty gaps) and transferring to everyone the value of the poverty line (i.e. z.n) (Ravallion, 1992/94a/94b; Ravallion and Bidani, 1994; Lipton; 1997; Ali; 1998).

[5] The estimates of the measures of poverty and inequality that are presented in these pages were calculated with the aid of the POVCAL program developed by the World Bank. POVCAL is an easy to use and reliable tool for routine poverty assessment work. It uses sound and accurate methods for calculating poverty and inequality measures with only a basic PC and any of the various types of grouped distribution data typically available, often in published form. POVCAL estimates a General Quadratic Lorenz curve and Beta Lorenz curve for each data set and then performs a range of tests to assess the validity of each of the Lorenz curves. The measures of poverty and inequality reported in these pages are based on the General Quadratic Lorenz curves estimated from the tabulated data. The General Quadratic Lorenz curves were invalid only in the case of two of the eight subgroups of paying and non-paying households, whereas the Beta curves were invalid in four cases. The violations of the conditions for validity were only minor in the two cases where the General Quadratic Lorenz curves were not valid. The General Quadratic Lorenz curves based on the expenditure-estimates were all valid. In most cases the General Quadratic Lorenz curves also fitted the data better than the Beta Lorenz curves. The sum of the squared standard errors over these Lorenz curves were generally extremely small and nowhere exceeded 0.0015.

- The *squared poverty gap index* (SPG) represents a measure of the severity of poverty that allows for the extent of inequality amongst the poor. The SPG attaches more weight to those gains furthest from the poverty line (Ali, 1998). The index is calculated as the mean of the squared proportional poverty gaps over the entire population with the non-poor again counted as having a zero poverty gap. SPG = $1/n\ \Sigma[(z-y_1)/z]^2 = PG^2/H + (H-PG)^2 / H*CV_p^2$, where H and PG respectively represent the headcount and poverty gap indexes, while CV_p^2 is the squared coefficient of variation of income or consumption amongst the poor (Ravallion, 1994a/94b; Ravallion and Bidani, 1994; Lipton and Ravallion, 1995; Lipton, 1997).[6]

Table C: Gini coefficients for non-paying and paying households

	Urban households		**Rural households**	
	Non-paying	***Paying***	**Non-paying**	**Paying**
1. Expenditure	0.468	0.421	0.425	0.388
2. Income	0.534	0.478	0.477	0.456

Because inequality is an important determinant of poverty, an analysis of the extent of inequality in expenditure and income can provide an important pointer to determining whether non-payment of services is a problem of ability-to-pay rather than willingness-to-pay. If inequality is more pronounced amongst non-paying households than amongst paying households, one would expect that more non-paying households fall below the poverty line. This in turn will mean that poverty is more prevalent amongst households that do not pay their municipal accounts in full each month. The Gini coefficients calculated for each of the groups of non-paying and paying households are reported in Table C. Evident from the results is that the degree of inequality is always higher amongst non-paying households than amongst paying households, regardless of whether expenditure or income is employed as proxy of standard of living. One may therefore tentatively conclude that poverty plays an important part in explaining the phenomenon of non-payment of services. However,

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[6] The headcount, poverty gap and squared poverty gap indices are special cases of the Foster-Greer-Thorbecke (FGT) class of poverty measures. $P_\alpha = 1/n\ \Sigma\ [z-y_i/z]^\alpha$, where z represents the poverty line and y_i the actual income or consumption level of each person or household. The three FGT measures each focus on a different conventional poverty measure. P_0, P_1 and P_2 respectively are derivatives of the headcount (H), poverty gap (PG) and squared poverty gap (SPG) indices (Greer and Thorbecke, 1986). As explained above, these poverty measures become more sensitive to the well-being of the poorest person as the value of α increases (Woolard and Leibbrandt, 1999: 28).

to further substantiate such an argument, one needs to perform a number of poverty comparisons, which is what any poverty analysis is essentially about.

Table D: Expenditure-based estimates of the headcount poverty index (H), poverty gap measure (PG) and squared poverty gap index (SPG) for non-paying and paying households

Poverty line (Rands in per capita equivalents)	***Non-paying urban households***			**Paying urban households**		
	H	**PG**	**SPG**	**H**	**PG**	**SPG**
A. Urban comparison						
150.00	14.517	4.089	1.531	6.327	0.993	0.207
200.00	22.810	7.740	3.477	13.016	3.164	1.024
228.00	27.266	9.866	4.709	16.716	4.602	1.685
267.66	33.297	12.896	6.551	21.861	6.779	2.789
300.00	37.941	15.347	8.101	25.950	8.626	3.794
304.58	***38.577***	***15.692***	***8.322***	***26.520***	***8.891***	***3.942***
358.79	45.703	19.698	10.959	33.074	12.055	5.778
400.00	50.607	22.633	12.961	37.793	14.465	7.244
500.00	60.728	29.281	17.705	48.174	20.195	10.921
522.65	62.694	30.687	18.747	50.306	21.454	11.761
600.00	68.606	35.207	22.193	56.979	25.614	14.617
Poverty line (Rands in per capita equivalents)	**Non-paying rural households**			**Paying rural households**		
	H	**PG**	**SPG**	**H**	**PG**	**SPG**
B. Rural comparison						
150.00	29.853	11.722	6.179	16.977	4.920	1.930
200.00	42.148	17.813	9.998	27.437	9.235	4.208
228.00	48.484	21.195	12.199	33.334	11.833	5.671
267.66	56.563	25.851	15.328	41.467	15.626	7.894
300.00	62.311	29.478	17.854	47.738	18.754	9.796
304.58	***63.064***	***29.978***	***18.209***	***48.591***	***19.196***	***10.070***
358.79	70.888	35.592	22.315	57.945	24.362	13.365
400.00	75.624	39.481	25.302	64.055	28.144	15.893
500.00	83.810	47.595	31.975	75.416	36.539	21.907
522.65	85.170	49.195	33.368	77.396	38.268	23.222
600.00	88.861	54.084	37.806	82.874	43.684	27.534

The main purpose with a poverty comparison is to determine whether the results of such a comparison are robust and consistent. The conclusion drawn from a poverty comparison, i.e. whether or not non-paying households are poorer than paying households, should not be dependent on the choice of a particular standard of living indicator, poverty line, or poverty measure (Ravallion and Bidani, 1994: 76; Ravallion, 1994b: 44-51). The extent to which paying and non-paying households are

affected by poverty is determined by comparing the headcount, poverty gap and squared poverty gap index across a critical range of poverty lines. These comparisons are affected for both expenditure and income data (page 3). The range of poverty lines includes the poverty lines reported in Table B and range from as low as R100 per month to R600 per month. The expenditure-based and income-based poverty measures calculated for each of the clusters of non-paying and paying households are respectively reported in Tables D and E. The results are reported for selected intervals within the critical range of poverty lines described above, as well as for the five specific poverty line estimates reported in Table B (page 5). Of particular interest here is the poverty line of R304.58 per month, which was derived from the R800 per month poverty line suggested as guideline for implementing indigent policies (Statistics South Africa, 2000: 6). Indigent policies are aimed at utilizing the unconditional S grant transferred to municipalities for subsidizing basic service delivery to the poor (Department of Local Government, 2000). The headcount poverty index for this particular poverty line represents an indication of the percentage of non-paying and paying households that would qualify for benefiting from such policy. The poverty estimates for this particular poverty line are reported in bold and in italics in Tables D and E.

According to the results presented in Table D (page 8), the incidence, intensity and severity of poverty are greater amongst non-paying households than amongst households that pay their municipal accounts in full each month. So, for example, poor, non-paying households in urban communities will have to boost their income by nearly thirty per cent to reach the poverty line of R304.58 equivalent per capita income. Paying households in turn only have to boost their income by close on twenty per cent to reach the same poverty line. Thus, poverty does appear to be a significant factor in explaining non-payment of services. This is particularly true for households from rural TLCs, amongst whom poverty is substantially higher than amongst households from urban TLCs. In terms, for example, of the poverty line suggested for the implementation of indigent policies (R304.58), sixty-three per cent of non-paying rural households will qualify for some kind of subsidy in comparison with only thirty-eight per cent of non-paying urban households. In addition, a relatively large percentage of households that are paying their accounts in full each month will also qualify for such subsidy. This asks serious questions about whether

adequate resources will actually be transferred to local government for extending these subsidies to all households that qualify for such assistance. The fact that poverty is also relatively high amongst households that pay their accounts suggests that poverty is not the only reason for non-payment of services. The particular reasons for non-payment of services are explored in greater detail in the report on the baseline survey.

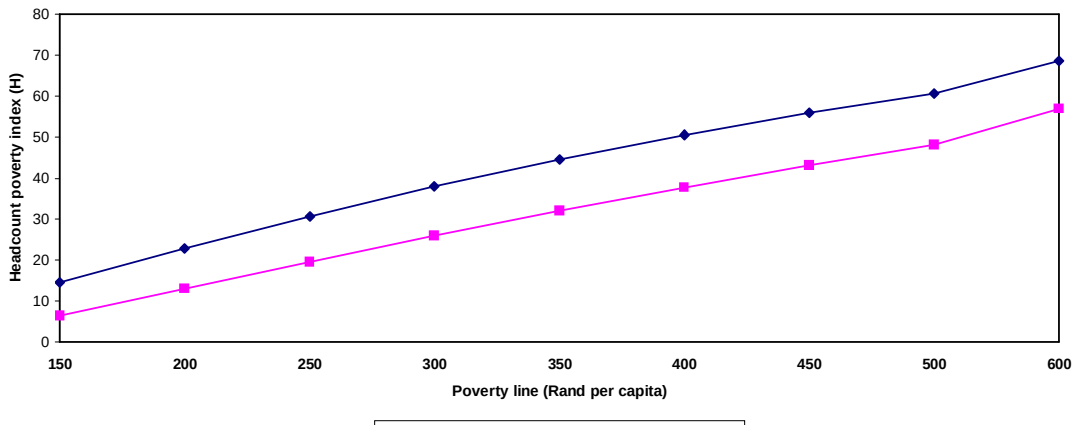
Table E: Income-based estimates of the headcount poverty index (H), poverty gap measure (PG) and squared poverty gap index (SPG) for non-paying and paying households

