



INDICATORS OF ECONOMIC STATUS AND SOCIAL CAPITAL IN SOUTH AFRICAN TOWNSHIPS

What do they reveal about the material and social conditions in families of poor children?

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This article proposes a set of non-monetary indicators of material and social resources characterizing the childrearing environments of families in South African black urban townships. The selected indicators include adequacy of food, quality of housing, financial assets, consumer goods and social resources. The study reported in the article was carried out between 1990 and 1996. Through factor analyses two dimensions of social and economic status (SES) – consumption and social/financial capital – were identified. High, moderate and low SES groups were formed based on the families' combined score on the two factors. SES was significantly predictive of a family's ability to meet basic needs and in its experience of material hardship. The results of the study are reported.

Interest in the assessment of economic and social status has expanded beyond a small group of development specialists, economists and sociologists concerned about economic development, policy evaluation or social class stratification (see, for example, McLoyd and Flanagan, 1990). This interest has been spurred in part by recognition of the strong link between child development and family welfare (Duncan et al, 1994). A growing body of research fuels concerns that economic deprivation and its sequelae, such as malnutrition and hunger, have enduring detrimental effects on the physical and cognitive development of children (Politt, 1994). Moreover, low socioeconomic status is linked to adverse outcomes such as high rates of behavioral problems, low school achievement and a host of social ills such as community violence, substance abuse and disintegration of family life (Barbarin and Soler, 1993). This article proposes a method for assessing material well-being and social resources using a set of observable indicators

which are inversely related to poverty or material hardship and deprivation. We tried to select indices that are relevant to the situation of families in developing economies and that could be used in comparative or cross-national research on the effects of social environments and resources on family and child development. We lay the conceptual groundwork for selected indicators by summarizing several approaches to conceptualizing social and material welfare. Finally we use the proposed indicators to describe the welfare of families with young children living in South African townships and consider their policy implications. In conducting this work we benefited enormously from the insights contained in the landmark work of Wilson and colleagues on the dimensions and ramifications of poverty in South Africa (Wilson and Ramphele, 1989; Wilson, 1994).

The economic and social context of South Africa

South Africa is a vast country occupying an area of 1.2 million square kilometers. Its scenic beauty, modern infrastructure and array of material and human resources justify its reputation as the jewel of Africa. However, several economic forces and social trends severely challenge its health and stability as a democratic society. The financial policies of the past have stunted what might otherwise have been a robust economy. Over the 10-year period from 1985 to 1994, the economy shrunk at an average rate of minus 1.3 percent according to the World Bank (1994). As a consequence, South Africa now has a per capita GNP of only US\$3000. The population, estimated at 40.5 million in 1994, grew at an annual rate of 2.2 percent. The highest growth rates occurred among Africans, who constitute 79 percent of the total population. The South African population is comparatively young. Approximately 37 percent of Africans are under age 15 (South African Department of National Health and Population Development, 1994). Although this is less than the 45 percent average for the African continent, it represents a much greater dependency ratio and strain on health and educational services than experienced for example in Europe with a 20 percent average.

About half of South Africa's population live in urban areas. In urban areas, women have greater access to formal labor markets, and they currently constitute 37 percent of the national labor force. Nevertheless estimates of unemployment among the black majority are extraordinarily high, somewhere in the range of 30–60 percent (World Bank, 1994). Consequently, many families rely on the informal or microeconomic sector, for example hawking goods on the streets or non-monetary exchanges such as bartering and trading, to satisfy their basic needs for essential goods and services. The median income per month for the entire population is R1860 (South African rand) or approximately US\$466. For Africans it is much lower. It is not surprising that over 40 percent of the African population live below the poverty line or minimum living standard of R900 per month.

Residence in rural areas, particularly the former homelands such as Zululand, Venda, Transkei or Bophuthatswana, is a virtual guarantee of poverty.

The challenges of high population growth are exacerbated by perceptibly high levels of illegal immigration from less stable or prosperous neighbors such as Mozambique, Zimbabwe and Lesotho, as well as more remote neighbors in central and western Africa such as Uganda and Zaire. Unless South Africa successfully addresses the issue of population growth, migration of rural populations to cities and economic stagnation, particularly in the manufacturing sector, the employment outlook will remain dim. In light of current demographic trends, the most sober economic forecasts suggest that the demand for employment will outstrip the economy's capacity to produce jobs for at least 30–50 years. As a consequence, the country risks squandering the legacy of hope it acquired as a consequence of transition to a multiracial, democratically elected government. Access to reliable information about social and economic circumstances of those who have been historically oppressed is an important first step in developing strategies to improve the quality of their lives.

Food adequacy: a basis for evaluating financial well-being

The necessity of food and shelter for survival provides the conceptual justification for most assessments of material well-being. Accordingly, conceptions of poverty center on whether individuals have enough food to forestall hunger and sustain life. The most direct and straightforward approach is to ask respondents whether the family has had enough food for a given period of time. Since many applications for a measure of sufficiency are financial in nature, there is a tendency to resort to indicators which translate reports of food consumption into monetary equivalents of the cost of the food consumed. One approach is to begin with an estimate of the minimum caloric intake required to sustain life (often estimated at 2100 calories per day per person). Then the annual cost of food needed to provide that number of calories is calculated and used as the poverty threshold. Accordingly, a family is designated as poor if it reports a total annual income lower than the estimated cost of providing each of its members 2100 calories per day. Alternatively, if consumption rather than income is assessed, the poverty line rests at that point at which a family's total household expenditures (for food and non-food items) is exceeded by the cost of providing the requisite 2100 calories per household member.

The poverty line may be adjusted downward from this level to impose a stricter standard of need, often in order to target limited resources to the poorest of the poor (see Grosh and Glewwe, 1995). Accordingly, indicators of poverty expressed in monetary form are used to determine eligibility for income support programs. Indicators can also facilitate comparisons between different groups and across different time periods. Poverty

thresholds can be useful as outcome criteria in program evaluations. For example, the effectiveness of income transfer schemes can be judged by examining pre- and post-changes in the percentage of persons in a country who live in poverty (Glewwe, 1992).¹ In South Africa, the poverty threshold is called the Minimum Living Standard. It incorporates not only the costs of food but also housing, clothing and education costs. About 32 percent of urban residents and 68 percent of rural residents live below this threshold. By contrast, the poverty line in the US is \$14,228 before taxes for two adults and two children; it is also based on the cost of a minimally adequate diet plus an allowance for housing and other expenses (Citro and Michael, 1995). Using this US poverty criterion, 13.7 percent of white children and 45.9 percent of black children in the US were poor in 1990 (Garfinkel et al., 1996).

