

Human and Social Capital in Soweto in 1999

Preliminary report on field study:
Background and descriptive statistics

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ABSTRACT: This paper summarises data that were gathered in a 1,000-household survey done in Soweto in mid-1999. The purpose of the survey was to test some hypotheses on the interrelationships between certain kinds of human capital and of social capital; information was collected on education as well as other forms of human capital, and on a number of social capital factors under the categories of household composition, group membership, values, and various forms of trust. Household expenditure was also explored in detail, both as a proxy for household income and in order to determine current investment in human and social capital.

This paper contains the tabulations of all the information gathered, plus a number of cross-tabulations showing links that are of possible interest. The statistics are adjusted for survey design, thus applicable to Soweto as a whole.

KEYWORDS: Human capital, Social capital

JEL Classification: A13,O15

1 Description of the Study

1.1 Introduction and objectives

This paper documents the results of a household survey carried out in mid-1999 in Soweto, focusing on human capital and social capital factors. It will describe the sampling process and the interviewing stage, and it will aim to provide the basic descriptive statistical data on income, human capital and social capital aspects as collected in the field study.

The purpose of the study is to understand and assess the implications of social and human capital accumulation on income generation in households.¹

Classical economics emphasised capital – accumulated physical and financial wealth - as the engine of the economy. Since then, our definition of capital has expanded to include human capital; and we are in the process of integrating a third tier, comprising the formal and informal relationships and institutional structures that make up human societies, under the term of social capital. The term, however, is still more comfortable to sociologists and political scientists than to economists, probably because of the difficulty in quantifying it. Still, during recent years social capital has begun to be integrated into economic growth and development theories, and into empirical studies. A leadership role has been played in this regard by the World Bank; it produced the first large-scale empirical study of the effect of social capital on income in a developing country setting (rural Tanzania)².

From the point of view of the economist, an important objective of analysing the different forms of human and social capital is to throw light on their influence on economic growth and income distribution, whether directly (generally using macroeconomic tools), or through proxy indicators such as personal income (which allows an analysis at the micro level).

There is an abundance of empirical work, particularly at the macro level, on the relationship between various social, institutional and human capital factors and growth indicators³, mostly in the framework of endogenous growth theory. However, a point is raised by Fedderke and Klitgaard (1998) that indicates the need for further empirical study on a different plane: namely, that the considerable number of institutional and human capital factors identified as potentially playing a role in growth, do so within the framework of what the authors call a “web of associations” among themselves, correlations of various kinds, of various degrees of robustness and with often undetermined causal directions. Thus there is a very real potential for finding spurious associations in such empirical growth studies. It may then be useful at this stage to take a step back from integrated growth studies, and instead to focus in detail on the probable loci of such “webs of associations”, to throw light on the actual micro-level mechanisms by which the different social indicators might influence growth, directly or indirectly.

¹ The field study was financed by the World Bank, on the understanding that some additional questions would be asked that were needed by the World Bank for a poverty and entrepreneurship survey being carried out by them country-wide.

² Narayan and Pritchett (1997).

³ Fedderke (1997) gives a useful summary of this work.

1.2 Conceptual framework and hypotheses

This study intends to develop the “webs of association” approach mentioned above. Four subcategories have been identified, two each for human and for social capital, that may have interesting implications and that have not been extensively studied so far; however, the information collected also allows numerous other subdivisions.

Human capital is divided into two main components, human skills capital and entrepreneurial skills; other elements that can be examined are informally acquired skills, on-the-job experience, and a number of specific aspects of entrepreneurial skills (see below).

Social capital is more difficult to dissect. The conventional distinction between “institutions” (formal organizational structures and legislation) and “social capital” (uncodified societal norms and values, civil society groups and links) does not seem sufficiently useful, and it was decided for the purposes of this study (as it is being done increasingly in new research) to define “social capital” as including both. On a theoretical level, there is still work to be done on a better understanding of its dimensions, e.g. the measure of “embeddedness” after Granovetter and Woolcock, and “rationalisation” as proposed by Fedderke et al.⁴ Some useful practical categories that have been used in the literature will be used, e.g. level of social trust, attitude to risk, participation in associational life, and work/leisure tradeoff rates. However, the main differentiation that it is intended to make follows Fedderke et al.’s concept of low-rationalisation and high-rationalisation social capital⁵.

On the basis of these subcategories, two central hypotheses were formulated, which will be examined at a subsequent stage:

- In addition to operating directly, through lowering transaction costs, social capital also operates, to a significant extent, through human capital: it contributes to the latter’s formation by stimulating investment in it. Equally, human capital has an effect on investment in social capital.
- There may, on the other hand, be a significant substitution effect between some elements of human and social capital. Specifically, it may be that the more traditional forms of social capital (family links, ethnic and religious group links, communitarian values) are negatively correlated with human capital. This hypothesis seems likely among other reasons because the relatively large time investment that such social capital needs, acquires a higher opportunity cost as a higher level of human capital is reached. It may be that in such a situation, *different* forms of social capital are invested in, forms more suited to “modern” economic interaction. Such forms would be economic and professional associations, information networks, and entrepreneurial values. It is proposed to classify the different manifestations of social capital into “low-rationalisation” and “high-rationalisation”, using the word in the sense pioneered

⁴ Granovetter (1985), Woolcock (1998), Fedderke et al. (1999).

⁵ Fedderke et al. (1999). Very briefly, Rationalisation refers to “the degree to which social capital moves from rules and norms that assume substantive content, to rules and norms that are procedural in character.” This innovative definition focuses on the logic behind the rules, distinguishing between the simpler but less flexible substantive rules, and those that focus more “upstream”, closer to the ultimate objectives to be attained – e.g. religious rules on periodic fasting as against modern social norms about healthy eating. Functionally, the rationalization aspect of social capital carries with it the potential of maintaining increasing returns to scale, i.e. delaying the onset of diminishing returns.

by Fedderke et al., 1999. This division is expected to yield additional insights when correlated with human capital indicators.

In an attempt to throw light on the direction of causality of the links, the study has gathered data not only on the *present levels* of these forms of human and social capital, but, in as much detail as possible, on *investment* in their creation/maintenance. The present levels of different categories can then be examined against the levels of investment in other categories, under the assumption that a present decision to invest is more likely to be the consequence than the cause of a present level of a particular element of human/social capital.

1.3 The sampling process

Soweto was chosen as the survey area. Being almost 100% Black⁶, it is an area that is racially as homogeneous as it is possible to obtain in South Africa today, but quite highly diverse in most other respects (income levels, social origins, ethnic groups, education); in particular, it allows an examination of both traditional and modern forms of association and of social capital. It was felt to be important to conduct the study in a racially homogeneous area, since apartheid policies caused significant differences in economic, social and educational conditions among the main racial groups, which would have obscured the human and social capital patterns that it is proposed to study.

It was aimed to capture data from about 1,500 respondents from 1,000 households. The final number was 1,324 respondents from 1,038 households.

The sampling was done on a stratified two-stage cluster basis. The strata were the six main categories of residential areas:⁷

1. Pre-1940 council housing areas, the oldest and presumably containing the most mature communities, which may make a difference as regards social capital.
2. Post-1945 council housing.
3. Council housing built in connection with forced removals.

(Together, these areas account for 78.9% of the population. During the apartheid era with its strict influx control laws, the one-family houses were very frequently overcrowded with extended family members and other, often illegal, residents, to a reported average as high as 12 persons per home. Today, these areas still contain a high number of “backyard shacks” or permanent add-on structures, sub-let or used by extended family members.)

4. Private sector housing (7.6% of the population), of more recent origin and generally associated with higher income categories and younger, more urbanized age groups.
5. Informal settlements and site-and-service areas (9.3% of the population).
6. Workers’ hostels (4.2% of the population), built in the apartheid era for single men working on the mines, now increasingly used by newly urbanized, low-income persons, and also increasingly by families.

The clustering was carried out as follows:

⁶ That is, following the South African racial categories of Black/Coloured/Indian/White. These are relevant to a social capital study because of the cultural, historical and community links among members of the same category.

⁷ This division was based on the Wits Department of Sociology’s “Soweto in Transition” report.

- The primary sampling units were identified with the help of the map drawn up by the Wits “Soweto in Transition” project (Annex). The whole territory was divided into 43 main zones (8 pre-1940, 14 post-1945, 5 forced removals era, 4 private sector, 5 informal settlements, 7 hostels). Out of these 43, 12 were picked on a random basis, stratified into two per category⁸.
- On a second level of clustering, 3 clusters⁹ of 25 sites were picked from each primary cluster, giving a total of 36 clusters, by means of the following system:

- *Council and private housing zones*: using a large-scale map, three blocks were picked at random, and an area of suitable size (150-200 sites) was marked off around each on the basis of some unifying characteristics (e.g. common spatial arrangement, common services, common language). Within each of them, a starting site was picked at random and every 5th to 7th site (depending on the size of the area marked off) interviewed from there, up to a total of 25. (Specific alternate sites were assigned to each chosen site, to cater for cases of absence or refusal.) Where there was more than one household living on a site, the interviewer was trained to choose one by means of a list of random numbers.

- *Informal settlements*: in each zone, three starting points were established at random, and each fourth dwelling interviewed from there, forming a total of six clusters of 25 for the two areas.

- *Hostels*: the interviewers were given random number tables, and instructed to choose three blocks by random, then choose a starting bed number in each block also by random, and interview the occupant of every second bed, for a total of three clusters per hostel.

In the middle of the interviewing process, it was realized that this clustering method would result in excessively wide differences in weighting between the six different strata. It was then decided to drop 9 yet unsurveyed clusters in housing types 4,5,6 (private, informal, hostels); instead, a second random pick of 12 was made from the primary units of housing types 1,2 and 3.¹⁰ One cluster of 25 was then picked from each area, with the same method as above.

Thus, in the end, 38 clusters¹¹ were interviewed: 5 in Moroka, 4 each in Orlando East and Meadowlands, 3 each in Jabavu and Chiavelo, 2 each in Protea North, Diepkloof Ext., Motsoaledi and Diepkloof, and 1 each in Molapo, Zondi, Naledi, Klipspruit, Jabulani, Moletsane, Zola, Orlando West, the informal settlement south of Orlando East, Lifateng hostel and Jabulani hostel. In addition, there are 130 questionnaires, obtained in the course of the pilot survey and the “training period” of each interviewer, which were not obtained from the clusters defined with the system above. These are included in the total sample with another identifying zone code.¹²

⁸ The zones thus chosen were: Orlando East, Jabavu (pre-1945); Moroka, Chiavelo (post-1945); Diepkloof, Meadowlands (forced removals); Diepkloof ext., Protea North (private sector housing); south of Orlando East, Motsoaledi (informal settlements); Jabulani and Lifateng hostels.