Poverty line (Rands in per capita equivalents)	***Non-paying urban households***			**Paying urban households**		
	H	**PG**	**SPG**	**H**	**PG**	**SPG**
A. Urban comparison						
100.00	9.706	4.148	2.375	1.474	0.111	0.011
200.00	21.389	9.841	6.064	11.203	3.230	1.240
228.00	24.656	11.460	7.125	13.888	4.375	1.833
267.66	29.229	13.755	8.638	17.643	6.063	2.767
300.00	32.883	15.621	9.876	20.654	7.474	3.585
304.58	***33.394***	***15.884***	***10.051***	***21.076***	***7.676***	***3.704***
358.79	39.287	18.979	12.126	25.983	10.073	5.157
400.00	43.549	21.292	13.696	29.591	11.899	6.300
500.00	52.960	26.708	17.451	37.840	16.275	9.136
522.65	54.895	27.887	18.286	39.601	17.248	9.783
600.00	60.948	31.769	21.086	45.301	20.502	11.987
Poverty line (Rands in per capita equivalents)	**Non-paying rural households**			**Paying rural households**		
	H	**PG**	**SPG**	**H**	**PG**	**SPG**
B. Rural comparison						
100.00	18.669	11.895	10.407	8.079	2.611	1.133
200.00	35.750	19.496	14.610	21.416	8.645	4.702
228.00	40.616	21.791	16.006	25.243	10.448	5.822
267.66	47.312	25.081	18.056	30.637	13.041	7.456
300.00	52.485	27.759	19.768	34.964	15.172	8.817
304.58	***53.192***	***28.136***	***20.012***	***35.569***	***15.747***	***9.011***
358.79	60.985	32.524	22.915	42.532	19.041	11.329
400.00	66.152	35.728	25.114	47.523	21.721	13.103
500.00	76.020	42.860	30.295	58.278	27.990	17.388
522.65	77.785	44.336	31.424	60.428	29.350	18.345
600.00	82.757	48.985	35.124	66.976	33.791	21.554

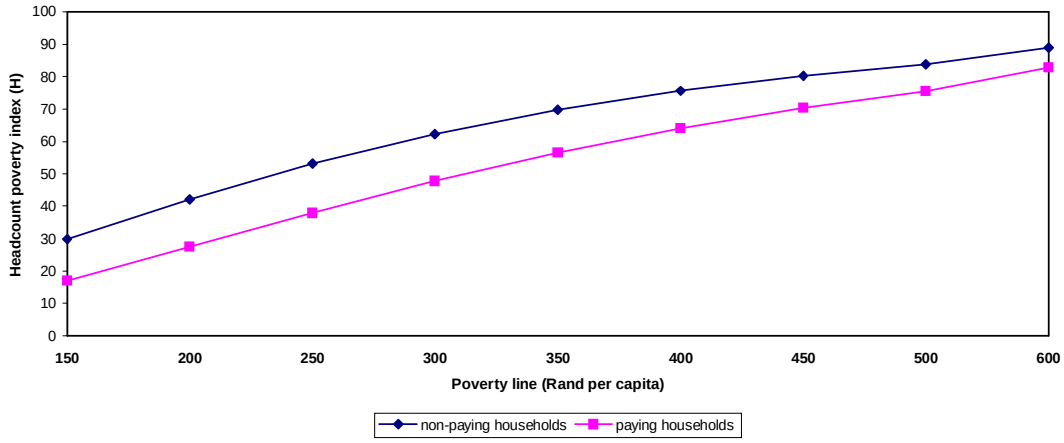
The results presented in Table E tell a similar story to that presented in Table D. The incidence, intensity and severity of poverty are again greatest amongst non-paying

households. As with expenditure, poverty is again more prevalent, intense and severe amongst households from rural TLCs. The income-based poverty estimates, though, are lower than the expenditure-based estimates. This may be because most households generally have a better idea of their total income than of their detailed monthly expenditure. Individuals and/or households have been found to rarely record expenditure data in detail (Woolard and Leibbrandt, 1999: 23-24). The baseline survey also collected data on total household consumption from only one respondent, namely the self-identified household head. As a result, the percentage of non-paying and paying households that would qualify for subsidies of basic service delivery are lower than in the case of the expenditure-based poverty comparison (Table D, page 8). However, these percentages are again relatively high, implying that there is considerable scope for such policy to support local councils in financing service delivery and affording the poor these basic services, given of course that an adequate amount of resources are made available for this purpose.

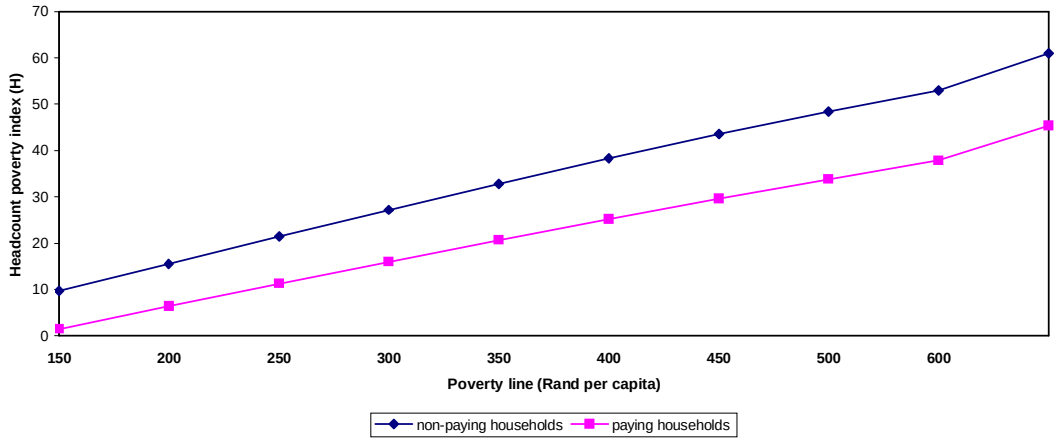
Graph A: Incidence of expenditure-based poverty amongst paying and non-paying urban households

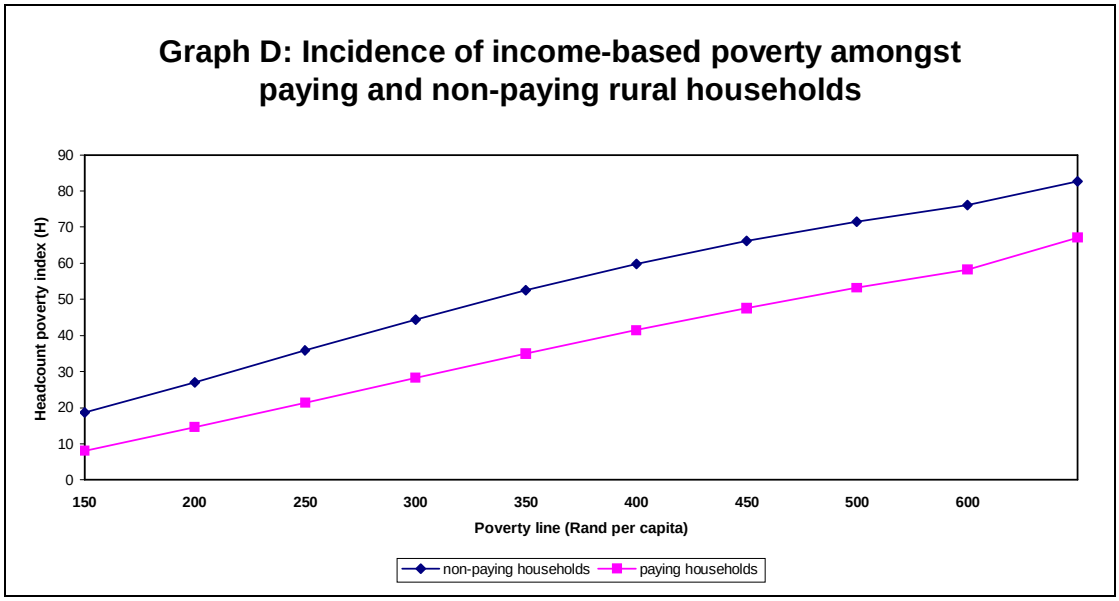


Graph B: Incidence of expenditure-based poverty amongst paying and non-paying rural households



Graph C: Incidence of income-based poverty amongst paying and non-paying urban households





An alternative way in which to present the results of such poverty comparison, but in a more visually understandable manner is to use so-called partial poverty orderings. This technique allows one to determine the extent to which different choices with regard to poverty lines and other measurement assumptions affect poverty comparisons (Ravallion, 1994b: 1-3; Woolard and Leibbrandt, 1999: 12). Poverty value curves are employed for this purpose. To obtain these curves, estimates of the headcount, poverty gap and squared poverty gap indices for non-paying and paying households are plotted for the critical range of poverty lines. The values of the poverty measure are plotted on the vertical axis and the cumulative values of the poverty line are plotted on the horizontal axis. A comparison is robust and consistent if the poverty value curve for one subgroup dominates and/or matches that of another subgroup across the entire range of poverty line estimates. This means that one subgroup is poorer than another subgroup regardless of the poverty line used for comparative purposes. Only the poverty incidence dominance curves for each of the four clusters of non-paying and paying households are reported here. According to Ravallion and Sen (1996: 776), the conditions for dominance will also hold for the poverty gap and squared poverty gap measures if it holds for the headcount index. The dominance curves for the poverty gap and squared poverty gap index are reported in the appendix to this paper (paper 37).

Evident from Graphs A to D (pages 11 to 13) is that levels of poverty are generally higher amongst non-paying households living in urban and rural communities, regardless of the choice of poverty measure, poverty line or indicator of standard of living. The poverty incidence curve for paying households dominates that of the non-paying households across the entire range of poverty lines. Therefore, as argued in the previous pages, poverty does seem to play an important part in explaining non-payment of services.

Table F: Percentage of ultra-poor, poor and non-poor households who reported that their consumption is less than adequate for meeting their households' needs

	Urban households		Rural households	
	Non-paying	**Paying**	**Non-paying**	**Paying**
A. Expenditure-based poverty comparison				
Ultra-poor households	75.0	42.9	75.5	44.4
Poor households	67.8	46.7	73.4	43.5
Non-poor households	53.8	47.0	69.5	50.5
B. Income-based poverty comparison				
Ultra-poor households	76.9	48.0	77.2	60.4
Poor households	68.7	49.1	81.2	40.0
Non-poor households	54.6	46.1	65.7	47.5

Note: Ultra-poor households represent households that spend or earn less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn more than R304.58 in per capita equivalent terms.

The results of the baseline survey underscore this insofar as approximately ninety per cent of non-paying households listed their reasons for not paying as being unemployed, having no or too little income, or rates being unaffordable. Three quarters of non-paying households indicated that they need to find employment or obtain an income before they will start paying their account. The argument that poverty matters, can also be substantiated by determining the extent to which poor households that are not paying their accounts indicated that their consumption is less than adequate for meeting their household's needs.[7] A distinction is made between

[7] Households were asked 'Concerning your household's consumption (all the money your household spent over the past twelve months), which one of the following is true?' The possible responses was that 'Consumption was less than adequate for our household's needs', 'Consumption was just adequate for our household's needs', or 'Consumption was more than adequate for our household's needs'.

ultra-poor, poor and non-poor households. The poverty line suggested for use in the implementation of indigent policies at the local government level is used for this purpose (page 9). Ultra-poor households represent households that spend or earn less than R400 per month, i.e. less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R400 and R800 per month, i.e. that is between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn in excess of R800 per month, i.e. more than R304.58 in per capita equivalent terms. A number of TLCs currently employ this same classification in their indigent policies. Households are ranked as ultra-poor, poor or non-poor based on their equivalent expenditure or income. The results are reported in Table F (page 14). According to Table F, a substantially larger percentage of ultra-poor and poor households that failed to pay their accounts indicated that their consumption is not adequate to meet their household needs, regardless of whether expenditure or income is used as basis for comparison. Thus, ability-to-pay appears to be a greater problem for non-paying than for paying households.