Sensitivity

A dichotomous threshold index of poverty is suitable for population or macro-level studies in which the unit of analysis is a country. Similarly, adjustment of a dichotomous poor/non-poor scale downward may be the most practical solution to problems of establishing eligibility criteria for programs targeted specifically to the very poor. However, such a solution does not provide a sufficient basis on which to make valid claims about the impact of poverty on individual children and families. It does not serve the needs of researchers interested in generating knowledge of the specific pathways through which social and economic status (SES) influences the development of children and families. A dichotomous index obscures the impact of degrees of poverty and contributes little to identifying the specific aspects of economic deprivation most responsible for observed psychosocial consequences of low income and social status (Huston et al., 1994). Critical differences among the poor are often masked by dichotomous indices, because individuals who may vary significantly in quality of economic life would be grouped together under a single rubric. The poor are not all poor in the same ways, for the same durations and for the same reasons. Macro-level constructs need to be parsed into active ingredients, if they are to be useful in explaining individual variations in child behavior, emotional functioning, academic achievement and other individual outcomes. Use of multidimensional indicators increases the likelihood of identifying aspects of poverty that contribute most to poor outcomes.

Another problem associated with most poverty measures is reliance on self-reports of monetary income. There is increasing skepticism about the validity and accuracy of reports of income in research studies. Respondents may be motivated to distort income reports in an upward or downward direction depending on whether they are trying to impress the interviewer or guard against disclosure of income not reported to tax authorities. In other cases, respondents may not really know their household income, because

they themselves do not monitor it carefully, or because they are not made privy to the earnings of the persons monetarily supporting the family. To solve this problem, some researchers have resorted to estimates of consumption expenditures, that is material things that people possess and resources they have access to, as a gauge of income and adequacy of a family's living standard. This approach has great merit and is pursued in this study.

Accumulated economic assets

It can be argued that material welfare also involves an ability to accumulate resources in sufficient quantities to survive inevitable cycles of abundance and scarcity. The ability to save and accumulate assets for a rainy day is an important indicator of financial status and a prime basis of financial stability. In South Africa, poor families may have joined burial societies or savings schemes which involve making monthly or weekly payments of small amounts to be drawn on in times of need. The burial societies are a form of insurance. Each member so insured can count on having money for the cost of a burial and food for mourners attending the funeral. Savings groups function, in some cases, like cooperatives from which members can make loans in emergencies. In other cases they are like a Christmas club in the US in which periodic payments are made to a merchant, typically the owner of a grocery and general goods store. Advanced payments are made in anticipation of lean months of unemployment or unpaid vacations. Participants receive previously agreed upon supplies each week for a designated period of time.

Social capital

Material resources and financial adequacy, by themselves, are insufficient for human development. Although food, shelter and certain material goods are essential to life and physical growth, much more is needed. Coleman (1988) identifies a range of human and social resources necessary for development and uses the term 'social capital' to describe non-material resources needed. The notion is conceptually related to that of 'social status', used by social scientists to characterize intellectual and material resources and worldviews associated with social stratifications based on education and income. Building from these notions, 'social capital' refers to social and cultural resources that are available to a family over and above that conveyed by monetary resources. It also encompasses features such as social support, capacity for modeling coping and problem-solving, provision of intellectual stimulation and provision of a basis of healthy ethnic and gender identity conveyed to children by adults, particularly family members.

These additional social resources needed for child development and welfare cannot be easily reduced to some monetary equivalent and as such

are difficult to combine with economic indicators of welfare. Nevertheless, Entwistle and Astone (1994) provide a set of guidelines that constitute a plausible approach to measuring SES. Their approach incorporates financial/material resources, human capital, and family/household structure. Financial resources are measured in terms of pre-tax cash income, transfer payments and subsidies for food or shelter minus housing costs. Human capital refers to personal non-material resources that family members provide to children and is most often indexed by educational attainment. The family dimension refers to the presence of biological parents, step-parents or grandparents in the household with the indexed child. Hauser (1994) agrees in principle with these recommendations but takes strong exception to the omission of occupational status of the primary wage earner. He argues that occupational status and education, traditionally included, for example, in the widely used Holingshead two-factor SES index, are more stable indicators of resources than cash income. Even with disagreements about components to be included under the rubric of social capital, most scholars agree that a family's available social resources cannot be ignored, because they have a demonstrable and palpable impact on quality of life both material and social, and they strongly influence developmental outcomes.

Statement of problem

The approaches reviewed before emphasize the importance of consumption, access to necessities and availability of social capital as indicators of socio-economic status. Although information about cash income retains its importance in many assessments of economic status, there has been a gradual trend toward using consumption expenditures, housing and occupational status as indicators of welfare. This study tests the utility and sensitivity of several indicators of material welfare and social capital in a population of urban township residents in South Africa. These indicators were selected specifically to reflect economic and social circumstances characterizing the child-rearing environment among the poor and is intended for use in cross-national studies of child development. The central research objectives of this study were: (1) to propose a set of indicators which accurately represent the range of welfare conditions in urbanized South Africa; (2) to examine stability of economic status over a 4-year period; and (3) to compare economic and social situations of the poorest families to those with moderate and high levels of resources in an attempt to derive a portrait of who the poor are in South Africa.

Methods

Data for this study were collected in cooperation with the Birth to Ten Study (BTT). BTT is a longitudinal investigation of the effects of urbanization on

the development of a cohort of singleton births, occurring during the 7-week period between 23 April and 7 June 1990, to mothers who gave as permanent residence an address in the Johannesburg–Soweto area. Of the total births during this period ($N = 5443$), 74 percent were to Africans, 12.5 percent to whites, 10.0 percent to coloreds and 3.5 percent to Indian women (Richter et al., forthcoming). The enrollment process began in 1989 at ante-natal clinics. By the end of the cohort's first year, 4029 cases (74% of estimated births) were enrolled in the study. Pilot studies suggest that about 20 percent of women giving birth migrate to the study area for health care reasons, give birth and return to homes in rural areas after birth (Fonn et al., 1991). Other reasons for non-enrollment included death, moving out of the study area, inability to locate mother, and language difficulties. Outright refusals to participate were fewer than 1 percent.