⁹ The number of clusters was relatively low in order to have larger numbers of units in one cluster, to capture possible neighbourhood-based social capital aspects.

¹⁰ The 9 clusters dropped were in Diepkloof ext., Protea North, 2 x Orlando E informal settlement, IS Motsoaledi, 2 x Jabulani hostel, 2 x Lifateng hostel. The 12 new areas picked were: 2 x Moroka, Meadowlands, Orlando East, Molapo, Zondi, Naledi, Klipspruit, Jabulani, Moletsane, Zola, Orlando West.

¹¹ One cluster in Diepkloof (forced removals area) was lost and not redone, thus the final figure of 38 clusters instead of 39.

¹² A few clusters were not completed, and a few questionnaires had to be discarded, thus the final size of the sample is 1,038 households instead of 1,080.

Sampling questions at household level: interviewers were told to interview any one household member over 18 present, not necessarily the head of the household. In addition, they were asked to interview a second adult household member if there was one available, trying on an average to get an additional respondent in every third household. In fact, there resulted a sample of 1,038 households and 276 additional respondents, for a total of 1,335 individual questionnaires. Lastly, from among individual respondents who had given their activity as “self-employed or informal business”, interviewers were asked to complete an additional questionnaire, for a total of about one such additional questionnaire for every five main questionnaires. (That is, they were not asked to administer the additional questionnaire necessarily to *every* self-employed respondent.)

1.4 The survey instrument.

The questionnaire was designed in three parts. The first gathered basic demographic, education and expenditure data on the entire household; the second gathered more detailed data on the human and social capital of the individual respondent; the third part, focusing on entrepreneurial skills and attitudes, was administered only to self-employed and informally employed adult respondents who had completed the second part. In the end, 1,335 individual questionnaires belonging to 1,038 households were returned, as well as 276 additional questionnaires on self-employment.

The design of the instrument was partly inspired by the World Bank’s Tanzania Social Capital study (Narayan and Pritchett 1997). Three other studies were extensively drawn upon, namely Mears, Levine and Pieterse (1993a and b); the “Soweto in Transition” study by the Wits Department of Sociology (1997); and Rwigema and Karungu (1999) for the entrepreneurship aspects.

1.5 The interviewing process.

The assistance of the Department of Economics at Vista University, Soweto, was sought, since their students are mostly from Soweto, thus at considerable advantage for such survey work.

A pilot study of about 25 households was conducted during June 1999, by four students, who then assisted in training the 27 interviewers of the main survey. The latter underwent two half-day training sessions, after which they had to fill in five questionnaires from among their families and neighbours. (These are the 130 questionnaires referred to above, that are not from the designated areas). These five returns were checked and problems discussed individually with each interviewer; frequent mistakes were discussed in a further plenary session. The interviewers were also given a three-page set of written instructions. They worked in their own time, but they were told to do the bulk of their work in the evenings and during weekends, so that those with full-time activities outside home should not be underrepresented among respondents. This objective seems to have been reached, since persons in full-time employment, who constitute 33% of all household members over 18, make up 31% of respondents.

All returns were checked by the author or by a senior staff member of Vista university. Occasionally an interviewer was told to redo some interviews. At the end, about one-tenth of the questionnaires were re-surveyed, by two students chosen from among the best interviewers. On the basis of their findings, two batches of 25 questionnaires were re-done.

1.6 Presentation of the Data Set.

The Community Agency for Social Enquiry (CASE) (Johannesburg) undertook the coding (separate coding sheets were filled in) and inputting of the results. CASE used its own professional coders, then subcontracted the inputting; both activities were monitored by professional supervisors and appropriate quality control measures taken. A small number of apparent coding or inputting errors were discovered in the course of data analysis, but they could be corrected by referring back to the original questionnaires, which remain available.

The raw data was converted to a single STATA file of 2076 observations by 343 variables, from which further datasets are constructed. (The number of observations in the original dataset is double the number of questionnaires, because each questionnaire was inputted twice in order to leave room for additional Part 2s.) Data analysis was undertaken with the use of STATA and EXCEL.

2 Exploratory Data Analysis

The remainder of this preliminary report will contain a descriptive report of the responses to the questionnaire. It has been decided to include in this overall descriptive analysis, all the data gathered at the request of the World Bank (see footnote 1) which are not directly related to the core hypotheses of the study.

As mentioned before, respondents filled in Part 1 on behalf of their household, and Part 2 on their own behalf; in a number of cases when an additional adult was present and was willing to be interviewed, s/he was administered an additional Part 2. Thus the survey includes a total of 1,038 Part 1's and 1,335 Part 2's, 300 of which are additional individual respondents within the same household as a previous respondent. There are 276 observations that extend to Part 3 (entrepreneurship); however 48 Part 3's were administered to persons who had not filled in the second part, thus they cannot be correlated with individual information on human and social capital; leaving 229.

For most of the analysis, however, the 130 questionnaires done during the pilot and training phase of the interviewers, are being excluded, since these respondents were not chosen by the same random methodology as the rest. Subtracting these, the final sample used for most of the analysis is: 908 Part 1's, 1186 Part 2's (278 being additional individual respondents in the same household); 200 Part 3's (entrepreneurship).

Whenever the full number of questionnaires is used in a description, it will be specified, and when unweighted results are given (either because weighting is irrelevant, or meaningless because of insufficient observations per cluster), they will also be specified.

Data are weighted and corrected for the effects of stratification and clustering. There are 6 strata, with 2 to 8 primary sampling units (PSU)s each, for a total of 20 PSUs (plus a 7th stratum with a 21st PSU containing the 130 non-random questionnaires, which are excluded from most of the analyses); each PSU has 1 to 5 clusters, identified by a separate variable. The probability weights were calculated by multiplying the weight of a household within a PSU (using the 1996 census data) by the weight of each PSU. Finite population corrections have been applied.

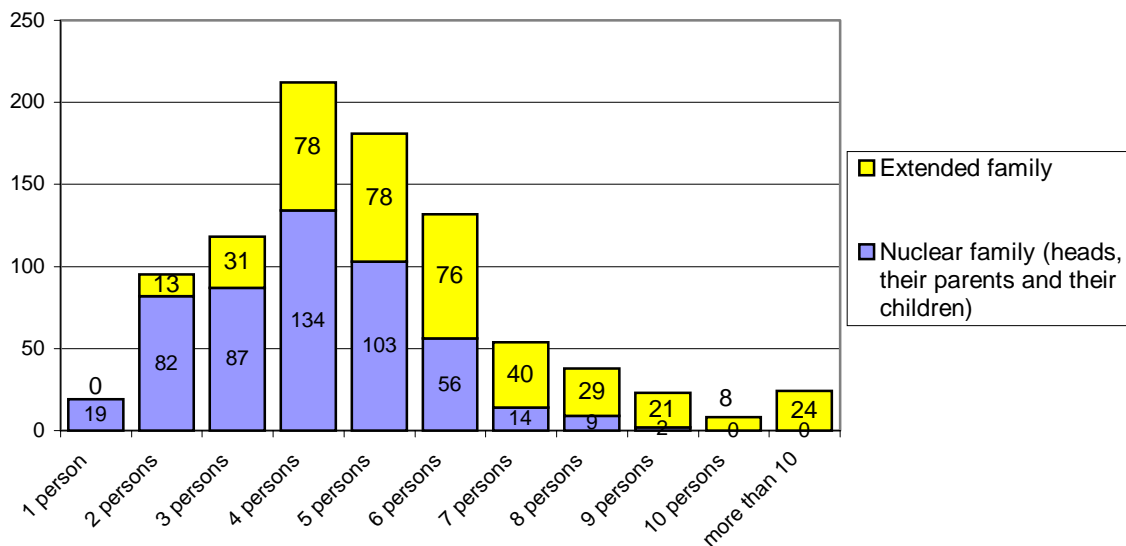
[Note: in most tabulations, the total number of responses will come to slightly less than the numbers mentioned here above. This is because almost every question met with a few non-responses. This fact will not be commented on again, except when the number of missing responses is of particular significance.]

2.1 Basic demographic data (from Part 1 of questionnaire, referring to all household members)

A. Household size and structure.

The total number of persons listed was 4385 in 908 households, resulting in a mean household size of 4.83. It should be noted that 12th and subsequent household members were not counted, since earlier studies¹³ show that only 2.1% of households count more than 11 members, and the 12th and subsequent household members are almost invariably small children. Full results are shown in Figure 1.

Figure 1: Household Size



Note that a non-standard definition of a nuclear family has been adopted for this survey: it includes three-generation families, if the middle generation is the head of the household, i.e. aged persons living in their adult children's households do not make an extended family. This was felt to be more appropriate to the African culture, and to a situation where pensions are low and old people's homes are rare. However, grandparents living with their grandchildren with the middle generation absent, are not considered nuclear families. This configuration accounts for about 3% of all households).

Figure 1 shows that there is a preponderance of nuclear households in the sample, obviously the more so, the smaller the household size. In fact, of the 908 households surveyed, 398, or 44%, are extended (non-nuclear) households, in the sense that they have at least one member who is not part of the nuclear family (parents-children of the head/s), but of the extended family (grandparents, grandchildren, in-laws, siblings or more distant relatives

¹³ Mears and Levine, 1994.

of the head/s) or unrelated (9 households). There are 82 households (9% of the total) with no nuclear family members (that is, no children or parents of the heads of the household), but only extended-family relationships.

4385 members of the households surveyed, 1416 (32%) were listed as heads of the household¹⁴; 2022 (46%) were either the children or the parents of the head/s. 933 (21%) were extended family members, being the heads' grandparents, grandchildren, siblings or in-laws; only 14 persons were reported as unrelated to the head/s of the household.

The number of non-nuclear family members per non-nuclear household increases, of course, with overall household size. Although the mean is 2.34 non-nuclear family members per non-nuclear household, the modal number is one non-nuclear family member (143 households), and the median is lower than the mean, approximately 1.5. This indicates that households in Soweto are nuclear-family-based, with extended family members included individually as necessary, probably on the basis of financial need or other forms of mutual help. On the other hand, the number of adult children living in the same household, with their parents still being the household heads, is relatively high, an indication of nuclear-family solidarity, probably in the face of financial difficulties.