Because the above analysis does not take into account how many non-paying households there are in comparison to paying households, it fails to highlight the extent to which non-paying and paying households share the burden of poverty. Such analysis requires poverty measures that are additively decomposable. Additive decomposability means that overall inequality can be portioned into inequality between subgroups and within subgroups. Decomposition across space requires measures of the type $P_\alpha = n_A P_{\alpha A} + n_B P_{\alpha B}$, where A and B represent two subgroups and n_A and n_B the population shares of the two groups that the poverty estimate P_α for each group is weighted by (Lipton and Ravallion, 1995: 2580-2581; Thorbecke, 1998). The FGT class of poverty measures is additively decomposable (footnote 6, page 7). This feature of the three measures of poverty employed in this analysis makes it possible to determine the share of non-paying and paying households in the poverty burden. Poverty shares were calculated separately for urban and rural TLCs, as well as across the entire sample of households. Poverty shares were calculated with reference to the R304.58 poverty line derived from the suggested household income of R800 per month to be employed in identifying households that should

benefit from the subsidization by municipalities of basic service delivery (page 9). The results of these inter-group poverty comparisons are presented in Tables G and H.

Table G: Poverty shares of non-paying and paying households in the incidence, intensity and severity of poverty in urban and rural TLCs (percentage)

	Sample share (%)	Incidence (H)	Intensity (PG)	Severity (SPG)
A. Expenditure-based poverty comparison				
1. Non-paying urban households	42.5	51.8	74.6	60.9
2. Paying urban households	57.5	48.2	25.4	39.1
	100.00	**100.00**	**100.00**	**100.00**
1. Non-paying rural households	47.6	54.1	58.6	62.2
2. Paying rural households	52.4	45.9	41.4	37.8
	100.00	**100.00**	**100.00**	**100.00**
B. Income-based poverty comparison				
1. Non-paying urban households	42.4	53.8	60.4	66.6
2. Paying urban households	57.6	46.2	39.6	33.4
	100.00	**100.00**	**100.00**	**100.00**
1. Non-paying rural households	47.6	57.6	61.9	66.9
2. Paying rural households	52.4	42.4	38.1	33.1
	100.00	**100.00**	**100.00**	**100.00**

Table G further underlines the fact that there is not such a great difference between the share of poverty shouldered by non-paying and paying households (pages 8 to 11), at least not in terms of the incidence of poverty. However, when the poorest households (i.e. those furthest from the poverty line) are accorded a greater weight in measuring poverty, i.e. by employing the poverty gap and squared poverty gap measures (page 6), non-paying households carry a substantially larger share of the poverty burden than paying households. This means that the extent of inequality amongst poor households are considerably higher amongst non-paying than amongst paying households. As a result, indigent policies can be argued to be particularly crucial in affording poor households, that are not currently paying their municipal accounts in full each month, access to these basic services, be it at a partially or fully subsidized level. Equally evident, though, is that even households that do pay their

accounts in full each month are also worthy of benefiting from such policies. Paying households share in approximately one third of the poverty burden on urban and rural TLCs. The relatively greater need, though, is amongst poor, non-paying households.

Table H: Poverty shares of non-paying and paying households in the overall incidence, intensity and severity of poverty (percentage)

	Sample share (%)	Incidence (H)	Intensity (PG)	Severity (SPG)
A. Expenditure-based poverty comparison				
1. Non-paying urban households	21.8	19.5	19.1	18.6
2. Paying urban households	29.6	18.2	14.7	11.9
3. Non-paying rural households	23.1	33.7	38.8	43.1
4. Paying rural households	25.5	28.6	27.4	26.4
	100.00	**100.00**	**100.00**	**100.00**
B. Income-based poverty comparison				
1. Non-paying urban households	21.8	20.9	21.3	21.5
2. Paying urban households	29.6	17.9	14.0	10.7
3. Non-paying rural households	23.1	35.2	40.0	45.3
4. Paying rural households	25.5	26.0	24.7	22.5
	100.00	**100.00**	**100.00**	**100.00**

The poverty shares calculated across the entire sample of households allow one to determine the extent to which households in rural TLCs shoulder a relatively greater share of the poverty burden than their urban counterparts (Table H). Evident here is that non-paying households in rural TLCs carry the greatest proportion of the poverty burden, regardless of the poverty measure employed. The poverty share of non-paying rural households increases as the poorest households are accorded a greater weight, i.e. when calculating the poverty share using the poverty gap and squared poverty gap measures, and reaches toward fifty per cent. The poverty share of non-paying urban households in turn varies relatively little as the poorest households are accorded a greater weight. The share in poverty of rural households that do pay their accounts each month is approximately the same as (income-based comparison) and even larger (expenditure-based comparison) than the share in poverty accruing to non-

paying urban households. Paying households in urban areas shoulder the smallest share in poverty. As much as two thirds of the share in poverty accrues to households in rural areas. This highlights the extent to which poverty in South Africa is endemic to rural areas. These results suggest that indigent policies will be relatively more crucial in rural than in urban areas in affording the poor access to basic services. The greatest need for support lies amongst the non-paying rural households. Rural households that pay their accounts and non-paying households from urban TLCs appear to be equally worthy of such support, given the respective poverty shares of these two groups of households. Indigent policies, though, present only a short-term solution to the problem of non-payment of services. These subsidies, although crucial to the poor, cannot in the long run move households out of poverty. It merely addresses the symptoms of the problem. In order to identify those interventions that can address the causes of poverty over the longer term, one requires a greater understanding of the characteristics of poor, non-paying households. Poverty profiles are used for this purpose.

3. Poverty profile of poor, non-paying households in urban and rural TLCs

Poverty profiles can be presented in one of two formats (Ravallion, 1994b: 61-64). A so-called type B poverty profile is used here to identify the main characteristics of the poor. Because the analysis is based on cross-sectional data, which precludes the establishment of clear patterns of causality between cause and effect, the focus here is on the characteristics of the poor rather than the determinants or causes of poverty. A type B poverty profile reports the incidence of characteristics such as employment status, source of income and access to services amongst subgroups with different poverty status, e.g. those who are respectively poor and non-poor (Woolard and Leibbrandt, 1999: 41-47). Decompositions such as these allow a construction of a detailed profile of the characteristics and circumstances of the poor. According to Ravallion and Bidani (1994: 75), such profiles are normally the first step in formulating antipoverty policies. Because there is good reason to argue that expenditure presents a better proxy of standard of living than income (page 3) and due to constraints of space, the profiles are presented with reference to expenditure-based poverty estimates. Moreover, the Lorenz curves from which the expenditure-based measures of poverty were estimated, are all valid (footnote 5, page 6). Households

are ranked as ultra-poor, poor and non-poor based on equivalent household expenditure. The only exception is the analysis of differences in access to financial services, where income is employed as proxy of standard of living. Given the extent to which the payment of wages and salaries are affected via financial intermediaries such as banks, income is considered a better determinant of access to financial services than expenditure. Because of the importance of indigent policies in subsidizing service delivery to the poor at municipal level, the adjusted poverty line suggested for this purpose is employed in compiling these poverty profiles. The respective cut-off points employed in distinguishing between ultra-poor, poor and non-poor households are the same as those employed in compiling Table F (page 15). This investigation into the characteristics of the poor is limited to the type of variables on which data were collected during the baseline survey. The characteristics of poor non-paying households explored here include differences in unemployment, education, savings, debt and debt service, small business activity, asset ownership, and access to financial services. These characteristics of the poor are discussed in greater detail in the subsequent pages of this discussion paper.

3.1 Unemployment and non-payment of services

Employment status is probably the most important determinant of the earning capacity of a household and its ability to pay for services. During the baseline survey the employment status of each household member was recorded separately. For non-working household members a distinction was made between those who are unemployed and looking for work and those who are not looking for work but would accept work. Other possible responses for the unemployed included being a housewife/home-maker, a child/pupil/full-time student, a pensioner/retiree, a disabled person, or not wishing to work. Unemployment is here defined in the broad sense, meaning that unemployed persons not looking for work but willing to accept work are counted as unemployed. This is considered justified insofar as a very small proportion of unemployed household members indicated that they were not looking for work. The unemployment rate was calculated by dividing the number of unemployed persons by the number of unemployed and employed persons and expressing this as a percentage. The comparison is presented in Table I.

Table I: Unemployment rate for non-paying and paying households (percentage)

	Urban households		Rural households	
	Non-paying	**Paying**	**Non-paying**	**Paying**
1. Ultra-poor	75.93	63.64	66.97	63.55
2. Poor	71.36	61.00	68.18	56.33
3. Non-poor	43.98	37.94	48.44	36.39
Total	**56.17**	**44.98**	**60.27**	**46.54**

Note: Ultra-poor households represent households that spend or earn less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn more than R304.58 in per capita equivalent terms.

The results in Table I show that non-paying households on average are hit harder by unemployment than paying households. In fact, the average unemployment rate for non-paying households exceeds that for paying households regardless of whether the households are ranked as ultra-poor, poor or non-poor. This is the case in both urban and rural TLCs. The unemployment rate is highest amongst the ultra-poor and poor non-paying households in urban TLCs. The differential in unemployment is greatest for the ultra-poor households in urban communities. These results illustrate the role of unemployment in explaining non-payment of services and the consequent importance of job creation in addressing the situation. Again the results suggest that the non-payment problem has become one of ability-to-pay rather than willingness-to-pay issues. As mentioned elsewhere (page 14), this argument is also borne out by the large percentage of non-paying households that indicated that their main reason for not paying their account in full each month is being unemployed or having no income. The unemployment rate, as would be expected, decreases as one moves from the ultra-poor to the poor to the non-poor. Important, though, to note is that levels of unemployment are also very high amongst non-poor households. This is also the case amongst paying households, regardless of whether they are ranked as ultra-poor, poor or non-poor. As pointed out by Woolard and Leibbrandt (1999: 44), this simply reflects the extent to which the African population in South Africa carries the largest share of the unemployment burden.

3.2 Education and non-payment of services

Another important determinant of ability-to-pay is education. One would expect households with better-educated members to have better access to employment

opportunities, in the process enhancing their ability to pay for service delivery. During the baseline survey, information on literacy and highest educational qualification was collected for the household head only and not for each member of the household. Yet, the earning capacity of the household depends on the entire endowment of human resources and not simply on that of the household head. As a result, the analysis that was performed to determine whether the literacy and education level of the household head are related to non-payment of services produced results that were inconsistent with the above hypothesis. With the benefit of hindsight, it must therefore be said that the nature of the data does not allow a full exploration of the relationship between poverty, education and non-payment of services.