Approximately 3975 of study enrollees gave a permanent address in the black townships. Percentages of enrollment varied among different groups designated as black: 87 percent for coloreds, 78 percent for Africans, and 70 percent for Indians (Richter et al., 1995). Extensive data on physical growth, psychological development and family life were collected in data waves occurring in 1992, 1994 and 1995. Approximately 2000 children were assessed at each point. Some children not picked up in one wave were successfully contacted in a subsequent wave.

1996 study sample

Participants on whom data are reported in this study (1996) constitute a subsample of the total BTT cohort collected in 1990. The goal was to gather data by which to characterize family functioning and behavioral and emotional adjustment of children in black urban townships in much greater depth than was possible with the entire birth cohort. A long-term goal was to examine similarities and differences between black children growing up in urban townships of South Africa and African-American children growing up in urban areas of America. One challenge of the study involved developing an instrument for assessing material and social welfare that would be sensitive to, and reflect important differences and variations that exist even within, the urban poor. These differences are often disguised in measures which only use education, occupation or family income. Another challenge was to develop indicators of material welfare and social status that also represent these same conditions in cross-cultural research; they must therefore be sensitive to SES differences in America as well.

Costs constrained sample size

From a desire to link more intensive information to the existing longitudinal data set, the sample was restricted to children interviewed consecutively at each previous data wave. Using these criteria, a subgroup of the BTT birth cohort was drawn to include those children who lived in the black townships

and had been successfully contacted at all three previous data collection points. Children from the Soweto/Diepsmeadow community comprise most of those eligible for inclusion, but the colored townships of Eldorado Park and Indian townships of Lenasia were also included. Seven-hundred-and-fifty children met the criteria for our study, and 625 (83%) were successfully contacted.

Interviewers

Interviews were conducted by five trained multilingual community residents who had experience in collecting similar data from earlier panels within the BTT study. They were selected because of their experience, the high quality of the prior work that they had done and because they were familiar with the families in the study. Each interviewer was assigned a community or suburb. The interviewers completed a 2-week training sequence that focused on concepts contained in the interview. Each interviewer was observed administering the questionnaire and corrective feedback was provided.

Procedures

The most recent addresses of participating families were generated from the BTT register. Interview appointments were arranged ahead of time by phone, by dropping off a letter with a suggested time or in person. Interviews were conducted in the child's home and lasted about 75 minutes. Mothers were read questions to which they responded. Some demographic information was supplied by other household members who had the information. Interviewers wrote down the mothers' responses on the questionnaire along with observations and commentary about the parents' behavior and the interview situation. Interviewers attempted to clarify inconsistencies in mothers' reports. Families were not reimbursed for the interviews, however they were given a BTT calendar. In some cases parents' work schedule did not permit them to be interviewed at home, and alternatively families were invited to come to Baragwanath Hospital, the main public hospital, serving Soweto. When parents came to the hospital for the interviews, they were reimbursed for their travel costs and provided with refreshments.

Community context

Table 1 summarizes important background data on Soweto and the study sample. Soweto's population is estimated to be somewhere between 1.2 and 1.8 million people. The exact number is hotly contested. People are housed in a variety of situations, including formal housing settlements built by the government and informal settlements in which squatters have moved to the city and set up houses made of frames and galvanized steel or plastic and cardboard. In addition to government-built housing in formal settlements, there are rooms added on outside or garage renovations which are reused for housing. Beds in hostels or dormitories have also been set up for migrant

workers who are occasionally joined by wives and children. About 55 percent of dwellings are formal housing structures and shacks represent about 6.2 percent of housing arrangements.

Table 1 Profile of Soweto, South Africa

Estimated population	1.2–1.8 million
Life expectancy (national rate)	64 years
Infant mortality (national rate)	72 per 1000
Annual maternal mortality (national rate)	150–300 (32 per 100,000 births)
Adult illiteracy (national rate)	18%
Unemployment rate	30–50%
Number of formal housing structures	125,000 (55%)
Number of apartments/flats	2400 (1.5%)
Number of garages/rooms used as homes	85,000 (37.4%)
Number of informal communities	16
Number of shacks	42,000 (6.2%)
Number of single sex hostel beds	14,000

Sources: Department of National Health and Population Development; South African Central Statistical Services; Daponte (1995).

Measures

Data were gathered in personal interviews using a survey instrument containing a combination of closed and open-ended questions. Included in the questionnaires were items related to social and material status of the child and family. See Figure 1 for the domains of social capital and material well-being assessed in this study.

Unit of analysis

The unit for social and economic assessment in the interview was the household. Household boundaries were easy to demarcate for situations involving a nuclear family or extended family in which one or more unmarried mothers lived with parents and their children under the same roof. Because housing structures were more complex and social arrangements in them more numerous than these traditional patterns, determination of what constituted a household and its membership was not always straightforward. For example, complications arose when some family members lived in the house, some in the attached garage or in an adjacent room added on with its own cooking facilities but all shared the outdoor flush toilet; or when the room or garage was rented to persons unrelated by blood or marriage. The simple rule used in this study to determine whether these complex living arrangements

I. Original conceptualization

MATERIAL WELL-BEING		
Accumulated assets	Quality of housing	Durable consumer goods
life insurance	type of home	washing machine
savings	rooms for sleeping	microwave
home ownership	separate bath	car
	separate kitchen	video recorder
Adequate food		refrigerator
	Utilities expenses	phone
		TV
		radio
SOCIAL CAPITAL		
Mother's education	Marital status/family structure	Occupation

II. Structure of indicators based on FACTOR ANALYSES

Social and financial capital	Consumption
occupation of primary wage earner	utilities expenses
accumulated assets	quality of housing
mother's education	durable consumer goods
adequate food supply	

Figure 1 Indicators of material well-being and social status

constituted a single household or multiple independent households living in close proximity was whether they shared meals and *ate from the same pot*.

Material well-being of child and family was estimated through questions pertaining to adequacy of food (hunger), shelter (housing) and utility costs and possession of durable consumer goods and accumulated financial assets.

Adequacy of food: Adequacy of food is a parent's subjective rating of whether a family has enough food to prevent hunger in children. Specifically, parents indicated the extent to which family children experienced hunger because they did not have food over the past month (3 = no, never; 2 = rarely; 1 = often; and 0 = all the time).

Shelter: Shelter is assessed in terms of size and quality of housing and utility costs. Parents indicated the *type of housing* in which they lived (0 = none or homeless; 1 = shack; 2 = hostel; 3 = room or garage; 4 = flat or cottage; 5 = home shared with other families; and 6 = home that is not shared).