509 households (56%) were headed by a couple (married or not). The number of single-headed households was 384 (42%), of which 101 (26%) by a male and 283 (74%) by a female. (The missing 2% are households where no head was indicated).

It may be worth reminding at this stage that the units being analysed are not *sites*, but *households*, defined as “a group of people who live together and ‘eat out of the same pot’”. Where there was more than one household living on a site, through subrental or any other arrangement, the interviewers were trained to recognize this. In this context, it is interesting to notice from the above data that households, i.e. groups ‘eating out of the same pot’, are very strongly family-based, even when there are other groups living on the same site. These data are an indication of one aspect of “traditional” social capital, i.e. family links.

The composition of *non-nuclear* households shows the following characteristics:

- firstly, it is strongly kinship-based, as evidenced by the very low numbers of unrelated persons living in the same household;
- secondly, it appears functionally based, representing a family support system for (a) persons in full-time education, (b) unemployed family members, whether nuclear or extended. This is shown by the table below, which cross-tabulates activity against status in the household (persons over 18 only);
- thirdly, the mean age of extended family members is significantly lower (at the 10% LS) than that of nuclear family members, 18 years as against 22.

¹⁴ Interviewers were instructed not to differentiate between the two partners when a household was headed by a couple, i.e. to describe them both as heads of the household.

Table 1: Activity, by status within household (persons over 18)

Activity	Total	Male heads of household	All heads of household	Nuclear family members	Extended family members
Full-time education	14%	1%	1%	27%	27%
Employed full-time	32%	58%	43%	24%	17%
Employed part-time	6%	4%	4%	8%	7%
Self-employed	11%	15%	15%	7%	7%
Unemployed	23%	9%	12%	29%	33%
Pensioner	10%	12%	17%	2%	6%

(All rows show significant differences between the heads of household and the others.)

On the whole, the household structure indicated by this survey gives a picture of a society in transition, i.e. no longer a traditional society with a preponderance of large extended family groups. There is no evidence of a tendency for extended families to live together for other reasons than economic necessity – or, considering the 3% of families with the middle generation missing, possibly already showing the effect of the AIDS epidemic. However, it must be remembered again that the definition used in this study for a “nuclear” family is itself non-standard, since it includes three-generation families.

B. Characteristics of household members

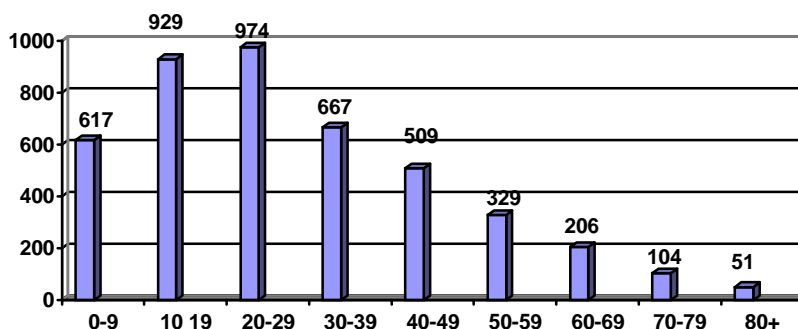
Figure 2: Age distribution

Figure 2 above shows a distinct narrowing of the population pyramid for persons under 20. This finding is confirmed by previous studies¹⁵: it is partly due to a decline in the birth rate during the past 15 years. Some underreporting of small children is also usually assumed in surveys of this kind, and the unreported 12th and subsequent household members (possibly about 2%, or 100 persons) are also likely to be small children¹⁶.

In addition, there are still many households with rural and other outside links, who tend to leave their children in rural areas while they are of school age. This survey confirms that fact. A total of 146 children under 18 of the heads of the households, are reported to live outside Gauteng – 59 under 10 and 87 aged 10-18. (A further 52 live elsewhere in Gauteng).

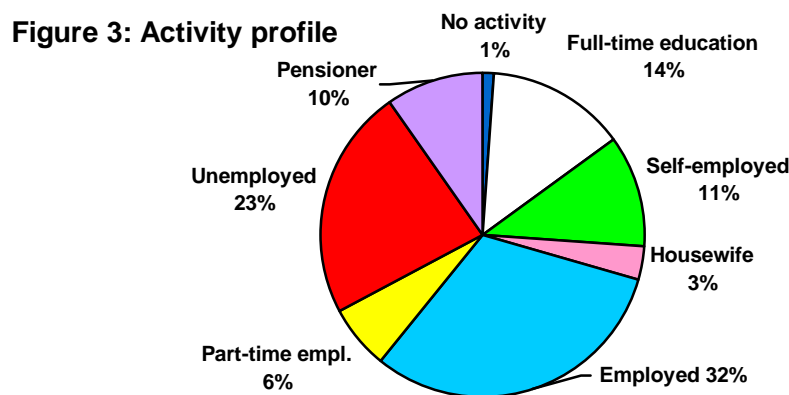
¹⁵ See e.g. Mears and Levin (1994), Soweto in transition project (1997).

¹⁶ Mears and Levin (1994).

The mean age is found to be 29.4 years; the median age, just over 25.

Activities of household members: these are summarized in Figure 3 below.

Figure 3: Activity Profile



It should be emphasized that this figure shows the activities of *adults only*, that is, all household members aged 18 and over. Some comments on the distribution:

- Note the percentage of those reported to be in full-time education, 14% of those over 18. (A number of these may still be in school, given the high number of failures and late starts in the South African school system. For the over-20 age group, the percentage in full-time education drops to 7%.) It should be noted that 71% of respondents who defined their main activity as full-time education, also reported spending more than 30 hours a week working for money.
- The percentage of self-employed is higher than that found in most comparable studies¹⁷, and that of the unemployed is lower¹⁸. This is partly due to a deliberate slant in this survey: the interviewers were instructed to probe all those who were defined as unemployed, to see whether they were exercising a money-making activity to tide them over or fill in their time while looking for work. These were reclassified as self-employed. The definition of self-employed and of the unemployed in this study are thus non-standard. This was done for the purpose of better capturing the class of small entrepreneurs in Soweto, of whom it is generally supposed – and this study supports the supposition, as will be seen later – that many would prefer fixed employment, and consider themselves unemployed rather than small entrepreneurs.
- These figures match very closely those of the 1995 census. The latter reports 30% employed, 12% in full-time education, 2% homemakers, 8% pensioners and disabled; the other categories used are different from those of this survey but no discrepancy is apparent.

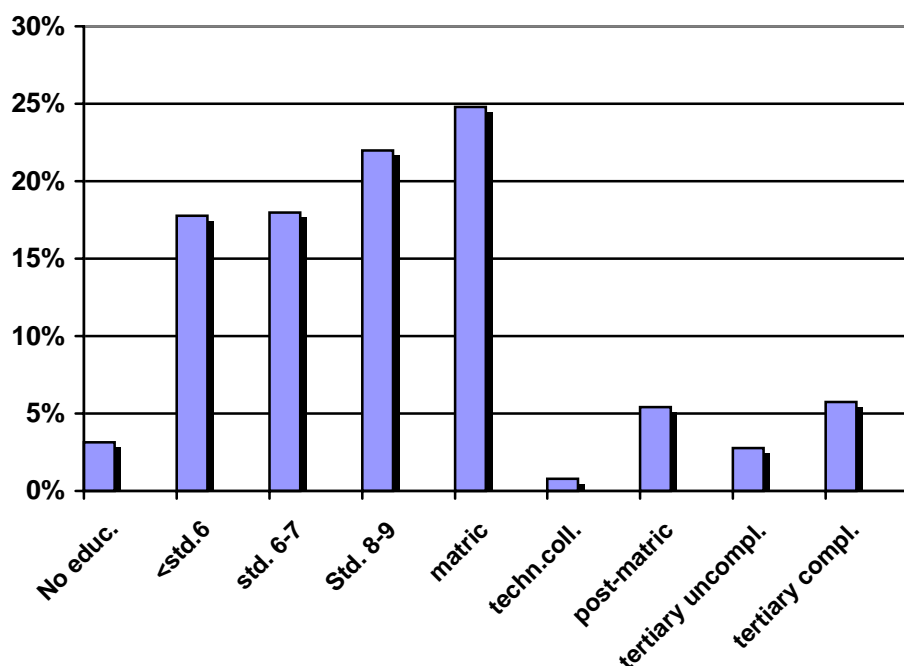
¹⁷ E.g. Mears and Levin (1997) show 4.6%; the Soweto in Transition report, 3.3%, of self-employed.

¹⁸ The same two studies show population unemployment rates of 31% and 32% respectively.

- As mentioned above, the above figure refers to persons over 18. It should be noted that, of the 1082 household members aged under 18, only four (all belonging to the same family) were described as self-employed, and three listed as employed (one full, two part-time.) This is factually improbable, but it is an interesting indication of attitudes, i.e. that people in Soweto seem unwilling to acknowledge the reality of child labour and the informal economic activities of children.

The educational levels of all household members aged 20 and over, are given in Figure 4 below. One notes particularly, the very low number of persons with technical college diplomas, i.e. vocational training at sub-Matric level (“Matric” – matriculation – is the South African equivalent of a high school certificate.) This characteristic is typical for South Africa, and derives from the history of the educational and training system for the Black population. Since the White population was channeled predominantly towards Matric, those Blacks who were able to continue their education, were strongly influenced by the same aspiration. At the same time, vocational education as an alternative to high school was institutionally underdeveloped, replaced largely by internal training programmes within the large companies. In today’s terms, this is in fact an anomaly for an economy like South Africa’s. It may be a priority matter for educational and employment policy.