3.3 Savings and non-payment of services

Savings represent a possible source of finance for payment of services where current earnings may be inadequate to afford households to pay their account in full. The fact that a household is able to save implies that it should be able to pay for services. This argument is based on the assumption that households will only save once their most basic consumption needs are met, that households consider these municipal services as a basic need, and that a culture of non-payment is not that predominant. Given that poverty and unemployment have been shown to be more predominant amongst non-paying households, one would expect non-paying households to have less access to savings and also to save relatively less than paying households. During the baseline survey, households were required to indicate the total amount they save per month. Households were prompted to think of all possible forms of savings, including formal as well as informal vehicles for saving such as *stokvels*. A distinction is made between whether households save at all, and when they do save, what the relative extent of their savings is. Households whose monthly savings totaled zero are considered non-savers, whereas households that did report some savings are treated as savers. On this basis, a comparison is first made between the proportion of non-paying and paying households that save. An average savings rate was calculated by dividing the monthly savings of each household by its monthly expenditure and expressing this as a percentage. This savings rate can be considered to be a reflection of the extent to which savings are adequate to sustain current expenditure in future.

Household savings rates were then averaged across the number of households included in each of the clusters of non-paying and paying households, including those households that do not save at all. These comparisons of the savings behavior of non-paying and paying households in urban and rural TLCs are presented in Tables J and K.

Table J: Percentage of non-paying and paying households that save

	Urban households		Rural households	
	Non-paying	**Paying**	**Non-paying**	**Paying**
1. Ultra-poor	12.5	25.0	5.7	22.2
2. Poor	19.5	33.7	23.9	29.6
3. Non-poor	54.3	68.3	49.2	63.5

Note: Ultra-poor households represent households that spend or earn less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn more than R304.58 in per capita equivalent terms.

According to the results presented in Table J, a much smaller percentage of non-paying households actually save an amount of money each month, particularly amongst the ultra-poor. This means that non-paying households have less access than paying households to accumulated savings from which to pay for services. In course of time, this could enhance the probability that households that are currently not paying their accounts will remain to do so in future, assuming that their current circumstances do not change dramatically (e.g. that unemployed household members find some employment). This could increase the divide between rich and poor municipalities, in the process creating an even greater scope for intergovernmental transfers to address these inequalities. Again, it is clear that indigent policies present an important instrument for alleviating poverty through subsidized service delivery to the poor.

Table K: Monthly savings by non-paying and paying households as percentage of monthly household expenditure

	Urban households		Rural households	
	Non-paying	**Paying**	**Non-paying**	**Paying**
1. Ultra-poor	2.890	9.112	1.066	5.181
2. Poor	2.927	7.382	4.124	5.848
3. Non-poor	10.019	15.929	7.579	13.066
Total	**7.235**	**13.703**	**4.468**	**9.556**

Note: Ultra-poor households represent households that spend or earn less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn more than R304.58 in per capita equivalent terms.

The monthly amount saved by non-paying households is smaller on average in relation to their monthly household expenditure than is the case for paying households. This relationship holds for the comparison between ultra-poor, poor and non-poor households. Non-paying households therefore have access to a smaller pool of savings than paying households and face greater resource constraints than paying households. Again, poverty or lack of ability-to-pay presents a plausible and relatively important explanation of the problem of non-payment of services.

3.4 Debt, repayment of debt and non-payment of services

Another important determinant of ability-to-pay on which data were collected during the baseline survey is debt and servicing of debt, which can place considerable strain on household finances. Households were asked to list all outstanding debts owed to an institution or person who is not a member of the household. Interviewers also recorded the monthly repayments required to settle these debts. A poorer ability-to-pay would be reflected in a relatively higher burden of debt on the household. Poor households, who generally have lower levels of income, may often have to resort to borrowing to sustain current levels of expenditure, thus increasing the relative debt burden on these households. If therefore, poverty is important in explaining non-payment of services, non-paying households that are poor should face a relatively higher debt burden than paying poor households. As in the case of savings (page 21), a distinction is made between whether households have any debts (Table L), and in case they do, what the relative extent of these debts and debt repayments is (Tables M and N). A comparison is first drawn between the proportion of non-paying and paying households that have some debt. The relative size of the debt burden faced by each household was determined by calculating what percentage total debt and debt repayments make up of monthly household expenditure. This reflects the extent to which debts and debt repayments can crowd out household expenditure. These percentages were averaged across the total number of households included in each of the clusters of non-paying and paying households, including households that have no debt. These comparisons of the debt situation facing non-paying and paying households are presented in Tables L, M and N.

Table L: Percentage of non-paying and paying households that have some debt

	Urban households		Rural households	
	Non-paying	**Paying**	**Non-paying**	**Paying**
1. Ultra-poor	30.0	14.3	24.5	14.3
2. Poor	37.9	34.8	47.7	38.3
3. Non-poor	59.4	58.9	74.2	65.0

Note: Ultra-poor households represent households that spend or earn less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn more than R304.58 in per capita equivalent terms.

As expected, the proportion of households that have some debt increases as one moves from the ultra-poor to the poor to the non-poor. This is because poorer households, who have been shown on average to earn less than non-poor households (page 4), are less likely to be able to obtain credit or make arrangements for borrowing money. Furthermore, non-paying households can be argued to be less able to pay for services than paying households. A larger proportion of non-paying households has some debt and face expenditure constraints that could force them to curtail their payment of municipal accounts. These differentials are greatest for the ultra-poor, which lends support to the national government's efforts to intervene in the micro-finance industry so as to protect the poorest of the poor from being exploited. Although the differences between some of the other clusters of non-paying and paying households are relatively small, the nature of the relationship is consistent with the above hypothesis that non-paying households are more constrained by debt than paying households and therefore have less of an ability-to-pay. Once again, the results support the argument that to some extent poverty explains persistent problems with regard to non-payment of services.

Table M: Total debt of non-paying and paying households as percentage of monthly household expenditure

	Urban households		Rural households	
	Non-paying	**Paying**	**Non-paying**	**Paying**
1. Ultra-poor	174.159	16.113	108.930	58.613
2. Poor	135.558	85.521	173.864	112.584
3. Non-poor	153.701	194.585	277.407	215.060
Total	**151.355**	**160.346**	**192.437**	**157.809**

Note: Ultra-poor households represent households that spend or earn less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn more than R304.58 in per capita equivalent terms.

The results presented in Table M lend even further support to this hypothesis. The relative debt burden faced by non-paying households, expressed here as total debt

divided by current household expenditure, by far exceeds that faced by paying households. Again, the difference between ultra-poor households that pay their accounts and those that do not is extremely acute. These differentials decrease as the comparison moves to poor and then to non-poor households. The fact that the relative debt burden is highest amongst non-poor households is understandable insofar as non-poor households can access credit more readily, given that they have access to more collateral and on average earn more than poor households do.

Table N: Monthly repayment of debt by non-paying and paying households as percentage of monthly household expenditure

	Urban households		Rural households	
	Non-paying	**Paying**	**Non-paying**	**Paying**
1. Ultra-poor	9.930	3.691	9.610	4.635
2. Poor	10.471	8.679	14.039	11.374
3. Non-poor	13.037	13.163	24.792	17.308
Total	**11.965**	**11.619**	**16.683**	**13.390**

Note: Ultra-poor households represent households that spend or earn less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn more than R304.58 in per capita equivalent terms.

The comparison of the relative debt burden facing non-paying and paying households in terms of monthly debt repayments expressed as percentage of household expenditure presents a similar picture. In the case of non-paying households, debt repayments constitute a larger proportion of household expenditure. This means that debt repayments are likely to exert more pressure on the finances of non-paying households, possibly leading to the curtailment of account payments. As in Table M (page 23), the differences between non-paying and paying households that are ultra-poor are considerably greater than for poor and non-poor households. This may be due to the fact that very poor households often have to borrow money at very high interest rates because they have little collateral and also lack access to financial services (page 30). As in the case of the debt burden expressed in terms of total debt relative to household expenditure (page 23), non-poor households are able to afford a relatively greater repayment burden than poor households, simply because they have access to relatively more financial resources. An important reason, therefore, for poverty being instrumental in explaining non-payment of services is the fact that non-paying households face a relatively higher debt and debt repayment burden than paying households. Klasen (1997: 75-76) reported similar results with regard to the

debt and debt service burden on poor and non-poor in his analysis of the 1993 Saldru survey data.

3.5 Small business activity and non-payment of services

Given that poverty and unemployment levels are relatively higher amongst non-paying than paying households (pages 8 to 11 and page 19), it is also of interest here to determine to what extent poor and non-poor households operate businesses from home. Such activities represent important strategies open to the unemployed to supplement their earnings and thus be able to pay for services. During the baseline survey, respondents were asked to indicate whether they are running any business from their home. The percentage of non-paying and paying households that operate at least one type of small business from home is reported in Table O.

Table O: Percentage of non-paying and paying households that operate at least one type of small business from home

	Urban households		Rural households	
	Non-paying	**Paying**	**Non-paying**	**Paying**
1. Ultra-poor	25.0	10.7	15.1	9.5
2. Poor	14.9	17.4	9.2	18.3
3. Non-poor	20.8	13.8	13.3	18.0

Note: Ultra-poor households represent households that spend or earn less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn more than R304.58 in per capita equivalent terms.

The results in Table O suggest that small businesses operated from home present ultra-poor households with an important source of income. In both urban and rural TLCs a larger number of ultra-poor households that still do not pay their accounts in full operate at least one such business. This is inconsistent with the above argument that such activities may present households with a source of income to afford them the ability to pay their account. This may be because for the ultra-poor such income is relatively more crucial for financing their most basic physical needs than for paying their municipal account. For these households, informal economic activities are merely survivalist strategies. This again highlights the importance of indigent policies in affording the poorest of the poor subsidized access to basic public services. In the case of poor households, though, a larger proportion of paying households operates small businesses from home. This implies that for those households that are poor, but that do not have to live from hand to mouth like the ultra-poor, such activities may be

instrumental in enhancing their ability to pay their municipal account. This same argument is supported only in the case of non-poor rural households, where a larger proportion of households paying their account in full each month actually operate small businesses from home. These results, although inconsistent with the above hypothesis in some instances, are presented here to highlight the possibilities that exist for small business development in alleviating the problem of non-payment of services. A relatively small percentage of the African population actually operates a small business from their homes (as is evident from the relatively low percentages reported in Table O), whereas the extent of poverty amongst these households is considerably high (pages 8 to 11). The baseline survey shows that only 3.5 per cent of non-paying households indicated that they launched entrepreneurial activities to pay accounts in arrears. This implies a possibility that there exists substantial scope for promoting small business activity amongst poor, non-paying households, in the process empowering them to earn a living and pay their service accounts. Local councils should explore such options through partnerships with national, provincial and local institutions involved in the banking and development financing sectors. In doing so, cognizance should be taken of the constraints and realities prohibiting small business development, especially in underdeveloped areas. These constraints and realities, amongst other things, include a lack of institutional capacity, shortage of human resources, lack of diversification, and shortage of sizeable markets.