Additional housing questions addressed: whether there was a *separate kitchen, separate bathroom* (1 = yes; 0 = no); the *number of separate rooms* set aside for sleeping; and the *type of toilet facilities* (0 = none; 1 = a pit or bucket; 2 = outside flush toilet; and 3 = inside flush toilet). *House size* was calculated by combining indications of a separate bathroom, a separate kitchen and the number of rooms designated for sleeping.

Utilities: This refers to expenses paid monthly for service charges (i.e. garbage removal) and the average of highest and lowest monthly electricity charges in the past year.

Durable consumer goods: Durable consumer goods are used as an indirect indicator of financial resources, assessed in terms of such goods available in a household. This indicator is a linear combination with a number of household items from among the following: car, refrigerator, microwave, telephone, television, video recorder and washing machine (1 = yes; 0 = no).

Accumulated assets: These refer to life insurance, savings and home ownership, which are considered important to economic status because they reflect the ability to garner and store financial assets as a protection against future difficulties or income drops. Assets were assessed by asking respondents whether they had savings, participated in a savings plan or had life insurance. To assess home ownership, respondents indicated whether or not they rented, purchased the home on bond or owned the home.

Social status: This item was also assessed because it is expected to have a relationship to material well-being. Included are marital status, education, occupation and family or household structure.

Education: Education is often seen as a means of upward mobility, and those better educated typically live in more advantaged material situations. *Mothers' and fathers' education* indicates the highest level of education attained by a parent (1 = less than standard 3, primary school; 2 = primary school, standards 3–4; 3 = junior secondary, standards 5–7; 4 = senior secondary, standards 8–10; 5 = matriculation, high school graduate, has passed matric exam; 6 = 1–2 years' college or technikon graduate; 7 = 3–4 years' university; 8 = more than 4 years' university, advanced degree).

Occupation: *Occupational status* was ascertained by asking names of all persons in the household who were employed, occupations they held and industries in which they worked. These data were coded using the following occupation status scale, very similar to that of the Nakao and Treas (1992) scale (1 = independent and high professional; 2 = salaried professional, manager, executive; 3 = semi-professional, low executive, administrative

position; 4 = senior clerical; 5 = white-collar inspection; 6 = skilled manual labor, semi-skilled supervisor; 7 = semi-skilled manual, unskilled supervisor; 8 = routine, non-manual; 9 = unskilled manual; 10 = menial labor; 11 = employment in informal sector; 12 = unemployed; 13 = housewife; 14 = student).

Marital status of the mother is coded as follows: 1 = never married; 2 = married, but not now living with partner; 3 = widowed; 4 = never married but now living with partner; and 5 = married and currently living with partner.

Family structure: Household membership is conceptualized as an indicator of support available to mothers. It indicates other household adults who contribute to parental tasks (e.g. partner or stepfather, biological father, grandmother). When mothers are unmarried, residing with a grandmother reduces the risk of problems and improves social conditions and caretaking environments for children. Additional inquiries into household membership included finding total number of people residing in the household, broken down into the number of persons 18 and older (considered adults), number of persons 6–17 years, and number under 6 years old. Children under 18 are considered dependents. Family structure is coded as follows: 4 = grandmother, multigenerational household; 3 = biological father only or mother with children; 2 = stepfather or unmarried mother living with non-biological father; and 1 = single adult, mother unmarried, widowed or divorced living with children.

Holingshead two-factor SES scale: The Holingshead Scale of Social and Economic Status is perhaps the most widely cited measures of SES. It uses a seven-point educational attainment scale multiplied by three, added to a nine-point occupational prestige rating multiplied by five for husbands and wives to classify families into one of seven social classes. These social classes are thought to index relative social position, which in turn is strongly related to lifestyle and other outcomes related to health and well-being (Holingshead, 1975).

Results

Questions naturally arise about whether the 1996 study sample differs demographically from the total BTT birth cohort enrolled from black townships in 1989–90. This has implications for whether conclusions drawn from data on the subsample can reasonably be generalized to the entire cohort. Table 2 provides comparison data on gender, population group, residence and language for three samples: total BTT birth cohort, total cohort residing in black townships and a subgroup of the black township cohort sampled in 1996. No significant chi-square differences were found. Most of the sample

Table 2 Demographic comparison of study sample to total birth cohort and total black township birth cohort

	<i>1990 Births total cohort</i>		<i>Black township 1990 cohort</i>		<i>Black township year 6 sample</i>	
	N	%	N	%	N	%
Males	1978	48.9	1648	49.2	310	49.7
Population group						
Indian	133	3.3	98	2.9	4	0.6
Colored	477	11.8	407	12.2	55	8.8
African	3174	78.6	2842	84.9	565	90.5
White	256	6.3	0	0.0	0	0.0
Area of residence (township)						
Soweto	2166	53.6	2166	64.7	424	67.9
Diepmeadows	663	16.4	663	19.8	142	22.8
Colored/Indian	520	12.9	520	15.5	58	9.3
Mother's language						
Zulu	321	38.0	319	38.5	156	42.0
South Sotho	154	18.2	154	18.6	68	18.3
Tswana	105	12.4	105	12.7	55	14.8
English	67	7.9	57	6.9	13	3.5
Xhosa	54	6.4	52	6.3	24	6.5
Afrikaans	40	4.7	39	4.7	13	3.5

come from Soweto and speak Zulu or Sotho. In addition, only one of 10 in both samples reported residing in a community rated as safe by a panel of experts.

Social status

For the 1996 sample, mothers served as primary guardians of children in 79.4 percent of cases; the next largest group of guardians are grandmothers (16.0%) and other relatives (4.7%). Approximately 55.9 percent of mothers in this sample were never married, 9 percent were widowed or divorced and 35.1 percent were married. These data show that more than one-third of children were born outside of legal marriage. Close to the same number of mothers (34.6%) reported living with biological fathers of their children. A slightly larger percentage of mothers (44.0%) reported that fathers contributed to the child's support. In approximately 10 percent of cases, even though the father did not live with the child, he provided support for the child.