Figure 4: Educational levels of adults

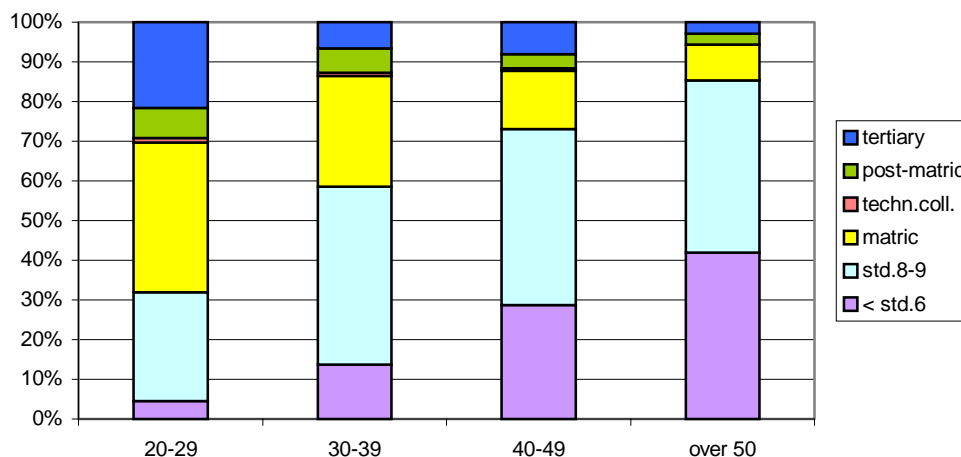


Note that in the past, Standard 6 and Standard 8 were traditional “stopping points” in education. “Post-matric” means short technical or clerical training courses, while “tertiary” includes university and technikon studies.

It should be noted that, since the data are based on a personal survey, there may be (1) some overreporting of one's (and the family's) educational levels; (2) there is no check on the validity of the qualifications, i.e. a number of them could be from non-accredited institutions.¹⁹

The educational level is substantially higher in the younger age cohorts. The percentage of those with less than Standard 6 declines from 43% among the over-50%, to 5% among the 20-29 group; of those with Matric or higher, it goes up from 15% to 66%. These differences in age cohorts are shown in Figure 5 below.

Figure 5: Schooling levels by age cohort.



A comparison with the 1995 census figures show a clear increase in the educational levels. The percentage of matriculants is 6% higher, and the other non-minimum categories (except for vocational diplomas, which have decreased by 0.2%) show increases of 1%-3%.

Close family members living away from the household: Information was sought about close family members (non-divorced spouses and own children under 18 of the heads of the household) living away from the household. A total of 24% of households reported having such links, and of these, 56% - i.e. 13% of the total – report having family members in rural areas. This matches well the data reported in the Soweto in transition study, where only rural-based family members were captured, and the percentage of households with such links was found to be 15.8% in 1996. The small decrease might be evidence of a long-term urbanization trend.

Unsurprisingly, by far the highest percentage of persons with family living elsewhere (68%) is among hostel dwellers, since these places are used by migrant, newly arrived or otherwise unsettled persons. One third of these split households include a spouse living elsewhere (58% in urban and 41% in rural areas) the other two-thirds have some of their children living elsewhere (39% in urban and 61% in rural areas.)

The percentage of households with family members living elsewhere is significantly higher among those living in the 1950-60's forced removals zones (31%). On the other hand, the percentage among informal settlement dwellers is not significantly different from other residential zones (old council housing, private housing).

¹⁹ Thanks to my development economics class for alerting me to the latter point.

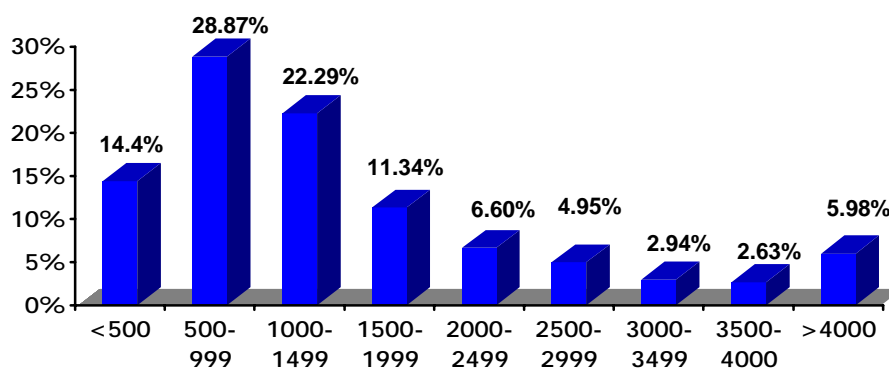
C. Household assets and expenditure patterns.

Although respondents were asked to indicate their household's monthly income, it was realized that this is a notoriously difficult piece of information to obtain. As expected, the question about income did not yield useful results: only 20% of respondents answered it. Instrument design had anticipated this standard problem, and therefore it incorporated detailed questions about expenditure patterns and household assets, to serve as proxies for income. These were answered much more satisfactorily, with only two households declining to give any information at all; although as expected, there was some incompleteness and improbability in the answers.

Household expenditure: Respondents were asked about their monthly expenditures on rent, maintenance and services, food, transport, clothing, entertainment, remittances to family, contributions to charity/community groups, and other expenses; and about their annual expenditures on education, travel, repairs/maintenance, major purchases and other items. Most of these items are used only to obtain a figure for of total expenses, to use as a proxy for income. However, expenses on education, remittances to family and contributions to the community represent investments in human and social capital, and will be examined separately later.

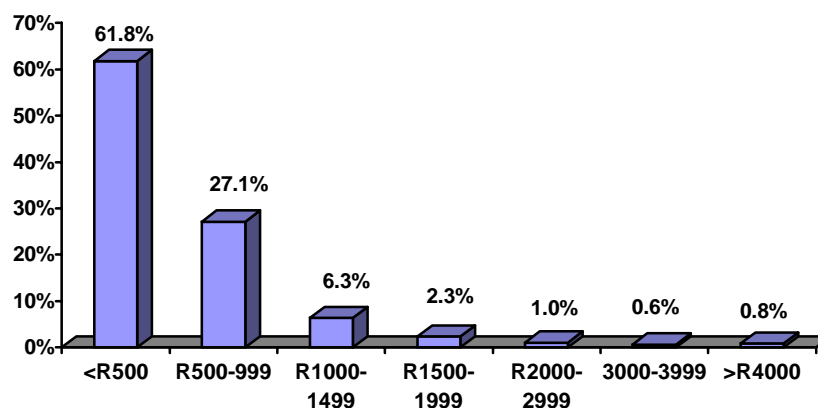
Monthly and annual expenditures, when summed up and expressed as average monthly expenses, yield the results shown in Figures 6a and b below. The sample median expenditure is found to be R 1,179, with a standard deviation of R2,592; the survey-adjusted mean monthly expenditure is R1,689 (standard error R 175).

Figure 6a: Monthly Household Expenditure



The data of Figure 6a was used to obtain the per capita household expenditure patterns, by dividing by the number of household members. The result is shown in Figure 6b below.

Figure 6b: Monthly household expenditure per capita.



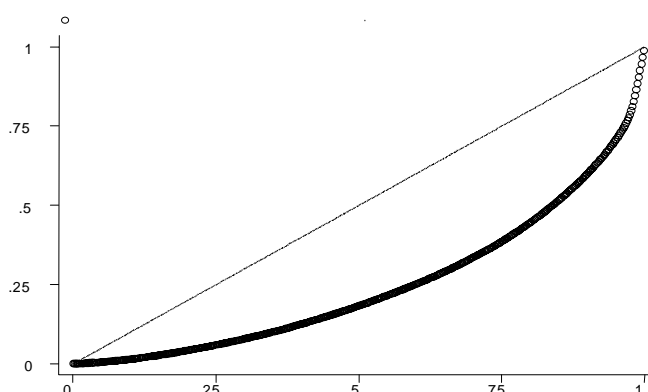
Measures of inequality: A Lorenz curve and Gini coefficient were calculated on per household expenditure.

The Lorenz curve is reproduced in Figure 7 below. It shows a marked rightward shift, consistent with an economy where there is relative equality among the lower-income majority and a sharp differentiation at the top end of the income scale. This rightwards shift is similar to that found in the majority of developing countries.

The correspondent Gini coefficient is 51.3. This means that Soweto has a level of inequality well below the South African figure of 58.4, but still very high in world terms: only 14 countries out of 90 have higher Gini coefficients than Soweto²⁰. The percentage share in expenditure of the top 10% of the sample households is 40.3%: this figure is again lower than that for South Africa as a whole (47.3%), and leaves Soweto in exactly the same rank globally as its Gini coefficient, 15th out of 90. (South Africa as a whole is in 5th place as regards its Gini coefficient, and in 3rd place as regards the share of the top 10% of the population.)

²⁰ The South African and world data in this paragraph are drawn from the World Development Report 1998/99; they refer to 1993 figures.

Figure 7: Lorenz curve for sample household expenditure
(cumulative share of total expenditure – on Y axis - by cumulative share of households – on X axis)

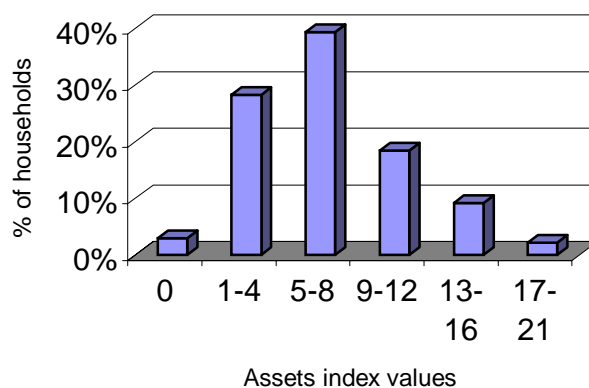


Basic household assets: As a third alternative indicator of household income, data were obtained about *basic household assets*. Of all households, 28% reported owning a car or a motorcycle, and 14% a minibus, truck or bakkie; 44% had a sewing machine or some other power tool; 84% had a fridge, 65% a telephone and 94% a radio or TV. 8.2% answered affirmatively when asked whether they own a computer used for work or study as well as for games; and 2.4% have access to email or the Internet.

These data were combined into a single assets index, using the following weights (adapted from the World Bank Tanzania study): car/motorcycle 4, minibus/truck 4, sewing machine or tool 2, telephone 2, radio 1, fridge 2, computer 4, Email access 2. A number of different weight combinations were tried, and this one was chosen as the one with the highest correlation coefficient with household expenditure (.54), and the highest Cronbach's alpha value together with household income and household expenditure (.74).