3.6 Asset ownership and non-payment of services

Another important determinant of ability-to-pay is the number of assets owned by the household. Generally speaking, one would expect poorer households to own fewer assets, because they lack the necessary income to obtain these assets and because they may often have to sell these assets to sustain themselves. In terms of asset ownership, data were collected on a number of specific assets. Eight specific assets were listed, namely a radio, a television, a telephone, a refrigerator, a stove or hotplate, an electrical heater, a geyser, and an electrical kettle. Households had to indicate which of these assets they owned. Allowance was also made for recording ownership details on additional electrical appliances. The relationship between poverty, ownership of assets and non-payment of services is analyzed with reference to the number of assets owned by the household, as well as the percentage of households that own specific

assets. In the case of specific assets, only the meaningful results are presented here, primarily because of constraints of space. The total number of assets owned by each household was divided by the number of members in that same household. This adjustment is important, because a very large household that possesses the same number of assets as a much smaller household will be considered equal in economic status to the smaller household if no allowance is made for differences in household size. In this specific example, the larger household is obviously relatively worse off than the smaller household. A distinction is drawn between households that own no assets, those that own one or less asset per capita, and those for which the asset ratio exceeds one. The comparison of the relative number of assets owned by non-paying and paying households is presented in Table P. Differences in the ownership patterns of individual assets are respectively presented in Tables Q and R.

Table P: Asset ownership of non-paying and paying households

	Urban households		Rural households	
	Non-paying	**Paying**	**Non-paying**	**Paying**
A. Percentage of households that earn no assets				
1. Ultra-poor	7.5	7.1	20.8	11.1
2. Poor	5.7	6.5	11.9	10.4
3. Non-poor	2.0	0.9	7.8	6.5
B. Percentage of households with an asset ratio of one or less				
1. Ultra-poor	60.0	50.0	64.2	71.4
2. Poor	66.7	57.6	67.9	60.9
3. Non-poor	28.4	16.3	45.3	39.0
C. Percentage of households with an asset ratio in excess of one				
1. Ultra-poor	32.5	42.9	15.0	17.5
2. Poor	27.4	35.9	20.2	28.7
3. Non-poor	69.6	82.8	46.9	54.5

Note: Ultra-poor households represent households that spend or earn less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn more than R304.58 in per capita equivalent terms.

As expected, the extent of non-ownership (zero assets) and relatively low ownership (ratio ~ 1) is more pronounced amongst rural than amongst urban households (Table P). A large proportion of rural households owns no assets or relatively few assets in comparison with urban households. A large proportion of urban households owns a relatively large number of assets in comparison with rural households. Furthermore, the extent of non-ownership (zero assets) or low ownership (ratio ~ 1) and the extent of high ownership (ratio > 1) respectively, are relatively lower and higher amongst non-poor than amongst poor households. The differences between ultra-poor and

poor households are relatively small, although ultra-poor households are in many instances worse off than less poor households when it comes to asset ownership. Asset ownership, therefore, presents a good proxy of differences in the socio-economic status of households.

The results presented in Table P also highlight the fact that poverty again appears to be an important cause of non-payment of services. In terms of relatively high ownership (ratio > 1), paying households outperform non-paying households in all cases. When it comes to low ownership (ratio ~ 1), a larger percentage of non-paying than paying households falls into this category. The only exception is the comparison of ultra-poor rural households, where non-paying households outperform paying ones. The differences between non-paying and paying households are relatively small with regard to non-ownership (zero assets). If poverty is an important cause of non-payment of services, a larger proportion of non-paying households should own no assets compared with paying households. The results of this comparison are consistent with this argument, except in one specific case (i.e. the comparison of poor, urban households).

When it comes to specific assets, it is again evident that poverty plays an important part in explaining the inability of certain households to pay their municipal account, that is insofar asset ownership is assumed to present a proxy of ability-to-pay (page 27). In Tables Q and R, a smaller percentage of non-paying households than paying households owns the specified assets. In addition, the extent of ownership also increases as one moves from the ultra-poor to the poor and to the non-poor within the same cluster.

Table Q: Percentage of non-paying and paying urban households that owns specific assets

	Non-paying	Paying
A. Radio		
1. Ultra-poor	55.0	71.4
2. Poor	77.0	77.2
3. Non-poor	88.3	95.3
B. Electrical heater		
1. Ultra-poor	15.0	25.0
2. Poor	16.1	18.5
3. Non-poor	37.6	54.9
C. Geyser		
1. Ultra-poor	2.5	10.7
2. Poor	9.2	17.4
3. Non-poor	33.0	43.9
D. Electrical kettle		
1. Ultra-poor	60.0	67.9
2. Poor	55.2	62.0
3. Non-poor	75.6	83.7
E. Telephone		
1. Ultra-poor	10.0	10.7
2. Poor	29.9	34.8
3. Non-poor	58.4	59.2

Note: Ultra-poor households represent households that spend or earn less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn more than R304.58 in per capita equivalent terms.

The results presented in Tables Q and R also present one with an opportunity to make some brief observations about other aspects of asset ownership. The relative size of these percentages can be considered an indicator of the commonality of ownership, i.e. the extent to which ownership is sensitive to differences in standard of living. So, for example, a large proportion of households owns an electrical kettle, whereas relatively few households own a geyser. It is also of interest here to note that assets that represent good proxies of differences in socio-economic status in urban communities are not the same assets that performed well in the analysis of ownership patterns in rural communities. The only asset that features in both the urban and rural comparisons is the electrical kettle. Furthermore, the fact that certain assets failed to feature in either of the comparisons may be an indication that the specific asset does not represent a good proxy of socio-economic status in that particular setting. So, for example, a television, a refrigerator and a stove did not feature in the urban analysis. This is understandable insofar as a large majority of urban households actually own

these assets, whereas ownership of these specific assets is perhaps less common in rural settings.

Table R: Percentage of non-paying and paying rural households that owns specific assets

	Non-paying	Paying
A. Television		
1. Ultra-poor	42.5	55.6
2. Poor	61.5	67.0
3. Non-poor	72.7	76.5
B. Refrigerator		
1. Ultra-poor	23.6	38.1
2. Poor	52.3	60.9
3. Non-poor	65.6	75.5
C. Stove/hotplate		
1. Ultra-poor	33.0	38.1
2. Poor	42.2	53.0
3. Non-poor	62.5	71.5
D. Electrical kettle		
1. Ultra-poor	35.8	39.7
2. Poor	46.8	52.2
3. Non-poor	54.7	73.0

Note: Ultra-poor households represent households that spend or earn less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn more than R304.58 in per capita equivalent terms.

3.7 Access to financial services and non-payment of services

Ability-to-pay can also be measured indirectly by looking at access to financial services. During the baseline survey, household heads were required to indicate whether they have access to any of six specified financial services. Access to financial services is largely dependent on the financial position of the household head. Having a job and earning an income will gain a person access to a savings or current account, because the payment of wages and salaries is usually administered through financial intermediaries. For this reason, this particular comparison is presented with reference to the income-based classification of households as ultra-poor, poor and non-poor. The fact that the analysis based on expenditure-based poverty estimates in fact yielded inconsistent results, appears justified in the context of the above argument that access to financial services is determined by income rather than by expenditure. If poverty plays an important part in explaining non-payment of services one would expect non-paying households on average to have more limited access to financial

services than households that pay their municipal accounts in full each month. For the purpose of this comparison, a distinction is made between households that have access to no financial services, those that have access to one service only, and those that have access to two or more financial services. This comparison of differentials in access to financial services is presented in Table S.

Table S: Access of non-paying and paying households to financial services

	Urban households		Rural households	
	Low-paying	**High-paying**	**Low-paying**	**High-paying**
A. Percentage with access to no financial services				
1. Ultra-poor	82.1	72.0	88.0	62.5
2. Poor	73.1	54.4	74.1	64.4
3. Non-poor	36.7	29.1	49.4	35.0
B. Percentage with access to at least one financial service				
1. Ultra-poor	10.3	4.0	8.7	8.3
2. Poor	23.9	7.0	17.6	24.4
3. Non-poor	36.7	26.5	33.1	30.4
C. Percentage with access to two or more financial services				
1. Ultra-poor	7.7	24.0	3.3	29.2
2. Poor	3.0	38.6	8.2	11.1
3. Non-poor	26.6	44.4	17.5	34.6

Note: Ultra-poor households represent households that spend or earn less than R152.29 per month in per capita equivalent terms. Poor households are households that spend or earn between R152.29 and R304.58 per month in per capita equivalent terms. Non-poor households are households that spend or earn more than R304.58 in per capita equivalent terms.

A much larger percentage of non-paying households do not have access to financial services compared with paying households. This holds for both urban and rural TLCs, although it is also evident from the comparison that urban households have access to or employ a wider range of financial services than rural households. The extent of no access is as high as eighty-eight per cent amongst non-paying rural households that are ultra-poor. Seventy-five per cent or more of ultra-poor and poor households that are not paying their municipal account have no access to any financial service. Because they are poor and in many cases also unemployed, non-paying households generally do not have access to the income and/or jobs that would have gained them access to the financial services network. These same circumstances, as explained elsewhere, also explain why these households may be unable to pay their accounts, because of lack of ability-to-pay rather than unwillingness-to-pay. Hence, this particular comparison also supports the theory that poverty is an important cause of non-payment of services.