Table 3 presents the education and income distribution for the sample

Table 3 Education, income, household size and employment status

	<i>Black township year 6 sample</i>	
	N	%
Educational status		
Illiterate	7	1.9
Primary school	122	32.5
Some high school.	169	45.1
High school graduate	77	20.5
Mother employed	274	79.4
Household size		
1–2 persons	27	4.4
3 persons	42	6.9
4 persons	64	10.5
5 persons	66	10.8
6 persons	109	17.9
7 persons	82	13.4
8 persons	65	10.7
9–11 persons	113	18.6
12–14 persons	28	4.6
15 or more persons	13	2.1
Income		
R100–R300	15	9.8
R301–R500	41	26.8
R501–R800	54	35.3
R801–R1000	17	11.1
R1001–R1200	7	4.6
R1201–R2000	17	11.1
R2001–R2500	0	0.0
R2501–R3000	2	1.3
> R3000	0	0.0
Mother qualified for Medical Aid	42	13.2

included in this study. More mothers failed to attend high school (34.4%) than completed high school or received an advanced education (20.5%). The median number of persons living in the household is about seven. This is larger than the national average of 4.4 persons per household. An overwhelming majority of mothers reported being in the workforce (79.4%),

however incomes reported by mothers are extremely low. More than 50 percent had cash incomes below the minimum living level, but less than one in five reported receiving medical aid.

The housing picture is somewhat surprising, if one only examined income and educational level. In the 1996 sample, 90 percent reported living in houses, and fewer than 8 percent lived in rooms, garages, shacks or hostels. That the overwhelming majority live in houses may be attributable to the fact that houses were issued when the government built and rented homes to blacks who were forcibly removed to the townships. Because the housing supply was restricted by the government as a way of limiting migration to urban areas, housing mobility was low, and grown children tend to remain in their parents' homes even after they have started their own families. Until recently, alternative housing was scarce and homes very small even for those with the means to afford more. Government-built houses were relatively small, typically three to four rooms: a kitchen, living room, and one to two bedrooms. Consistent with the design of government-issued housing, almost all had access to running water, but relatively few had inside flush toilets (25.4%), and the majority were required to go outside to use flush toilet facilities.

Distribution of consumer goods are described in Table 4. This table shows that some consumer goods, such as televisions and refrigerators, are relatively ubiquitous. However telephones now taken for granted in countries as modern as South Africa, are available in only 56 percent of homes, and other consumer goods such as cars, washing machines and microwaves are relatively scarce and exist in less than one in every four households. Note that washing machines and microwaves have not yet gained widespread acceptance among South African blacks and may not yet be the most sensitive discriminators of material welfare. Even among those who could well afford the cost, washing machines and microwaves – the middle-class time-savers are less favored by South Africans than labor-intensive hand-washing of clothing and time-intensive cooking methods. These patterns may shift when time-saving devices become more critical to quality of life.

Data on consumer goods were available in both 1990 and in 1996 (see Table 5). One issue to be raised regards stability and reliability of estimates obtained in 1996. Comparisons were made to data reported in 1990 and suggest that the questionnaire used to collect these data was relatively reliable. The degree of agreement between reports in 1990 and 1996 shows relatively high consistency, for example as much as 90 percent with respect to type of toilet facilities, bathrooms and housing. This appears to be the most stable domain, followed by possession of consumer goods and marital status. The least stable domain is home ownership where only 62 percent agreement occurs between 1990 and 1996 reports. The difference may be due to changes in government policy about ownership of government-rented housing. The government of National Unity began to enunciate a policy that

Table 4 1996 Sample – housing conditions and consumer goods possessed

	N	%
Type of house		
House	550	90.0
Apartment	13	2.1
Room/Garage	30	4.9
Shack/Hostel	18	3.0
No. of sleeping rooms		
1–2	226	65.7
3–4	108	31.4
5 or more	10	2.9
Inside water	113	40.9
Outside water tap	161	58.3
Separate kitchen	284	82.1
Separate bath	85	24.7
Inside flush toilet	88	25.4
Outside flush toilet	254	73.4
Refuse removal	339	98.5
Television	564	91.0
Refrigerator	554	88.6
Telephone	351	56.2
Video recorder	171	27.4
Car	163	26.1
Washing machine	130	20.8
Microwave oven	61	9.8

home ownership should be transferred from the government to renters who had been in homes for extended periods.

The relationship between indices of material resources and human capital was examined by computing Pearson product-moment correlations between indices representing material well-being (consumer goods, housing, utilities and adequacy of food) and those representing social capital (marital status, occupational status and education) (see Table 6). Items in the material resources domain are highly correlated with one another. Because possession of consumer goods has the highest intercorrelation with other indices of materials well-being, it appears to occupy a central role in the assessment of economic welfare of the family. Interestingly, adequacy of food supply is

Table 5 Agreement of social housing and consumption indicators between 1992 and 1996 for the select cohort

	<i>Percentage agreement</i>
Primary guardian	80%
Marital status	79%
TV	82%
Refrigerator	87%
Telephone	82%
Car	87%
Washing machine	81%
Type of home	89%
Separate bath	90%
Separate kitchen	87%
No. of rooms for sleeping	52%
Type of toilet	89%
Home ownership	62%

strongly related to accumulated assets. Assets in turn are related significantly to housing.

Within indicators of social resources, education and occupation are highly correlated. In response to the question how closely related are economic resources and social or human capital, the answer is clear. They are very closely associated with one another. Education and occupation have particularly strong correlations with adequacy of food and the amount of consumer goods a household possesses. These correlations range from .29 to .42. These correlations provide sound support for convergent validity of the indicators.

Factor analyses

We took an additional step toward examining the structure of these indicators by subjecting them to factor analyses. We wanted to determine whether indicators formed somewhat related but independent factors that corresponded to the social capital, human capital and consumption distinction that served as a conceptual foundation for this work. We adopted an approach that utilized exploratory and confirmatory factor analysis. Respondents in the 1966 sample were assigned randomly to one of two groups. One group was used in an exploratory factor analysis. Factor analysis was performed using the SPSS for Windows computer program. A principle components analysis was performed, and factors were rotated using the Varimax procedure with the criterion of a minimal eigenvalue of 1 for each factor extracted. Table 7 reports the results of this exploratory and confirmatory factor analysis. It shows that sampling adequacy was moderately high,

Table 6 Pearson product moment correlation coefficients for economic and social indicators

	<i>Assets</i>	<i>Consumer</i>	<i>Housing</i>	<i>Utilities</i>	<i>Occupation</i>	<i>Education</i>
Consumer goods	.29 (584) $p = .00$					
Housing	.24 (571) $p = .00$.42 (587) $p = .00$				
Utilities	.04 (577) $p = .16$.30 (598) $p = .00$.27 (584) $p = .00$			
Occupation	.17 (593) $p = .00$.31 (614) $p = .00$.12 (597) $p = .00$.12 (606) $p = .00$		
Education	.21 (593) $p = .00$.32 (614) $p = .00$.24 (597) $p = .00$.15 (606) $p = .00$.33 (625) $p = .00$	
Food	.26 (625) $p = .00$.27 (625) $p = .00$.16 (625) $p = .00$.05 (625) $p = .23$.23 (625) $p = .00$.24 (625) $p = .00$
	<i>Assets</i>	<i>Consumer</i>	<i>Housing</i>	<i>Utilities</i>	<i>Occupation</i>	<i>Education</i>

and the test of sphericity was significant. The expected three-factors solution was not obtained. Instead two factors were extracted, one of which combined social and economic capital. The social economic factor consisted of occupational status, financial assets, education and food adequacy. The second factor, consumption, consisted of expenditures for utilities, housing and household consumer goods. These two factors accounted for 50.4 percent of the total variance.