The distribution of the assets index is shown in Figure 8:

Figure 8: Household assets index



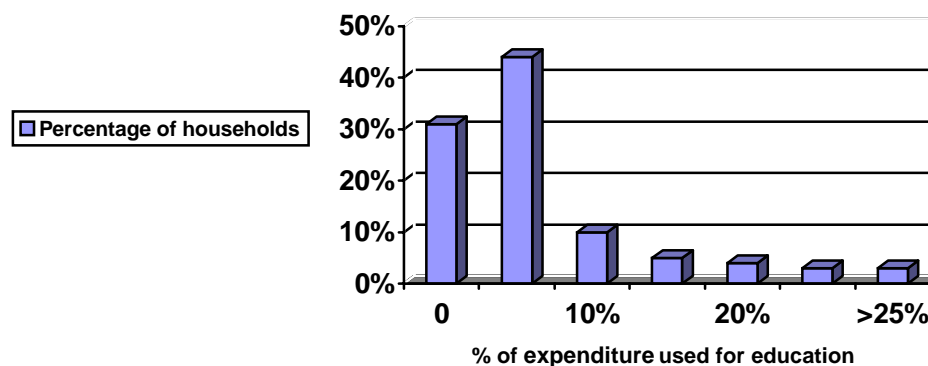
2.2 Human capital indicators

(from Part 2 of the questionnaire, filled in by individual respondents).

- **Educational levels.** The basic human capital indicator, educational levels of adults, is summarized in **Figures 4 and 5** under Section I above.
- **Household expenditure on education.** One further human capital indicator, which will be used at later stages in this study, was recorded at the entire household level: annual expenditures on education and training. 31% of households reported no education/schooling expenditures (no confident distinction can be made between genuine negative responses and simple missing answers). 45% (of the total sample) spend R 1,000 per year or less on education and training; 20% between R 1,000 and R 5,000; and 3% between R 5,000 and R 10,000. A further 1% indicated expenditure over R 10,000 per year on education and training.

In Figure 9 below, household expenditure on schooling and education is expressed as a percentage of total household expenditure. (The X-axis categories are labeled by the highest value in that class, i.e. 20% means higher than 15% and up to 20%).

Figure 9: Percentage of household expenditure used for schooling



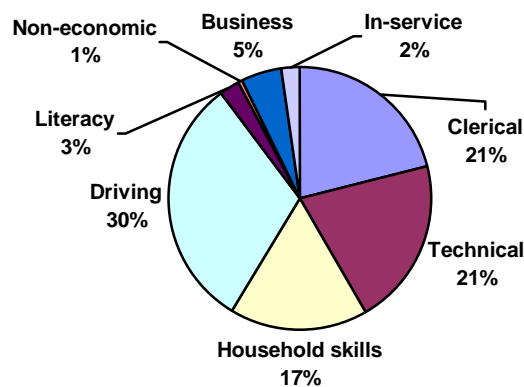
It should be noted that, for household expenditures (=incomes) under R2,000 per month, there is a small but statistically significant correlation ($R=.17$) between total expenditure (i.e. income) and the percentage of expenditure used for education, suggesting that the income elasticity of demand for education is above unit *for low-income households only*. For higher-income households, there is no correlation.

- **Additional training.** Respondents were asked to list up to four training courses (in addition to their school and vocational/professional training) that they had taken in their lifetime. On the basis of the sample of 1,186 individual respondents, it appears that 63% of adults living in Soweto have taken at least one such extra course, 14% at least two, 1.5% a third course and 2 persons a fourth course.

The 1114 courses mentioned can be divided into 8 categories: adult literacy or night school; technical skills courses (e.g. bricklaying, hairdressing, mechanics); clerical courses (typing, computer skills etc.); in-service courses of any kind; household-related skills (cooking, sewing etc.); business skills (setting up a business, small business

accounting, marketing etc.); driving; and normally non-economic skills (art, sports, military) which the respondent uses for profit. The percentage of each category, out of the total of courses taken, can be summarized as follows:

Figure 10: additional training courses taken (persons over 20)



An attempt was made to quantify, in terms of hours, the time that respondents had spent through their lives on such additional training, although the responses must be considered approximate. On the basis of the survey, it appears that 56% of persons over 18 have received some additional training: 24% have totaled less than 160 hours (one month), 20% between one and three months, and 8% between three months and one year. The remaining 4% have had more than a total of one year's additional training courses. (Respondents were asked to give the time in hours, and these were converted at the rate of 40 hours=one week and 1,600 hours= one year.)

The costs of these training courses were also surveyed. However, it is obvious that a large number of responses regarding costs of courses taken before 1990 are not reliable, thus it is proposed to drop these costs from the analysis altogether. The respondents who have been taking courses since 1994, reported paying an average of about R23 per hour for courses shorter than 6 months. The cost per hour of longer courses appears to be under R3.

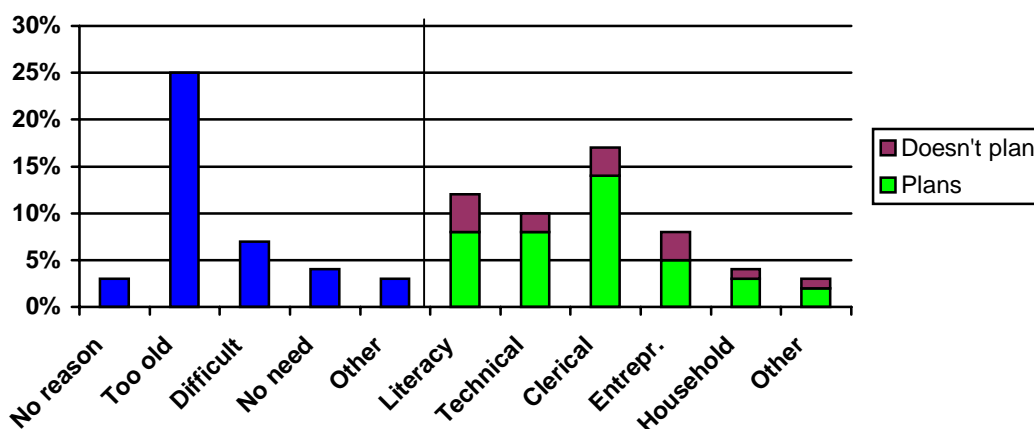
- **Informal acquisition of skills.** There is also a considerable percentage of the population, 49.6%, who state that they have learned some additional skill informally, at home or by themselves. Of these, 48% acquired some kind of a technical skill, 27% literacy skills, 10% clerical skills, and 3% small business skills.
- **Demand for additional education/training.** Information was elicited on people's plans and attitudes regarding further education/training in the future. The results are summarized in Figure 11 and Table 2. On the basis of the responses obtained, it appears that 58% of the adult population feel they need additional training, while 42% do not, either because of lack of ability (age, capacity) or, in the case of 11%, because they feel they have all the training they need for the future.

Of those who do wish for additional training, 71% actually plan to do so; among the 29% who do not, almost half gave as reason that courses are too expensive, and a third that

they have no time; the rest found available courses inconvenient or of poor quality, or gave other reasons.

Figure 11 gives a graphical representation of the proportion of persons who do not wish for additional training (first five columns), divided into categories according to the reason given, and those who do wish for additional training (last six columns), divided by category of training desired and also by whether they are making concrete plans to get the desired training or not.

Figure 11: Demand for additional training (“technical” here includes driving)



A test was also made of the apparent responsiveness of the demand for further training, to (1) prices, and (2) the perceived quality, of training courses. This question was administered only to those who had earlier indicated a demand for further training (i.e. those represented in the last six columns in Figure. 9 above). The results are as follows:

- 68% would increase their demand for training, if all prices for training dropped by half: 72% of those who are planning to take courses anyway, would increase their demand; and 55% of those who have no concrete plans at present, would then enter the market.

- 64% would increase their demand for training if the quality of courses was much improved (“so that it has a better chance to lead to good jobs”): 64% of those who are planning to take additional courses anyway, and 65% of those who have no concrete plans at present.

- The kinds of training which people would then demand are:

Table 2: Demand for further training

	If prices halved	If quality improved
Further schooling/literacy	12%	13%
Technical skills	16%	15%
Clerical skills	29%	24%
Business skills	18%	19%
Household management	21%	24%
Artistic, sports	3%	5%

Although, strictly speaking, these percentages could be seen as referring to the same thing – more education for the same price – it was felt useful to put the question twice, to detect people’s perceptions about problems with training courses. In fact, no great differences came into evidence, although one can note that courses in clerical fields (which includes computers) do seem to be perceived as expensive. Household management courses, as expected, were mentioned mostly by women (85% of cases).

3 Social capital indicators

(also from part 2 of the questionnaire, filled in by individual respondents)

Social capital was surveyed in five parts: (1) membership of groups and details about those groups; (2) personal perceptions and values; (3) level of trust in different persons/groups and support/expectations of support to/from them; (4) social safety-nets, and (5) miscellaneous aspects, such as time investment in different activities, income/leisure trade-off, the “internalization” of social capital (i.e. to what extent are individuals’ feelings of obligation, in harmony with their environment’s expectations from them), and perceived social needs. In every case, an attempt was made to obtain details that would enable a distinction between “low-rationalisation” social capital, comprising traditional, family-based, substantive forms, and “high-rationalisation” social capital, modern, profession- or value-oriented, process-based forms.

3.1 Membership in groups

Categories of groups. Respondents were asked to list up to six groups to which they belong, in order of importance to them. On the basis of their responses, it appears that 83% of the adult population belong to at least one social group. The first (most important) and second group mentioned can be tabulated as follows:

Table 3: Categories of groups.

Category of first group		Most frequent groups mentioned second
Church or religious group	60%	No group (51%), burial society (38%)
Burial society	12%	No group (54%), church (20%), stokvel (13%)
Stokvel	7%	No group (84%), church (6%), burial society (4%)
Political party	2%	No group (57%), church (14%), stokvel (14%)
Cultural, sports or other	2%	No group (88%)
No group	17%	

37% are members of a second group also, and 4% mentioned a third group, mostly a burial society or another stokvel. No one mentioned more than three groups.

One can set out these data differently, by calculating the number and percentage of respondents who belong to a particular kind of group, without regard to priorities. Then the following picture emerges:

Table 4: membership in groups

	Total respondents	Weighted %
Member of a church or a religious group	716 respondents	42%
Member of a political party	78 respondents	4%
Member of a burial society	431 respondents	25%
Member of a stokvel	158 respondents	8%
Member of some other economic group	19 respondents	1%
Member of a community/charity group	8 respondents	1%
Member of a cultural, sports etc. group	48 respondents	2%
Member of no group	206 respondents	17%

(It should be mentioned that respondents were asked to give the names of the groups. These were not coded, but they will later allow, if it is felt necessary, to correlate group characteristics with other human and social capital characteristics much more precisely.)