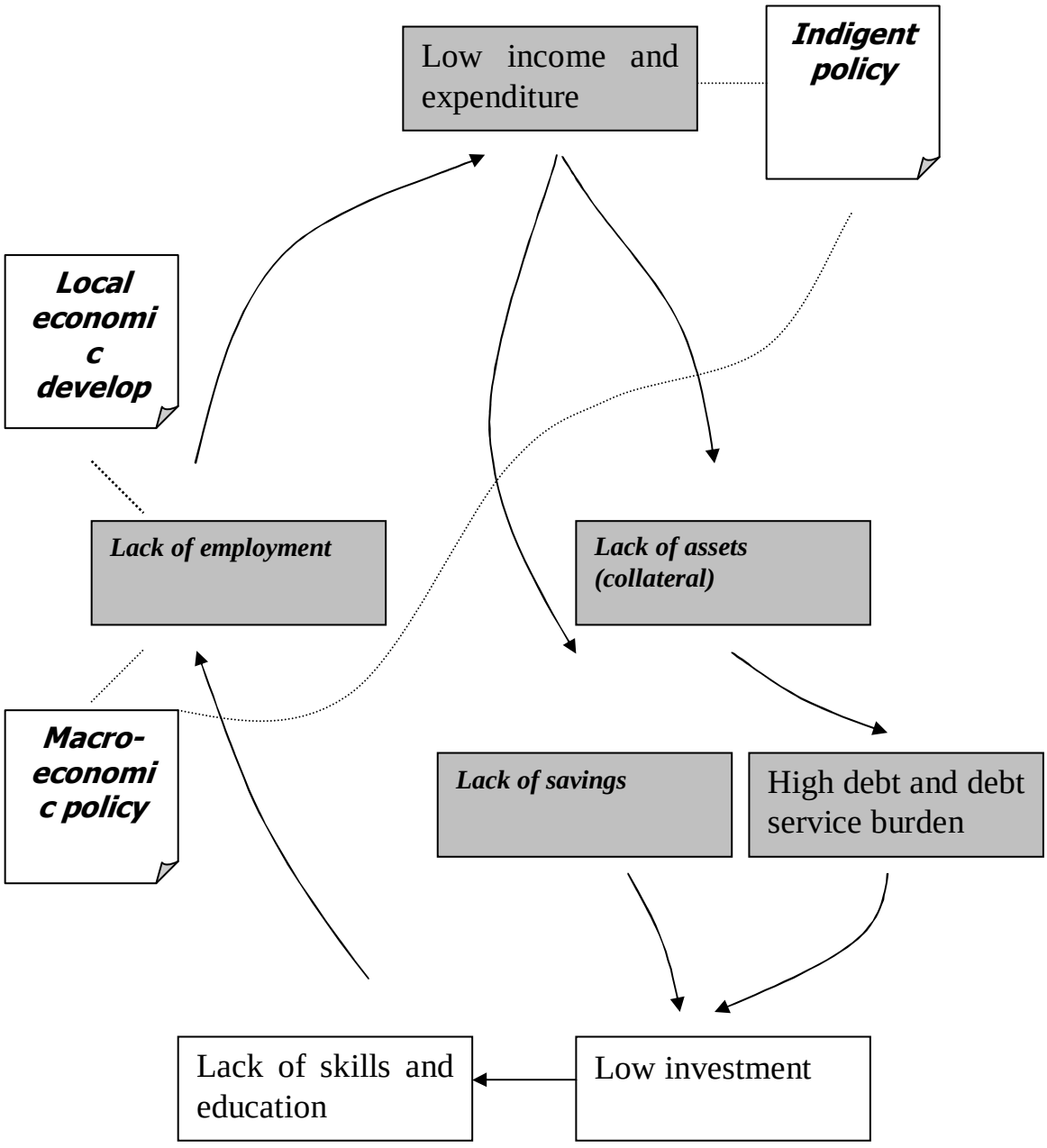
However, the extent of no access is also quite high amongst households that had indicated that they pay their accounts. This suggests that the problem of limited access to financial services is not only related to poverty, but that many Africans because of the history of our country have been denied access to these services. Table S also shows that a relatively large percentage of paying households does have access to one or more financial service. This hints at the importance of financial services in enabling municipalities to obtain regular and full payment for services from their customers. In this context, the lack of access to financial services amongst non-paying households also complicates matters for municipalities, because poor non-paying households from whom a flat rate payment could have been secured via the financial system have no access to the system. In addition, municipalities also do not have the option to use the financial system to verify the financial details of households that apply for a subsidy of basic services under the indigent policy. Thus, municipalities perhaps also need to consider how they can work together with other role players to enhance the access of poor households to an affordable financial service package tailor made for the payment of municipal services.

4. The vicious cycle of poverty and non-payment of services

In terms of the results presented in the previous pages, non-paying households can generally be described as being poorer than paying households. Poor, non-paying households have been characterized as households that carry a relatively greater proportion of the unemployment burden, that have no or limited access to savings, that face considerably larger debt burdens, that own relatively few assets, and that have relatively limited access to financial services. Given these characteristics of non-paying households, it is clear that these households are caught up in a so-called 'vicious circle of economic constraints' (Burkey, 1996: 16), which prohibits them from paying their municipal accounts in full each month. Non-paying households in urban and rural TLCs are caught up in this same vicious cycle of poverty. This vicious cycle is described in Figure A. A discussion of the non-payment problem can be started at any point in the cycle. The elements in this cycle - for which evidence of their link with non-payment of services is reported in these pages - are presented as shaded squares. The elements in the cycle that could not be operationalized with data collected from the baseline survey so as to find evidence of their link with non-

payment of services, are presented as non-shaded squares. In the case of education, for example, the data that were collected during the baseline survey do not allow for an adequate analysis of its role in poverty and non-payment of services (page 20).

Figure A: A Vicious Cycle of Poverty and Non-payment of Services



Note: Adapted from Figure 1.4 in Burkey (1996: 16).

Figure A also describes the three policy interventions that are of particular importance in breaking this vicious cycle and in addressing the poverty issues underlying the problem of non-payment of services. The importance of these policies will be discussed in more detail in the final section of this discussion paper, which focuses on policy recommendations.

5. Development policy: addressing the problem of non-payment of services

Reference has already been made to the particular role of indigent policies in addressing the problem of non-payment of services. The underlying elements of local economic development (LED) initiatives have also been touched upon (e.g. job creation and small business development). Macro-economic policies, furthermore, represent interventions that in the longer term can address the lack of employment at the root of this vicious cycle. Whereas local economic development (LED) initiatives and macro-economic policies are longer term policies aimed at addressing the unemployment problem, indigent policies are aimed at alleviating poverty over the short term by indirectly supplementing the income/expenditure of poor households via a subsidy of basic service delivery.

- Indigent policies

In the discussion presented in the preceding pages the importance of indigent policies in assisting poor households that cannot afford to pay their municipal accounts in full each month has been highlighted in more than one instance. Given the high burden of poverty on non-paying households, especially in terms of the intensity and severity of poverty, it is crucial that indigent policies when implemented correctly, identify those persons who are in greatest need. In this way, the effectiveness of these policies in addressing the problem of non-payment of services can be maximized. Evident, though, from the poverty comparisons presented in these pages is that municipalities may need to set their own requirements in terms of the level of income at which households will qualify for assistance. The use of the suggested poverty line (i.e. R800 household income per month) may mean that the number of persons who actually qualify for assistance is not commensurate with the grant received from national government. In order to ensure that needs are balanced with resource

constraints local councils will have to carefully assess the criteria used to identify households that should benefit as well as the value of the subsidy afforded to these households, depending on their specific circumstances. So, for example, municipalities may decide to use a lower or higher level of household income to identify those households that will benefit from the subsidization of basic services, given the extent of poverty in the area falling within the municipal boundary. Alternatively, local councils may lower or increase the level of subsidy to ensure that all those households that qualify for assistance in terms of the suggested poverty line are accorded such a subsidy. However, there remain some doubts as to whether all municipalities, particularly the poorer, rural ones, have the capacity to do this and to thus implement indigent policies effectively. Local government officials consulted in provincial workshops that were conducted as part of this research project confirmed this point. The public finance discussion paper, furthermore, has shown that in general rural councils are in a weaker financial position than urban councils. Consequently, it is felt that more work is required to develop the structures and systems required in administrating and managing indigent policies at the municipal level. Encouraging, though, is the fact that in the 2001/02 budget the Minister of Finance has allocated more funds to local government, particularly for dealing with some of these problems. The share of local government in total allocated expenditure will increase from 3.0 to 3.3 per cent over the next three financial years (National Treasury, 2001: 141-163).

- Local economic development (LED) initiatives

The Guide to Municipalities on Local Government and Economic Development describes a number of specific local economic development (LED) initiatives, including a very specific focus on job creation through local economic growth and small enterprise development (Department of Local Government, 1999b). As explained in the previous pages, these initiatives are crucial in addressing the unemployment problem that lies at the root of the problem of non-payment of services (Figure A, page 33). However, a recent report issued by the Department of Local Government following an investigation into the extent to which LED initiatives are really linked to poverty alleviation, found that these initiatives are in many cases not geared to poverty alleviation. It would seem that many municipalities still expect the

benefits of economic growth to automatically trickle down to the poor. The report also found that the extent to which job creation benefits previously disadvantaged local communities is limited in many instances (Department of Local Government, 1999a). The literature on LED in South Africa also highlights other threats to the successful implementation of such initiatives. These threats include a lack of clear objectives and performance criteria, a lack of financial and political support from higher levels of government, and a shortage of personnel trained in LED matters. Local development projects are also not always sustainable over the longer term (Elliot, 1997; Nel and Humphrys, 1999; Department of Local Government, 1999a). Local government officials consulted in provincial workshops that were conducted as part of this research project confirmed that lack of capacity and skills is a major obstacle to the implementation of LED initiatives. Given this background, the danger remains that LED initiatives may be largely ineffective in addressing the underlying causes of poverty that appears to be central to the problem of non-payment of services. Thus, a concerted effort is required from the Department of Local Government to in partnership with local councils and other role players do their utmost to ensure the success of local economic development (LED) initiatives in contributing toward poverty alleviation. Encouraging as well is that conditional transfers to local government for local economic development programs will increase from R76 to R127 million over the next three financial years (National Treasury, 2001: 157).

- Macro-economic policies

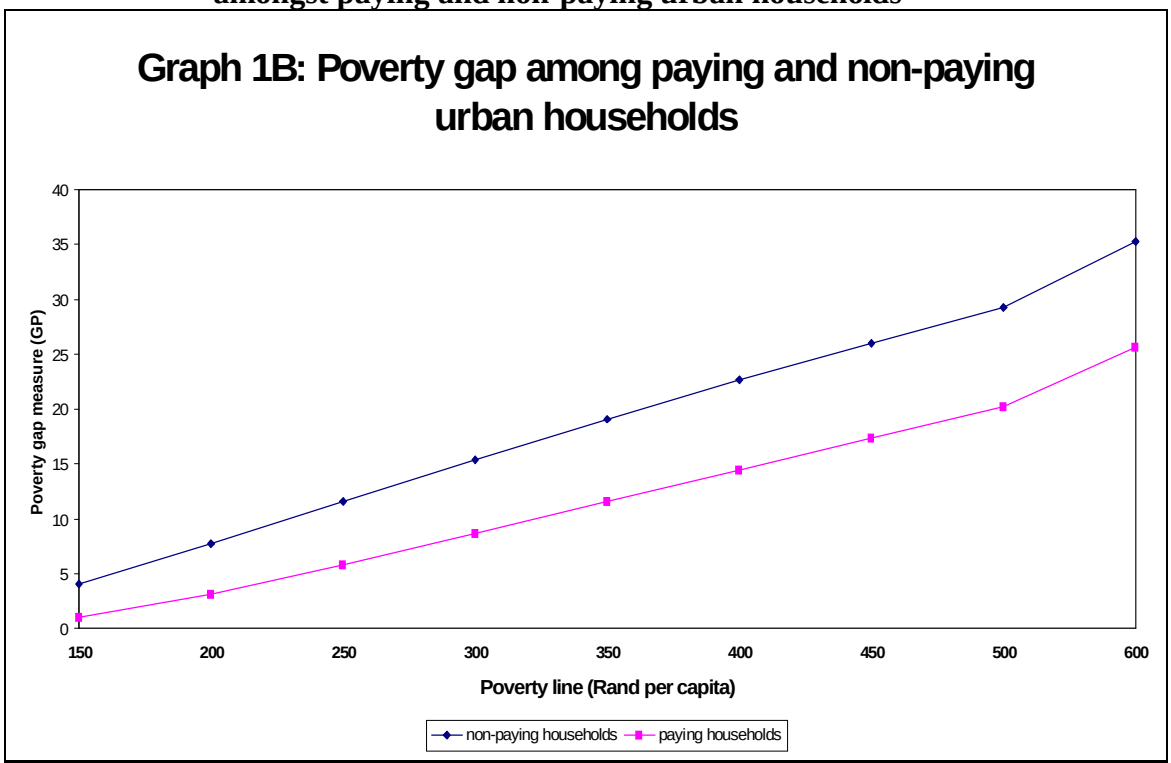
The macro-economic policy (GEAR) employed by government has economic growth, employment creation and redistribution as its long-term objectives. In this sense, these policies are ultimately geared to eradicate poverty and to address the problem of non-payment of services indirectly. In addition, the link between fiscal and indigent policy (Figure A, page 33) is of particular importance. Inter-governmental transfers to local government, and more specifically the so-called S-grant, are supposed to be used for financing these indigent policies aimed at subsidizing service delivery to the poor. This paper raises two issues of particular importance with regard to this link between fiscal policy and indigent policies. Firstly, given the high share of the poverty burden shouldered by non-paying households, it may be necessary to