This procedure was repeated using data from the second group of respondents to confirm the existence of the original factors. Results of the confirmatory factor analysis show factors that were reassuringly identical with strikingly similar loadings. Two factors were extracted, and they accounted for 52 percent of the variance. The variables loading on each factor were identical to those found in the first factor analysis. These results

Table 7 Exploratory and confirmatory factor analysis of household economics on social status index

	<i>Exploratory</i>		<i>Confirmatory</i>	
Sample size	308		302	
Sampling adequacy	.78		.77	
Bartlett's test of sphericity	284.57***		313.74 ***	
Number of factors	2		2	
Variance accounted for	50.4%		52.0%	
Iterations required for convergence	3		3	
Factors	I. Capital	II. Consumption	I. Capital	II. Consumption
Occupation	.745		.680	
Financial assets	.654		.650	
Mother's education	.613		.663	
Adequate food	.612		.622	
Utilities		.775		.785
Housing		.729		.708
Consumer goods		.568		.585

*** $p < .001$

demonstrate achievement of acceptable factor solution and that they are relatively stable and valid. On the strength of the factor analysis, scales were created using unweighted raw scores transformed by division so that each component score had a possible range of 0–1.0. Transformations were performed to keep any individual component from overdetermining the composite raw score. The capital index then is a linear combination of mother's educational status, ability to feed children, assets and occupational status. Consumption is a combination of utilities, consumer goods and quality of housing. The total SES score is computed by summing capital and consumption indices.

SES comparisons

To facilitate use of these scales in analyses, distribution of total SES scores were standardized, and scores were set a mean of 50 and a standard deviation of 10. Using these standard scores, the sample was divided into three approximate groups labeled low SES, moderate SES and high SES. These groups were compared to see if they conformed to the expected direction with respect to social and economic indicators. The results are presented in Table 8. In each case the expected pattern was observed in which low SES groups had much lower frequencies of possession of consumer goods. The high SES group had the highest proportion of people reporting possessions.

Table 8 Comparison of SES groups on material possessions, percentage possessing item

	<i>Low</i> (N = 209)	<i>Moderate</i> (N = 210)	<i>High</i> (N = 201)	χ^2 (d.f. = 2)
Car	6.7%	21.9%	51.2%	108.1***
Refrigerator	75.1%	93.4%	99.0%	66.2***
Microwave	2.0%	4.2%	23.9%	66.3***
Telephone	28.7%	61.3%	80.1%	113.2***
Television	80.3%	96.7%	98.0%	52.6***
Video recorder	6.8%	22.3%	54.7%	121.9***
Washing machine	3.8%	11.2%	48.8%	144.1***
Hunger	50.5%	10.7%	1.5%	168.9***
Shack/hostel	7.7%	1.0%	0.0%	38.4***
Inside toilet	15.2%	31.8%	61.7%	101.6***
Life insurance	3.3%	18.7%	64.2%	202.4***
Savings	13.3%	48.1%	85.6%	214.6***
Home ownership	21.9%	46.3%	60.2%	107.4***

*** $p < .001$

For example, almost 100 percent of people in the high SES group reported possessing a refrigerator and television, only 3.8 percent of the low SES group reported having washing machines, and fewer than 7 percent in the low SES group reported having a car and video recorder. Interestingly, about 50 percent of the low SES group reported experiencing hunger, but only 1.5 percent of the high SES group reported this. None of the high SES group, and only 1 percent of the moderate SES group, reported living in a hostel or shack. Very few of the low SES group reported having life insurance or savings, although about one in five reported home ownership. Although 85 percent of the high SES group reported having savings, only 13 percent of the low SES group reported having savings. The SES variable is useful in describing relative economic advantage. Almost no household designated as among the poorest by SES indicator had life insurance or savings; they lived in the lowest quality housing and had children more likely to experience hunger.

Analysis of variance was performed to test differences between SES groups on other family, social and economic indicators. Table 9 presents the means, standard deviations, F-values and significance levels for these analyses. In each case the highest SES group was significantly higher than moderate and low SES groups. The high SES group had the highest household employment rates, highest number of income earners per household and highest per capita income and per capita rooms in the household. Additional

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Table 9 Mean score and standard deviations on economic indicators by SES groups

	<i>Low</i> (N = 210)	<i>Moderate</i> (N = 214)	<i>High</i> (N = 201)	F-value (d.f. = 2622)
Holingshead rating mean (SD)	14.4 (8.5)	22.0 (8.9)	31.2 (8.9)	188.5***
Housing quality	2.01 (.5)	2.28 (.4)	2.59 (.4)	96.5***
Consumer goods	2.06 (1.0)	3.11 (1.1)	4.56 (1.4)	219.7***
Income earners per household	.93 (.7)	1.27 (.7)	1.46 (.8)	28.1***
Proportion of adults in household employed	.28 (.3)	.43 (.3)	.55 (.3)	45.7***
Dependence – ratio of minors to adults	.52 (.2)	.53 (.3)	.51 (.2)	.31
Persons in household	7.88 3.9	7.19 3.4	6.43 2.6	9.61***
Per capita rooms	.33 .2	.36 .2	.44 .4	12.28***
Monthly utilities cost (R)	158.50 64.4	186.50 90.4	228.41 113.1	29.55***