One notes the clear preponderance of church membership; among those who belong to one group only, the percentage of churchgoers rises to 67%. (Burial societies and stokvels follow, with 14% and 12% respectively.)

Some further investigations were made about the likely/unlikely combinations of groups, taking the sample of respondents who belong to more than one group:

- Burial societies and stokvels, being substitutes, are negatively correlated ($R = -.47$)
- Church members are significantly less likely to belong to political parties, stokvels and other economic groups, leaving burial societies, charity and cultural groups as the more likely additional affiliations.

An analysis of principal factors reveals four main distinct clusters: church & burial society members, church & cultural group members, political party & stokvel members, and

cultural & economic group members. (Membership in charity/community groups is of high uniqueness and without clear links.) The first cluster shows a significant negative link with the respondent's educational level (-.33) and household expenditure (-.35).

Table 5: Annual contributions to groups

Category	Mean	Median
Church groups	R 283	R 120
Political parties	R 226	R 50
Burial society	R 977	R 600
Other stokvel	R 2220	R 1200
Other economic group	R 856	R 516
Community/charity group	R 380	R 400
Cultural/sports group	R 452	R 240

Annual contributions. The annual contributions to the different kinds of groups – see Table 5 - are differentiated by group, since some have the character of personal savings. Since there is considerable skewness in the distributions, both medians and weighted means have been given.

Contributions to groups were analysed against *per-person household expenditure*. Although as expected, the absolute level of contributions rises strongly with household expenditure (see Table 6), the percentage decreases equally clearly.

Table 6: Contribution to groups, per income categories

Total monthly household expenditure:	Respondent's mean annual contribution to groups	Respondent's mean total contribution to groups, as a percentage of per-person household expenditure
0 – R 1000	R 454	6.4%
R 1001 – R 3000	R 832	4.3%
Over R 3000	R 1,844	2.8%

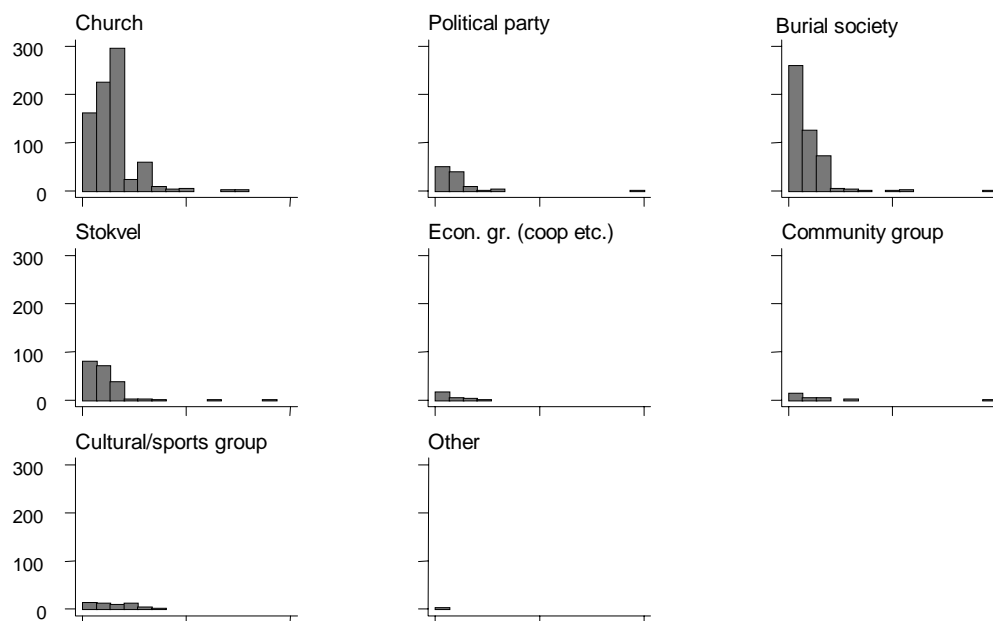
Time spent on group activities. This is summarized in Figure 12 below. The average time reported as being spent on group activities per year was 90 hours, equal to 1.73 hours per week. (This would include weekly religious service attendance.)

There is no significant difference in the time spent in groups among low/high income, or low/high education respondents. Even the age difference is not significant. Women, however, do spend slightly (but statistically significantly) more time in groups than men, an average of 143 hours per year as against 121.

It is interesting to note the large amount of time spent on church attendance (the modal amount is 3 hours), as well as the high number of persons taking part in this activity. One must remember at the same time, that there is a high degree of inelasticity in the choice of time spent, since church services are of a fixed duration, different from denomination to denomination, and there is normally an obligation to attend the full service. Thus individuals' choice is normally restricted to "so many hours or nothing", and changing one's denomination is a major decision, not undertaken for reasons of economy of time.

Also to be noted is frequency and length of burial society and stokvel meetings. There is again a cautionary point to be made: burial society and stokvel meetings are traditionally a social occasion, easily lasting a whole evening or more²¹. Thus the time spent at these “meetings” is not necessarily spent on group business, although there is an element of obligation to attend them for the full duration. Thus, while the time spent is a necessary investment in maintaining this aspect of social capital and in monitoring group performance, it should also be recognized that it is inflated by an element of “enforced consumption”, considering the positive utility derived from it.

Figure 12: Time spent in regular group activities, per kind of group. Each column represents an hour per week. The first, second, third etc. columns show the frequency of respondents who spend one, two, three etc. hours per week at that activity. Note that the total area of each diagram is a quick indication of the overall number of people involved in that activity.



Group membership, as well as investment in groups in terms of time and money, will be one of the principal subjects for analysis in correlation with human and other social capital measures, to be tackled in a subsequent paper.

Characteristics of groups. Next, respondents were asked about the following characteristics of the groups that they had mentioned: (a) homogeneity in terms of ethnicity, geographic area and economic status of members; (b) the existence of formal rules and procedures; (c) perception of whether the group functions well.

According to the answers, groups appear to have the following characteristics:

²¹ Lukhele, 1990.

Table 7: Characteristics of groups

	Yes	No	Sometimes/no reply
Ethnically homogeneous?	29%	58%	13%
Similar economic status	13%	78%	9%
Same neighbourhood zone?	28%	58%	14%
Formal rules & procedures?	95%	1%	4%
Does the group function well?	94%	1%	5%

The answers to the above questions were tabulated by group category. In **Table 8** below, the percentages of “yes” answers are tabulated:

Table 8: Homogeneity, by group category

	Ethnically homogeneous?	Economically homogeneous?	Geographically homogeneous?
Church	31%	7%	26%
Political party	14%	6%	21%
Burial society	23%	16%	31%
Other stokvel	47%	37%	33%
Other economic group	22%	18%	12%
Community/civic group	13%	9%	9%
Cultural/sports group	28%	3%	27%
ALL GROUPS	29%	13%	28%

The figures in Table 8 show a society where homogeneity in one’s groups appears less important than one might have assumed; one notes in particular the ethnical heterogeneity of burial societies²². (There is, on the other hand, a high homogeneity from all points of view among other stokvels.) There are definitely indications of a modernizing society here.

Members appeared to be overwhelmingly positive about the general functioning of their groups. This answer is probably influenced to an extent by the leading character of the question, although it is reinforced by a later question (see below), to which respondents also expressed complete trust in their groups more often than in any other aspect of their social milieu, including their families.

Solidarity within neighbourhood. An additional question was asked to find out about group-like characteristics of the respondent’s neighbourhood. Do people in their neighbourhood get together to solve problems such as security, street cleanup, looking after children etc.? 43% gave a negative answer, another 40% stated that it is done sometimes. 17% said that they do so often.

An interesting picture emerges when one correlates the answers to this question with the kind of neighbourhood that the respondents live in, as shown in table 9.

²² It should be remembered that churches account for over 50% of groups overall, followed by burial societies with over 30%. Thus the characteristics of these two groups heavily affect the averages in the last row of Table 6.

Table 9 : Neighbourhood solidarity, by housing area

	Often	Sometimes	Never
Pre-1945 council housing	19%	30%	50%
Post – 1945 council housing	16%	36%	48%
Forced removals era housing	22%	44%	34%
Private housing	12%	48%	39%
Informal settlements	0%	69%	31%
Workers’ hostels	0%	72%	28%

There are sharp differences at first glance. However: further analysis shows that the mean level of solidarity (worked out by giving values of 1,2 and 3 respectively to the three replies) *does not change significantly from area to area* except for a slight, though significant, lowering of the rate for workers’ hostels. (This stands to reason: neighbourhood cooperation has a more occasional character in these more transient communities.) The difference is almost all in the “polarization” of responses from “sometimes” into “often”/”never”.

There may be, in the more established communities, a stronger difference between neighbourhoods that have the habit of cooperating and those that do not. But another hypothesis is that the difference is at the household level, resulting from two opposing forces that act differently on different households as a neighbourhood gets “established”: mutual familiarity and sense of community on the one hand, and increased security and self-sufficiency on the other.

The above two hypotheses can be tested from the data, since the survey was done on a cluster basis, by neighbourhood blocks. 22 clusters, representing the two oldest housing areas, were tested, and significant differences were indeed found in the responses²³, leading to the conclusion that the differences in neighbourhood solidarity are found more at the neighbourhood level than at the household level – an indicator of one particular aspect of social capital.

It may also be worth noting that the private housing area – where one may hypothesise a lower level of neighbourhood cooperation – is in fact the one that comes closest to the overall mean level for the sample.

There is no significant link between the level of neighbourhood cooperation and the level of household income (expenditure used as proxy), nor with the educational level of either the respondent or the respondent’s household. A more detailed analysis of correlations with other forms of social capital, will be done at a later stage.

3.2 Personal perceptions and values

Attitudes to wealth, individualism and risk (representing entrepreneurial values) were investigated by means of two questions on each subject, leading into opposite directions. The

²³ A one-way analysis of variance was carried out. The result is highly significant, but caution is indicated, since about a third of the categories contain less than five observations. Also, there appears to be some interviewer bias – to exclude it, one has to decrease the sample to only three pairs of clusters, of which one shows significant deviation from the whole-sample mean.

responses were combined into a numerical code with possible values from -4 to $+4$ indicating the respondent's attitude to each value²⁴ (see technical explanation in footnote.)