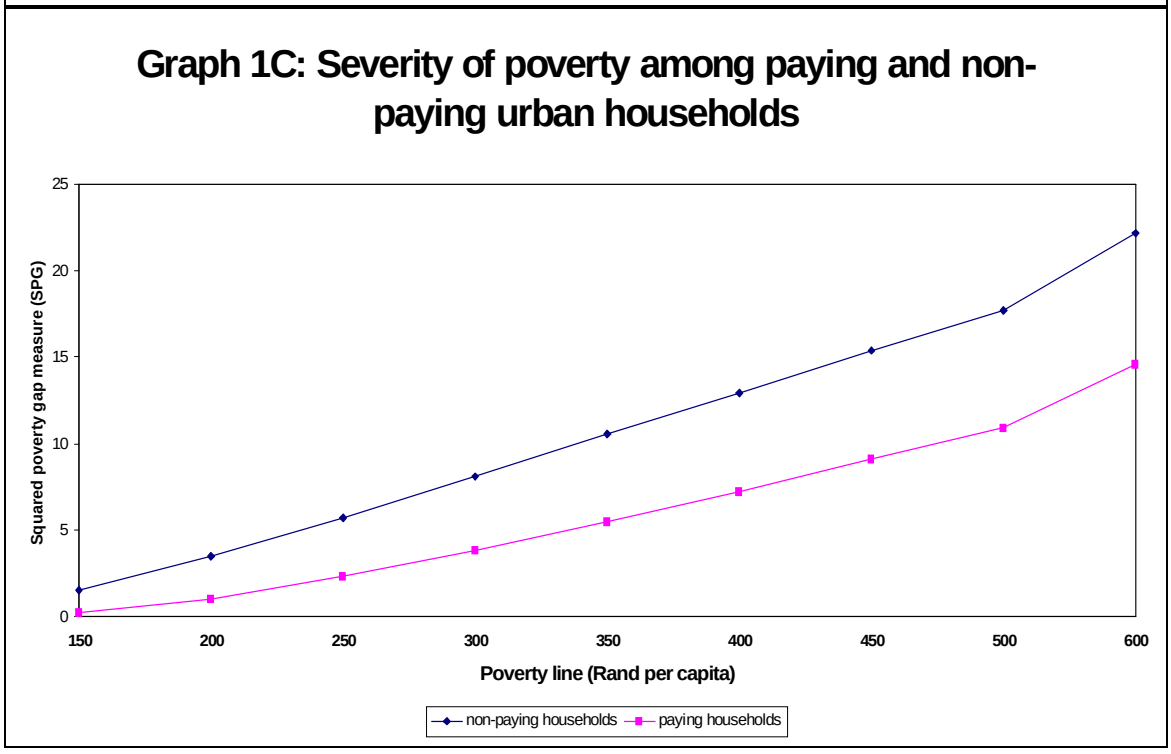
reconsider the unconditional nature of the S-grant. To ensure that the poorest of the poor does indeed benefit from this redistribution of resources, it may be better to implement this grant as a conditional one rather than allowing municipalities discretion with regard to the utilization of these funds. Secondly, the Department of Finance should assess the situation on the ground continuously in collaboration with the Department of Local Government to ensure that the grants and the suggested subsidy are sufficient to afford all those who qualify for some assistance. As mentioned elsewhere (page 33), the question remains as to the capacity of local government to effectively implement and manage indigent policies.

The recipe for success in addressing the problem of non-payment of services therefore lies in a combination of long-term growth-oriented policies with short-term support mechanisms such as indigent policies.

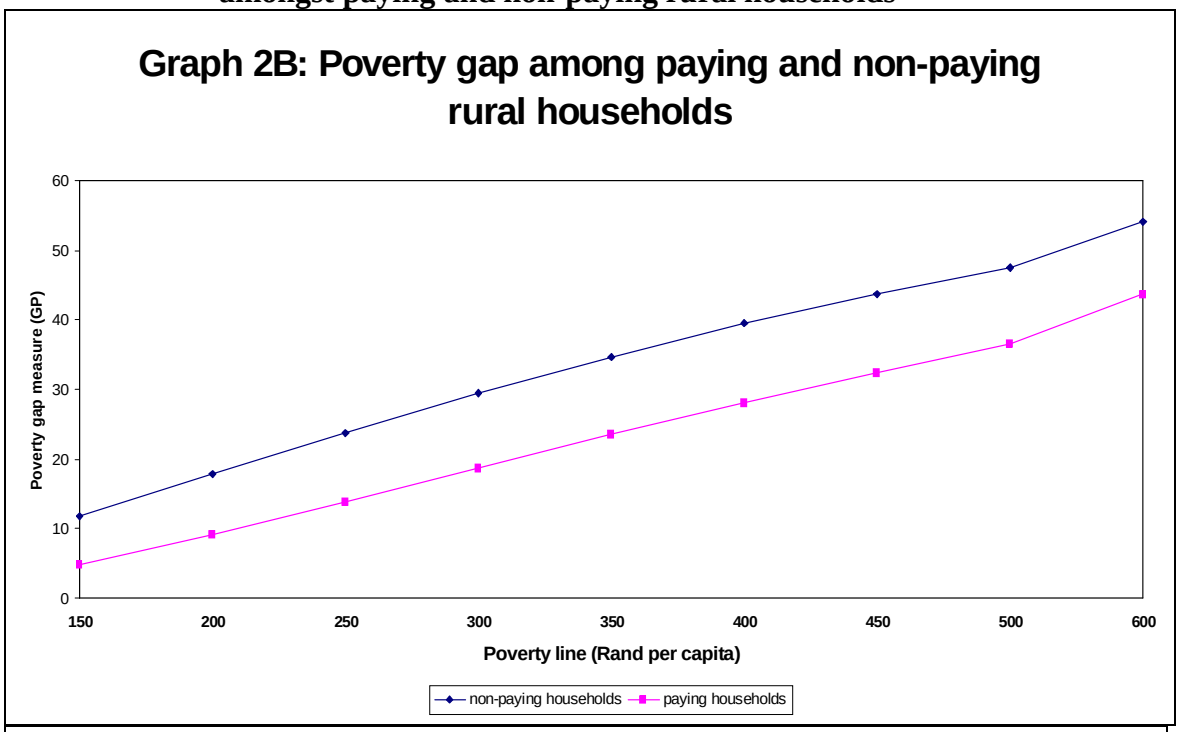
6. Appendix

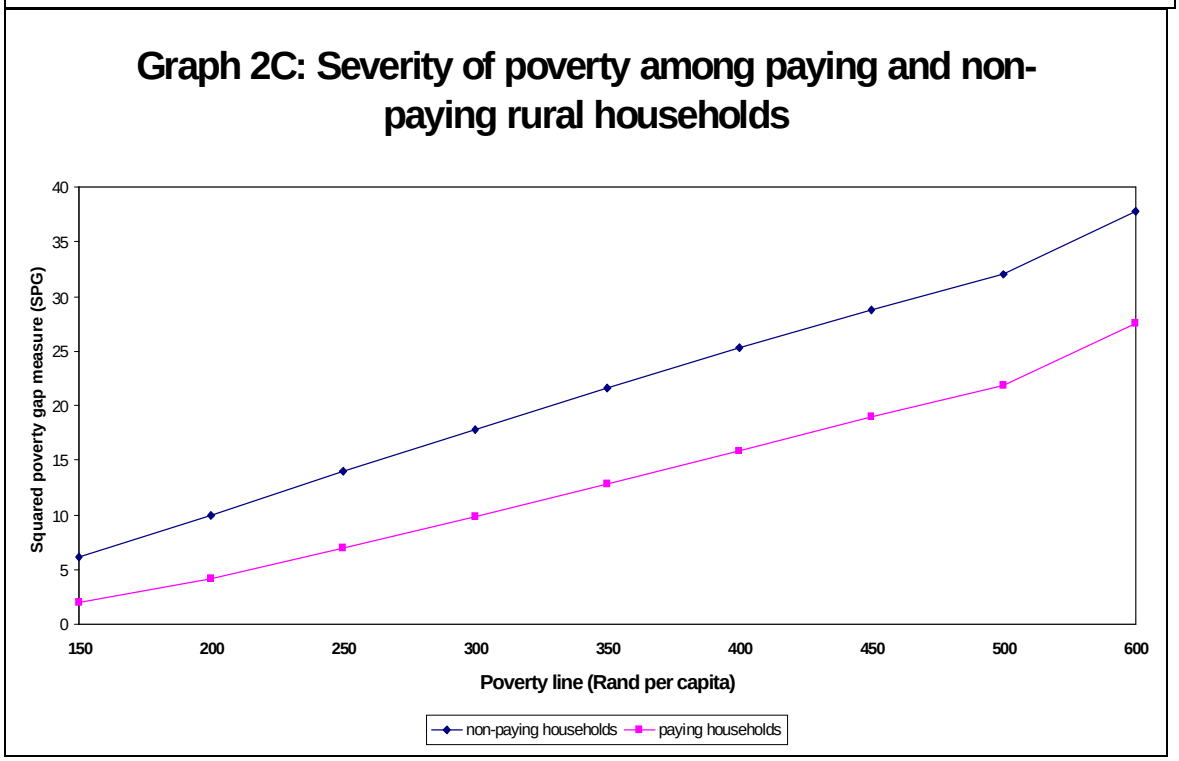
Graphs 1B to 1C: Comparison of expenditure-based estimates of poverty amongst paying and non-paying urban households