*** $p < .001$

evidence of construct validity for this SES index is found in its relation to the Holingshead rating. First, there is a significant correlation between the Holingshead rating and the SES index created in this study. Note, however, that groups formed by our SES index have much lower class rating averages when the US-based Holingshead scale is used. The average score for even the highest SES group in our study is only a middle income SES group on the Holingshead scale (Class III). Only 12 members of our highest SES group are in the highest Holingshead group (Class I), and 56 are in the next highest group (Class II). The average score of the high SES group in the South African sample is comparable to a middle income group in the US (Class III). Nevertheless, the Holingshead scale and ours provide relatively identical rankings of persons on individual SES scores, even though they

differ significantly in absolute assignment to SES groups. It is possible that our range of individuals may be somewhat restricted or that the constructs operate somewhat differently in South Africa because of both the severe restrictions on access to higher education and restricted employment opportunities for blacks. A very small number of respondents in our sample attained baccalaureate or post-baccalaureate education. Although the population can be discriminated into low, moderate and high SES groups, in an absolute sense the population is drawn from a restricted range of social classes which would be comparable to the middle and low income groups in the US. This raises questions about the appropriateness of using similar standards in the US or other developed countries and in Africa. Determining SES by the Holingshead scale relies only on occupation and education. The correlation is .65 and they do not tend to produce identical results. The latter conclusion is borne out by the fact that there is a different relationship between critical demographic variables and class or income variables in South Africa and the US. In the US, single parenthood is almost universally associated with low income; this relationship is not as strong in South Africa. In the US, single-parent, unmarried women tend to have lower income or access to financial resources and poorer quality of housing. Because of cultural differences in family patterns in South Africa, single parenthood may be buffered. Single women tend to have access to better housing than even married women.

In order to respond to the question 'who are the poor?' and to develop a profile to answer this question, a series of multiple regressions were computed. The economic indicators of food adequacy, possession of durable consumer goods and housing were treated as dependent variables in separate regression analyses, and indicators of occupation, dependants, household size, single motherhood, live-with grandmother, educational level and household employment rate were treated as independent variables. Employment rate is the percentage of household adults who are employed, and the dependency ratio is number of household children under age 18 over total number of persons in the household. These analyses were performed to try and ascertain which types of families were more likely to experience favorable access to resources such as food, shelter and consumer goods. Are people with higher occupational status, lower dependence ratio, larger household size, single mother status, living in a household with grandmother, from higher education groups and others with higher employment rates more likely to have adequate food, possess durable consumer goods and have higher quality of housing than those which are not characterized in these ways? Results are presented in Tables 10–12. Results show that households with higher occupational levels, fewer people, in which the grandmother lives and those in which mothers are more educated are more likely to have adequate food than those who do not. In Table 10 the regression for

Table 10 Multiple regression analyses (with food adequacy as the dependent variable and social/familial factors as predictors)

Multiple <i>R</i>	.34			
<i>R</i> ²	.11			
Adjusted <i>R</i> ²	.10			
SE	.54			
Analysis of variance				
	d.f.	Sum of squares	Mean square	
Regression	7	19.87	2.84	
Residual	540	155.24	.29	
<i>F</i> = 9.87, <i>p</i> < .001				
Variables in the equation				
Variable	B	SE B	Beta	T-value
Occupation	.02	.01	.15	3.06***
Dependence ratio	-.07	.09	-.03	-.77
Household size	-.02	.01	-.10	-2.21*
Single mother	-.14	.05	-.12	-2.84***
Grandmother	.15	.05	.13	2.95***
Education	.11	.03	.19	4.22***
Household employment	.02	.09	.01	.20

* *p* < .05; *** *p* < .001

food adequacy presents a remarkable and somewhat surprising picture. Although childhood hunger is more likely to occur when mothers have limited education and low occupational status, it is also more likely to occur when a mother lives with a partner in the absence of her own mother. Conversely, children residing in a household in which the mother lives with her own mother but without a partner are less likely to experience hunger. The presence of grandmother and that of a partner along with higher educational and occupational status are associated with a higher level of consumer goods in the household (see Table 11). For housing quality, the only significant predictors are education and household size. Smaller households and those with more educated mothers have better housing.

These data answer the question about who the poorest of the poor are in this way: the poor are families with single mothers who did not attend high school, living in households with more than six persons and unemployed or underemployed. Also, education and employment status had the expected relationship to hunger. However, hunger was more likely to be experienced by children living with mothers and their partners but no grandmother than those residing with their single mothers and grandmothers.

Table 11 Multiple regression analyses (with durable consumer goods as the dependent variable and social/familial factors as predictors)

Multiple <i>R</i>	.45			
<i>R</i> ²	.20			
Adjusted <i>R</i> ²	.19			
SE	1.42			
Analysis of variance				
	d.f	Sum of squares	Mean square	
Regression	7	275.83	39.40	
Residual	540	1091.74	2.02	
<i>F</i> = 19.49, <i>p</i> < .001				
Variables in the equation				
Variable	B	SE B	Beta	<i>T</i> -value
Occupation	.07	.02	.16	3.41***
Dependence ratio	-.08	.24	-.01	-.33
Household size	.02	.02	.04	.93
Single mother	-.53	.13	-.17	-4.10***
Grandmother	.58	.14	.17	4.22***
Education	.43	.07	.26	6.26***
Household employment	.64	.24	.13	2.65**

** *p* < .01; *** *p* < .001

Discussion

Differences in the objectives of policy-makers, developmentalists and social science researchers make it understandably difficult to reach consensus on the selection of indicators and the scaling of SES. The desired qualities of a measurement approach depends on the applications for which the scale is intended. Because applications differ in the need for specificity and precision, a tool that is accurate, precise and detailed enough for policy evaluation in a single country may be too culturally and contextually specific for a cross-national policy evaluation. Or, a method useful to discern effects at a national level may be too global and blunt to capture adequately the social and economic variations of a household and to reflect real differences among individuals at the low end of the economic scale. For cross-national studies of child development, the desirable features of an SES scale are: simplicity in administration; ease of calculation; ability to discriminate variations in economic status at the low end of the economic scale; reliance on information which is accessible to the informant and independently verifiable; high correlations with widely used methods for assessing economic well-being (e.g. government poverty indices); and dimensions which have cross-cultural, cross-regional and cross-national relevance.