Table 10: Entrepreneurship-related attitudes (mean value, on a scale from -4 to $+4$)

	All	Women	Matric and over	Under 40	Self-employed	Above-median hh.exp.
Wealth	1.0 (SE .18)	.8	1.0	1.0	1.0	1.1
Community (v. individual)	-.2 (SE .18)	-.3	-.03	-.1	+.05	+.01
Risk-taking	2.6 (SE .05)	2.5	2.4	2.6	2.7 (at 6% LS)	2.5

It is obvious that the general attitude to taking economic risks is strongly positive in Soweto²⁵, although the attitude is less positive among women, as well as among the more educated. It also appears that the attitude to wealth is generally positive, while the attitude to community solidarity is the least marked but tends to be negative. Interestingly, women have a significantly *less positive* attitude to the community than men, while the self-employed and those with above-average wealth are *more positive* in this respect.

Meaning of “Ubuntu”. An open question was asked about respondents' perception of the meaning of “ubuntu”²⁶, to see to what extent it corresponds with the “correct” sphere of meaning (i.e. that generally used in literature), which relates to positive interaction among individuals. We checked the responses for the presence of nine concepts: three related to the “correct” idea of positive interaction among individuals; two related to a more conservative/authoritarian interpretation, involving social cohesion and obedience to norms; and three to a more individualistic interpretation, involving personal qualities²⁷.

- ²⁴ Wealth: 1. I admire the man or woman who has managed to become rich.
2. Most rich people have become rich dishonestly.
- Community: 1. You need the help of your community to succeed.
2. You must struggle alone if you want to succeed, you cannot count on others.
- Risk: 1. It is foolish to take risks with money.
2. You will only succeed if you have the courage to take chances.

The questions were in a different order than here above, to keep respondents unaware of the connections. Responses were coded from 1 to 4 (strongly agree=1, etc.) Composite codes for each of the three values were worked out by offsetting the values of the answers to the two opposing questions, with $+4$ indicating the most positive attitude to that value, and -4 the most negative. E.g. if a respondent answered “strongly agree” to one question and “strongly disagree” to the opposite question, his score would be $+4$ or -4 , the highest possible; while answers that contradict each other would cancel out to 0 or $1/-1$.

²⁵ It was feared that one of the questions on risk, “You will only succeed if you have the courage to take chances”, may not have been sufficiently neutrally worded, since it elicited overwhelmingly positive responses (mean 1.3). But it turned out that the “opposite” statement, “It is foolish to take risks with money”, elicited almost equally strong disagreement (mean 3.1)

²⁶ “Ubuntu” is a widespread traditional concept among the Black population of Southern Africa, revived and widely used today in politics and business life, as a summary of African social values (see e.g. Mbigi & Maree 1995), often in contrast to Western individualism. It is defined by the phrase: “A person is a person through other persons”.

²⁷ Group 1: help others, friendship/ community spirit, respect for others' individuality. Group 2: living in harmony, behaving according to norms/ tradition. Group 3: sense of humour, honesty, self-respect.

Responses were heavily focused on the “correct” concepts, relating to interaction among individuals (55% mentioned such concepts in first place), the other two groups of concepts being mentioned with equal frequency (22% each). There are weak, but statistically significant, positive links between higher household income and the more individualistic interpretations of the word *ubuntu*; and, interestingly, between entrepreneurial skills and the more conservative interpretations of this word.

General values. Lastly, respondents were given four virtues: honesty, generosity, cleverness in business, and family loyalty; and asked to rank them depending on how much they respect them. The percentages of persons who ranked a particular virtue first, are tabulated below:

Table 11a: Most important values (percentage of respondents)

	All	Women	Matric and over	Under 30	Self-employed
Honesty	42%	42%	47%	43%	37%
Generosity	13%	13%	13%	14%	11%
Cleverness in business	19%	18%	16%	16%	30%
Family loyalty	26%	27%	24%	27%	22%

The percentages in **bold** in the second to fifth column are those that show a significant difference (at least 10% LS) vis-à-vis the rest of the population. As can be seen, there are no substantial differences between the sexes or between the younger and older. On the other hand, it is noteworthy that there is increased respect for honesty among those with at least secondary school education; and as expected, there is a strongly increased respect for cleverness in business among the self-employed, offset by less respect for other values.

The above table only shows how often each of the four virtues was mentioned as the most respected, but it does not take into account 2nd, 3rd and 4th rankings. A second measurement was made, assigning each virtue a value of 3 if it was mentioned in first place, 2 if it was mentioned in second place, and 1 if it was mentioned in third place. On this basis, cleverness in business replaces generosity as the least-respected virtue. Mean values for the four virtues then emerge as follows:

Table 11b: Hierarchy of values (mean value, on a scale from 0 to 3)

	All	Women	Matric and over	Under 30	Self-employed
Honesty	2.0	2.0	2.1	2.0	2.0
Generosity	1.3	1.3	1.1	1.3	1.1
Cleverness in business	1.1	1.1 (men 1.2)	1.1	1.0	1.5
Family values	1.6	1.7	1.7	1.6	1.5

The four statistically significant differences have been brought out in bold characters. From this analysis, it appears that women give less importance to cleverness in business (offset mostly, though not at a statistically significant level, by family values); there remains the clear correlation between education and respect for honesty; and among the self-employed, the greater value placed on cleverness in business, is now offset by less value attributed to generosity, rather than the other two values as in the first table.

3.3 Level of trust in different persons/groups.

Respondents were asked to rate, at a level of 1-5, their trust in various groups and institutions. The total level of trust was quite balanced, with a mean of 3.16 in a range of 1-5. The list of these groups, from the most trusted to the least trusted, is as follows:

Table 12: Trust in different groups

	Population mean (Standard error of mean)	
Members of your groups	3.9	(.12)
Extended family	3.7	(.13)
Your local school	3.5	(.17)
Central/provincial government	3.3	(.17)
Professional/working contacts	3.3	(.08)
Local government	3.0	(.16)
Police	2.9	(.19)
Those who earn a living the same way as you	2.9	(.13)
Neighbours	2.7	(.12)
People in the same income category as you	2.6	(.12)

A further analysis was made of levels of trust in co-members of one's groups:

- complete trust (index 5) was unanimously expressed in their group co-members by the small sample (8 respondents) whose primary group is an economic one (cooperative etc.);
- the next highest level of trust (mean index 4.6) was expressed by members of community/civic groups;
- church and burial society members came next (mean index 4.0);
- co-members of political parties and stokvels each earned levels of trust of 3.7;
- cultural and sports group co-members came last with 3.5.

We also looked at the impact of (1) residential zone (council, private, informal, hostel); (2) household income, on trust in one's neighbours.. No significant differences were found, except for one: hostel dwellers were less trustful of their neighbours than other respondents.

3.4 Social safety nets.

In an urbanized area such as Soweto, the overwhelmingly most important security factor for the household's economic status is the employment status of its adult members. Accordingly, it was decided to make an assessment of the security value of various aspects of social capital by asking about *their effects on job-finding*. Questions were asked both about the respondent's last job-finding experience and her expectation regarding the next time she may be looking for a job. (The question on future expectations was asked before the one on past experience, in order to avoid influencing the second answer.)

Table 14: Job-finding strategies and expectations

	How did you get your present job?		How do you think you might get your next job?	
	Sub-matric	Matric or more	Sub-matric	Matric or more
Mass media	16%	26%	36%	50%
School or employment center	2%	12%	4%	12%
Family/friends	52%	40%	45%	27%
Schoolmates/ colleagues	1%	3%	1%	1%
Groups to which you belong	2%	2%	2%	2%
Yourself (set up a business)	9%	7%	5%	4%
Going door-to-door	16%	6%	6%	3%
Other	2%	3%	1%	1%

In this question, the most important characteristic with which to cross-tabulate seemed clearly to be the level of education. It seems plausible that job-finding strategies should differ significantly between persons with lower educational levels as against those who have completed at least secondary school.

As expected, there are substantial differences between the job-finding networks of the less educated and the more highly educated. At the same time, the data seem to support earlier findings (Wittenberg 1999) that in a situation of extremely high unemployment, formal channels (e.g. mass media) break down, and informal networks (referral by family and friends) take their place. This effects seems less strong – but still very much present - at the higher end of the labour market, i.e. for workseekers with Matric level or above. One notes the relatively low importance of “formal” social networks, i.e. groups, colleagues: most of the job-seeking network appears to be located among “family and friends”.

One also notes the high future expectations placed on mass media, as opposed to their real role in past jobseeking. Finally, it is worth mentioning the apparent importance, still, of finding a job by simply “going door-to-door” to prospective employers: although it is interesting that even the less-qualified appear to consider it less important as a future strategy.

A second aspect of social safety-nets was explored, with a question about the *sources of help* that the respondent's household could turn to *in case of financial trouble*. Up to three sources could be named. Out of 2695 strategies mentioned by 1186 respondents, the most frequent was the extended family (52% of respondents), followed by informal employment (41%). 27% mentioned social welfare, and 22% mentioned the community, including the groups to which they belong; 19% mentioned loans, and 19% existing savings. (Given the understanding of stokvels in South Africa, these three categories can probably be merged to quite an extent.) 22% also counted on help from friends (not family). Only 4% said that household members would disperse, joining other households; less than 1% chose to mention other sources of help, generally either transcendental or very vague (one respondent said openly that he would resort to crime). 31% included "I don't know" among their choices, and 5% gave this answer in first place, without mentioning second or third alternatives, indicating no safety-net whatsoever.

A breakdown of these answers by education, income category, and other social capital indicators, shows a pattern of links: between having "traditional" sources of help (family, friends) and other "low-rationalisation" social capital aspects such as membership in low-rat groups; and conversely, between the more modern sources of help (loans, social welfare) and attributes such as higher education, higher income and "high-rationalisation" social capital.

3.5 Miscellaneous.

Use of personal time. One expression of people's values is the amount of time that they spend on different activities. Although the responses to this question had their limitations – e.g. 58% of respondents listed activities for a total of less than 10 hours a day – there is much information that can be drawn from this set of answers.

The pattern of time employment differs substantially, of course, between e.g. people who are employed full-time and who are pensioners. Thus the answers are tabulated by the respondent's activity – see Table 13a below. As a second step, to break down use of time by other categories than simply the respondent's activity, a tabulation was made of the use of time by those who are employed full-time or self-employed, and they were differentiated according to sex, education level and income level – the results are shown in Table 13b.