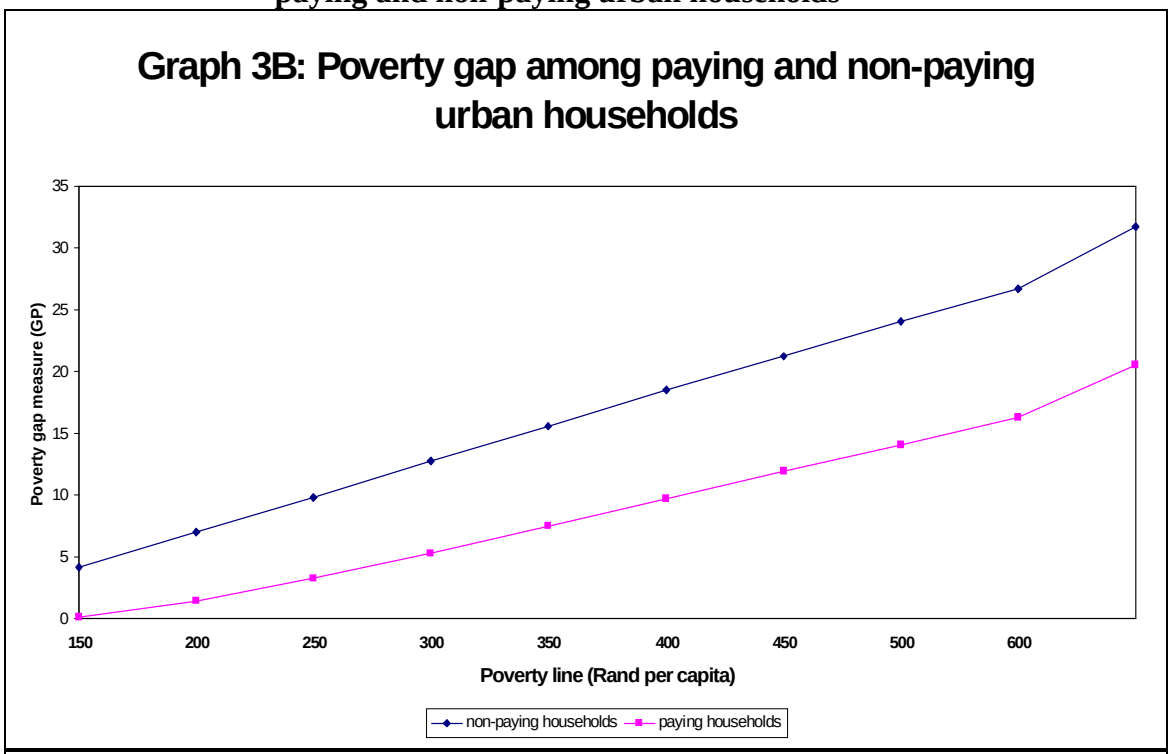


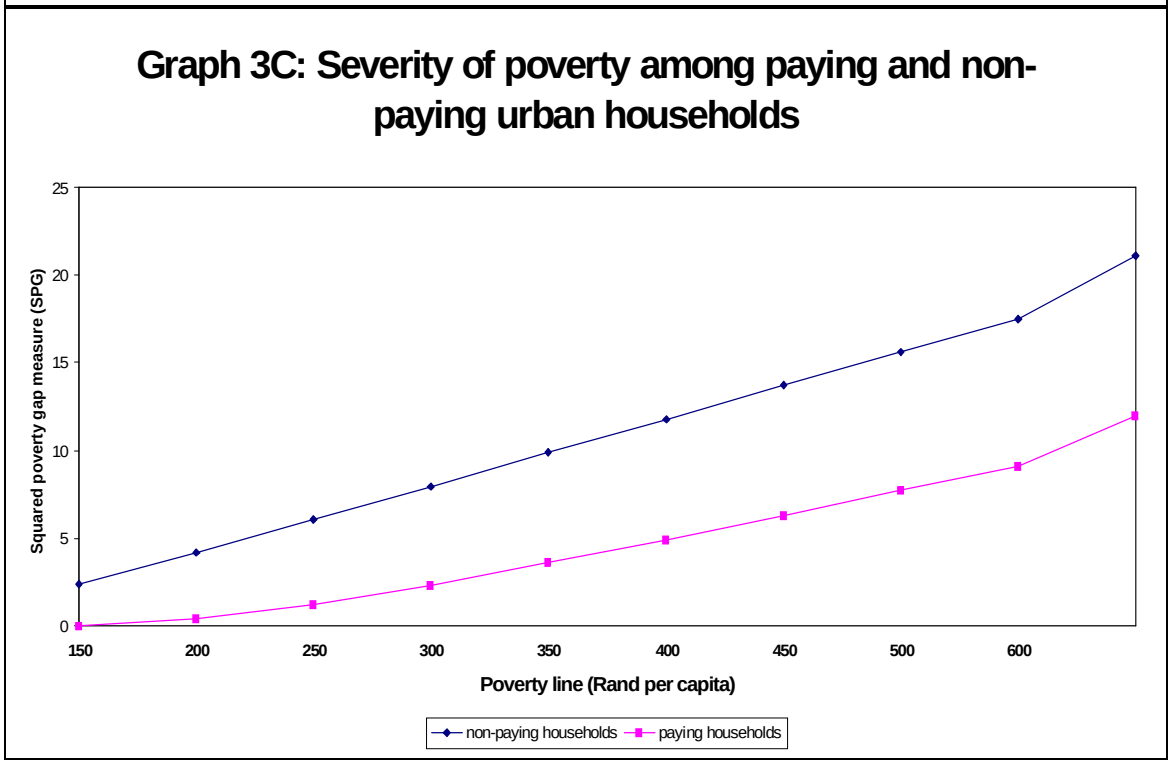
Graphs 2B to 2C: Comparison of expenditure-based estimates of poverty amongst paying and non-paying rural households



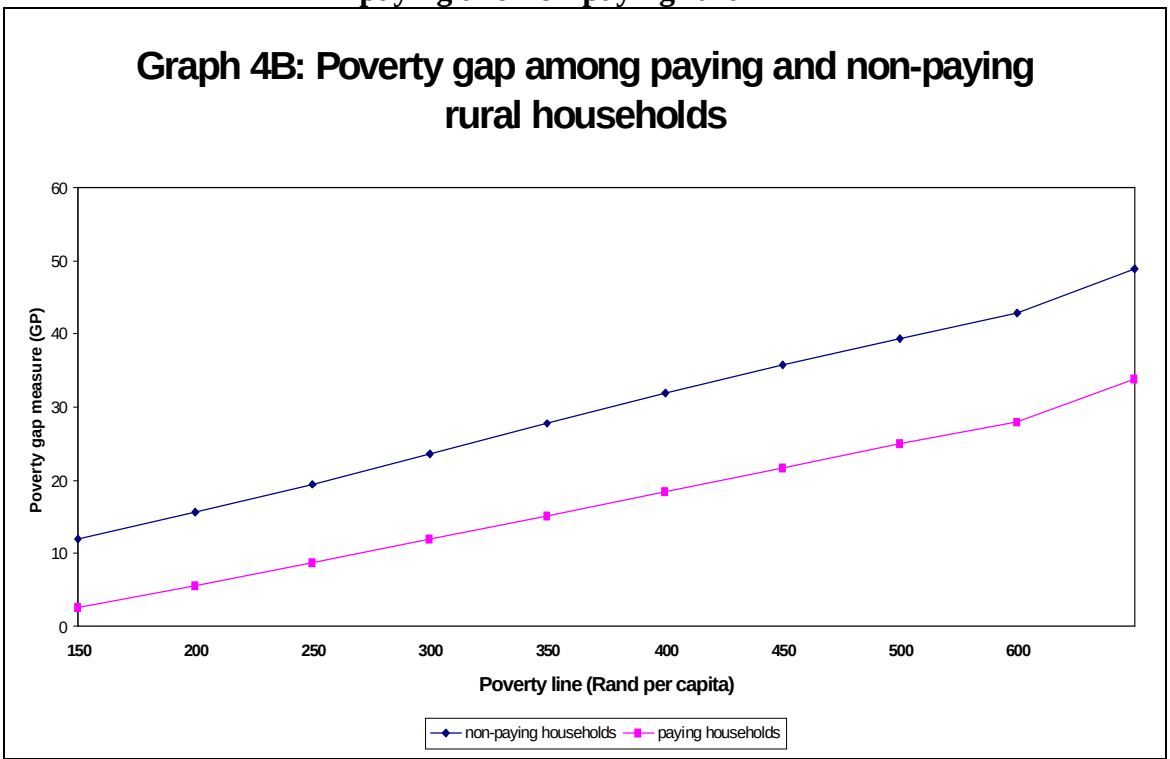


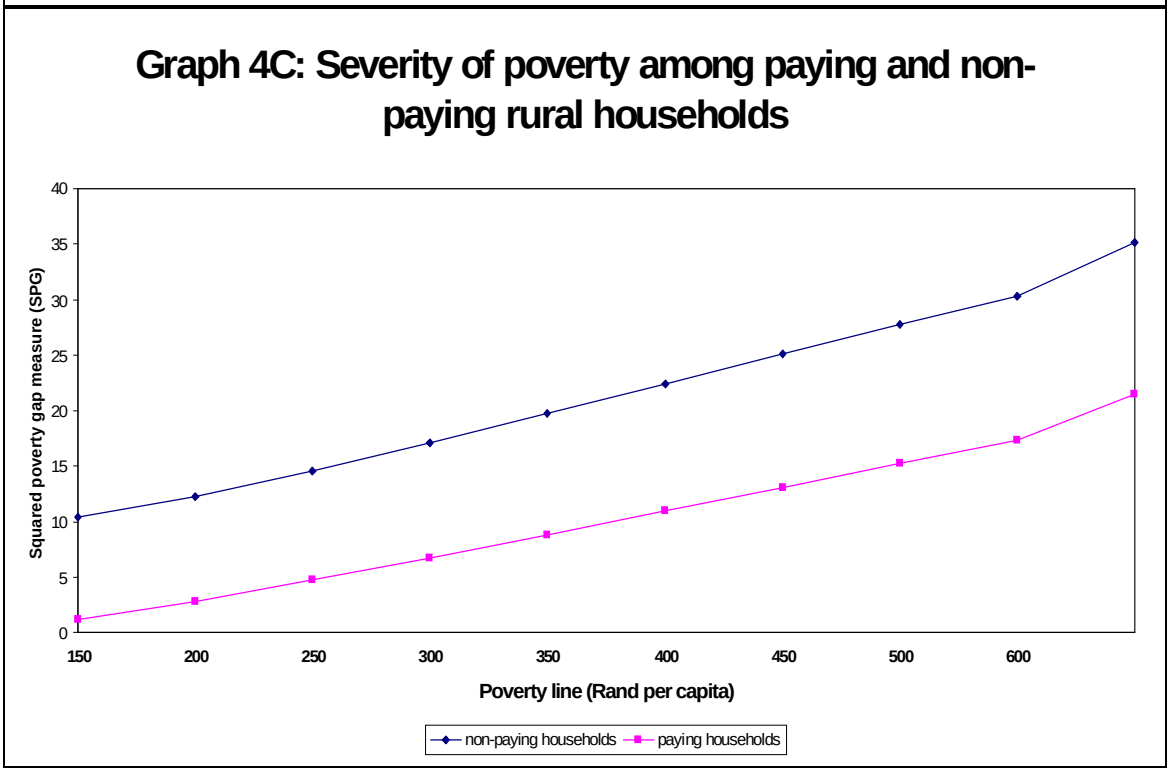
Graphs 3B to 3C: Comparison of income-based estimates of poverty amongst paying and non-paying urban households





Graphs 4B to 4C: Comparison of income-based estimates of poverty amongst paying and non-paying rural





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