Table 13 a : Use of time, by activity. (Shaded cells indicate statistically significant differences from the entire-sample average (but see footnote below) at 1%LS; underlined figures, at 5% LS.

	ENTIRE SAMPLE	Full-time education	Self- employed	House- wife	Full-time employed	Part-time employed	Un- employed	Pensione r
Size of sample:	1159	96	251	49	364	57	217	120
Work for money	41.5	36.5	47	33.5	41	33	35.5	41
Household work (inc. repairs etc)	14.5	17	12.5	33.5	11	12	19	13
Study/training/self- improvement	7.5*	17	6.5	6.5	9	6.5	7	7
With groups of which member	5	5	7	<u>7</u>	4.5	6	4.5	5.5
Other community work	3	4	3	3	2.5	<u>2.5</u>	4	<u>4.5</u>
With extended family	7	7	6.5	9.5	6.5	5	8.5	9
Socialize with	8.5	12	8.5	8.5	9	5	7	5

work/study colleagues								
Other social activities	6	5.5	7	7	5.5	4.5	6	11.5

* Note that the average time spent on study was calculated excluding full-time students, so that their substantially higher figure would not skew the picture. The statistically significant differences were – for this line only – calculated not against the overall average, but against this “residual” average.

Table 13b: Breakdown of use of time by fully employed and self-employed adults.
Shaded cells indicate statistically significant differences at 5%LS; underlined figures, at 10% LS

	ALL	Men	Women	Matric or over	Below Matric	High- income	Low- income
Work for money	44	43	44	44	43	43	44
Household work (inc. repairs, childcare etc)	12	11	13	13	10	12	11
Study/ training/ self- improvement	8	<u>8</u>	<u>7</u>	7	8	8	8
Work with groups to which you belong	5	5	5	5	4.5	5	5
Other community work	3	3	3	2.5	3	3	3
Help or socialize with extended family	6	6	6	7	6	6	6
Socialize with work colleagues	9	9	9	9	9	8	9
Other social activities	6	6	5	5	6	5	6

Note: in Tables 13 a and b, figures are rounded off to whole hours, except in one case where such rounding would have obscured a statistically significant difference. “High-income” means that the respondent belongs to a household having above-median total expenditure.

It is interesting to note that:

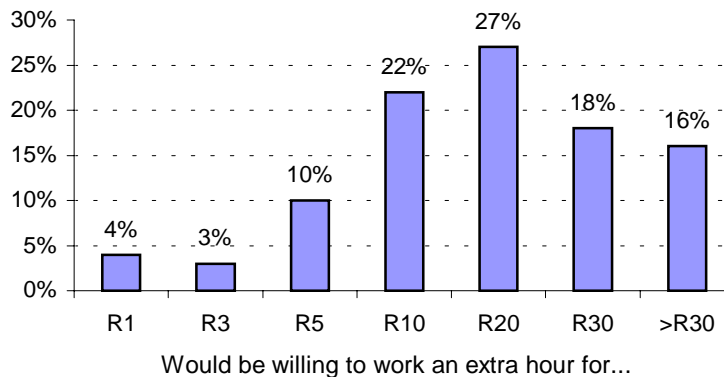
- All categories report spending substantial time in working for money, even those categories which would not be expected to do so.
- All categories report spending quite a high amount of time for study and self-education; interestingly, the highest amount (except for full-time students) is spent by those in full-time employment.
- Social capital building (group and community activities, socialization) is undertaken fairly equally by the different activity groups – making allowances for those in full-time moneymaking activities – and by men and women.
- Relatively educated people report spending *more* time both on household activities and with some social capital-building activities such as extended family and group activities, but not with other types such as community work and other forms of socialization.

Consumption/leisure trade-off. A further question on values tried to get an idea of the marginal rate of substitution of consumption for leisure, by asking the question: “Would you be willing to do an extra hour’s hard work per day in exchange for R1?” and, in the case of a “no” answer,

going up stepwise to higher and higher hourly rates: “And for R3? R5? R10? R20? R30?” – ending with “More than R30?”²⁸.

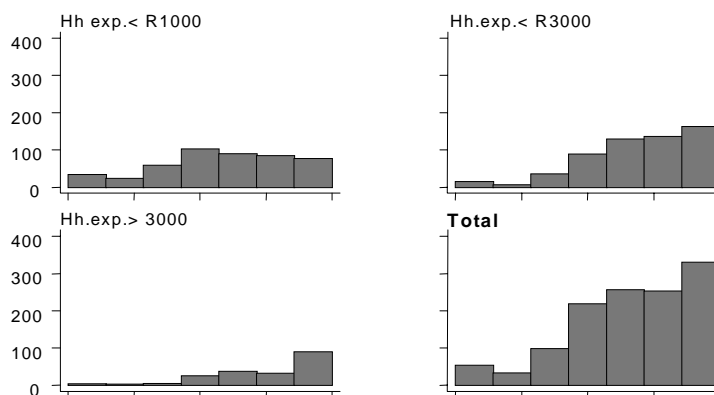
The overall distribution is as follows:

Figure 13a: Consumption-leisure trade-off



A more detailed breakdown was made by income category, giving the following picture:

Figure 13b: Consumption-leisure trade-off, by household expenditure



A preliminary cross-tabulation was also made with sex, education and respondent’s activity.. Education and age appear to make no significant difference; the following results were found:

- men demand more than women, by about half a category (women average just under R20, men about R24);
- persons already having a full-time activity demand more than the others (about R 24 as against about R 18).

²⁸ This had been a tricky question to administer properly, and interviewer bias was found in 6 out of the 25 interviewers, showing that they had not asked the question step by step as required. Their questionnaires were eliminated from the analysis of this question, leaving a much more plausible response pattern.

“Internalisation” of social capital. One further indicator was researched, namely, the expectations that the social milieu has of the respondents, and the extent to which the respondents internalize (agree with, feel at harmony with) these expectations. It is admittedly a complex issue for sociological research, but it is expected that some useful insights will come out of the one question which attempted to summarize it: “Imagine that your personal income has gone up by R1,000. (a) How much of that will you spend on your household; on other family/friends; on the groups to which you belong; on yourself? (b) If each of these *knew* by how much your income had gone up, how much would each expect to get? Would they give you trouble if they didn’t get it?”

1087 persons out of 1191, or 91.3%, answered this question. None said expressly that they would give nothing to any of the three groups mentioned; one can presume that a part of the remaining 8.7% are in fact of this opinion. A further 135 had to be dropped because the arithmetic was wrong, i.e. the R 1,000 was not divided correctly. The rest of this analysis will be done on the remaining sample of 952 respondents.

- 99% would give something to their households: average R 465.
- 61% would give something to family/friends: average R 165.
- 66% would give something to their groups; average R 81.

(The average contributions are calculated after excluding those who would give nothing.)

Table 15: “internalization” of social capital

	To household	To family/ friends	To groups
I would give the same as they expect from me*	54%	58%	64%
I would give more than they expect from me	20%	18%	14%
I would give less than they expect from me	26%	24%	20%
- and they would give me trouble if they knew	22% (of the 26%)	30% (of the 24%)	13% (of the 20%)

* this includes cases where nothing is either expected or given.

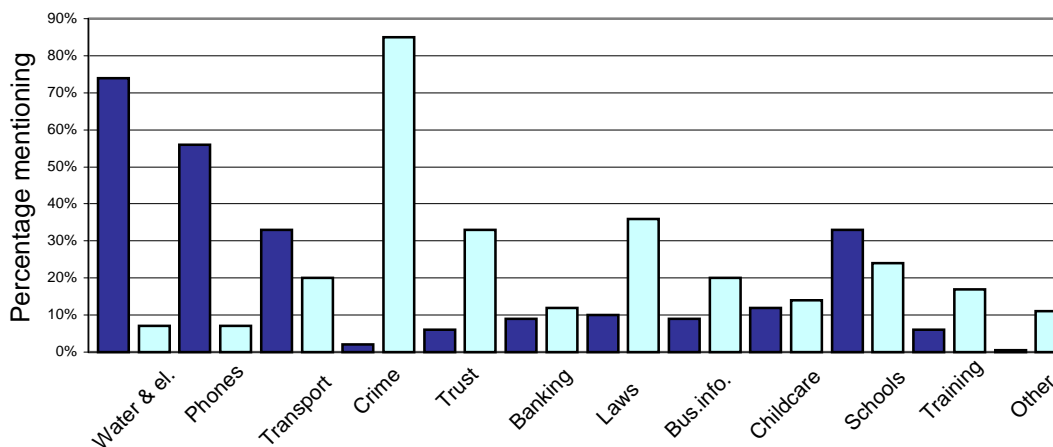
These first results do not show any unexpected features. The sense of voluntary commitment (higher contributions than expected) is quite similar across groups. The level of internalization (harmony between expectations and sense of obligation) seems higher for respondents’ formal groups, giving a sense of a clearer “social contract” with them.

Perceptions about public initiatives. Lastly, people were asked to identify up to three community initiatives that (a) had happened in the past five years and had made a positive difference; (b) that were the most urgently needed in their communities. Figure 14 gives a summary of the perceptions regarding 12 possible initiatives:

1. Government provides water/electricity
2. Government provides phone lines
3. Public transport is improved
4. Crime is decreased
5. People get to trust each other more
6. Banking and credit are improved
7. Laws are better and well-enforced
8. Business information centers are established
9. There are more business training schemes
10. Better nursery school/after-school programmes are introduced
11. Schools are improved
12. Training facilities are improved.

Each of these initiatives is given two adjacent bars on Figure 14, here below. The first bar (darker) counts the times it was listed as having happened, the second bar (lighter) counts the times that it is mentioned as a priority need still to be filled.

Figure 14: perceptions concerning public initiatives



Crime is by far the greatest concern, with practically every respondent mentioning it. The second biggest concern is to have better laws, and a close third is to build up better trust among people. Public transport, and all kinds of education and training, are also given priority, while the perceived need for services, credit/banking and childcare is relatively low (but might vary strongly depending on the income, education etc. category of the respondent; this will be a subject for further analysis).

One also notes that the provision of water, electricity and telephones is not seen as a major problem for the future, but is generally perceived as having been carried out satisfactorily.

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