Table 12 Multiple regression analyses (with housing quality as the dependent variable and social/familial factors as predictors)

Multiple <i>R</i>	.32			
<i>R</i> ²	.10			
Adjusted <i>R</i> ²	.09			
SE	.46			
Analysis of variance				
	d.f.	Sum of squares	Mean square	
Regression	7	13.37	1.91	
Residual	540	114.17	.21	
<i>F</i> = 9.04, <i>p</i> < .001				
Variables in the equation				
Variable	B	SE B	Beta	<i>T</i> -value
Occupation	.00	.01	.02	.47
Dependence ratio	.07	.08	.04	.94
Household size	-.03	.01	-.21	-4.07*
Single mother	-.02	.04	-.02	-.38
Grandmother	.08	.04	.08	1.75
Education	.10	.02	.21	4.70***
Household employment	.04	.08	.03	.57

* *p* < .05; *** *p* < .001

Achieving broad-banded sensitivity, accuracy and cultural/contextual relevance in assessment of SES is a daunting task. Moreover, the social and economic situation in South Africa poses additional challenges because of significant distortions in the economy which are an enduring legacy of apartheid. These problems notwithstanding, we have proposed a simple method for obtaining information about key elements of a family's economic and social situation which we think has validity and which can be heuristically useful. It is scaled to be sensitive to variations in economic welfare of families clustered at the low end of the economic spectrum. Many commonly used indices of poverty lack the specificity and precision needed to differentiate among extreme levels of poverty that often exist in countries with wide income disparities such as South Africa. This scale treats as a central feature of welfare, ability to acquire resources needed to sustain life, i.e. adequate food and shelter. It also examines accumulation of wealth sufficient to protect against the vicissitudes of life. Rather than rely on self-reported income, the scale focuses instead on hunger, housing, utility expenses, possession of durable consumer goods, accumulation of assets and social status as reflected in educational attainment, marital status, occupation and family structure. Although these indicators may lack the financial specificity for

studies of economic development, they are very useful for studies of individual behavior and child development.

The data obtained in the application of this measure show that material hardship was much more rampant among Africans than among Indian and colored groups. For South Africans this is no great discovery; it is undoubtedly a reflection of differential distribution of resources made by apartheid to divide racial and ethnic groups. Households suffering greater material hardship also reported a higher number of persons living in the household, even though they did not have a higher ratio of dependent children to adults. The material advantage experienced by higher SES groups may be related to the proportion of adults who are employed; about half of adults in high SES households are employed, but under one-third of those in lower SES households are employed. The relative material advantage of the high income group over the poor does not extend to the amount of living space in homes. This may be due to the narrow range in the size of homes constructed by local authorities for black families, irrespective of income. Although there are significant differences between low and high SES groups with respect to rooms per capita, these differences are not very meaningful (.3 vs .4 rooms per person). With respect to class ratings using the Holingshead scale, those in the lowest SES group as measured by the Household Economic and Social Status Index (HESSI) achieved an averaged Holingshead class rating of 3.9; those in the middle SES group averaged 3.5; and those in the high SES group 3.0. In effect, the lowest SES group was Class IV and the high SES group was Class III according to the US-based Holingshead two-factor SES scale.

The information on household structure and sharing of resources are quite interesting. Differences in durable consumer goods between those in the high and low SES groups in material resources were significant but of the magnitude that might have been expected. Some argue that these consumer goods are not assets but liabilities because they are secured by postponing the acquisition of necessities or on installment credit. Per capita consumer resources of poor families are much lower than they appear when household size is not considered. The differences among the SES groups in absolute material wealth may be much greater than our data suggest. In poor low SES households, a larger number of adults pool resources to acquire the durable consumer goods found in the household. When estimates of absolute levels of material resources are desired, use of a per capita measure will be required.

The present study provides information about the poor that is consistent with observations made in other countries. For example, marital status is a significant contributor to economic status. Single mothers are disproportionately represented among those in the low SES groups. Employment and household size are also important. Although the low SES groups had more persons living in their household than the moderate and high SES groups,

they had fewer persons employed and a lower household employment rate. Interestingly, the high number of persons per household observed in the low SES group did not result in a higher dependency ratio, i.e. proportion of minors to adults which is roughly the same across the SES groups. This suggests poor households are formed by a single couple having many children. It is more likely that parents and primary guardians who are poor form joint households with other adults and their children. For example, adult siblings may live together with their children. Housing shortages may lead adult children to remain in the homes of their parents even after they are married and have children.

An interesting paradox occurred with respect to the relationship between childhood hunger and the presence in the household of the mother's partner and her own mother. The protection often afforded to children by the presence in the home of the mother's spouse or partner does not obtain in the case of children growing up in South African townships. The high rates of unemployment among adult males in the townships render the usual financial advantage of males in the labor force moot and irrelevant. With high rates of unemployment, adults are often reduced to the status of dependant. In time they can even become a drain on the family's meager resources. Children are more likely to experience hunger when a partner is present than if absent. These findings underscore the importance of policies to expand employment particularly for young adults.

The results of this study suggest provocatively that in the townships grandmothers are more effective buffers against hunger for children than the male partners of their mothers. Perhaps this occurs because the elderly receive small but reliable pensions, which in many households is the only regular source of cash income. With pension income, grandmothers often help to meet the basic needs of grand- and great-grandchildren who reside with them. The data show clearly that hunger occurs at high rates among the children of the poor. Steps to address this problem through massive school lunch programs are laudable but insufficient because they do not reach children who do not attend school. The experience of these interventions highlight the futility of a partial approach to the relief of hunger. An inadvertent consequence of the school feeding schemes may be to shift the household food supply away from school-aged children who are fed at school to preschool children and adults. Thus no real change in children's nutritional status will occur until programs adopt a family focus and consider how to supplement the food supply of the poorest households.

Conclusion

The criteria used in any government or charitable program to identify the 'deserving' poor are inherently subjective. The debate surround poverty and its alleviation is more than an academic one. At stake are decisions about

who should be considered needy enough to have their suffering alleviated through a government-directed transfer of wealth. Ultimately, the answers a government or nation comes up with are a reflection of their fundamental values and perspectives on the social contract and mutual obligations that exists among its people. This article is intended to further rather than end the debate among social scientists and policy-makers by demonstrating that relatively simple, observable and discrete indicators can be used to characterize accurately important features of the social and economic conditions under which children and their families live. Use of these or similar indicators can be helpful in policy planning on the selection of indicators of SES. Moreover they are thought to be of considerable benefit in advocacy and planning research designed to illuminate the consequences for children of material and social deprivation and the domains of deprivation most responsible for adverse outcome. By partialing out these domains of social and material deprivation it may be possible through empirical research to identify the specific aspects of poverty responsible for adverse development of children. Such information would be enormously beneficial in development of preventive social interventions targeted to the social or material resources most important to healthy development.

Notes

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1. There is increasing concern that the poverty line indicator as currently computed fails to represent the actual financial and material status of most families. These concerns have led to proposals to expand assessments of financial well-being to reflect more fully the range of resources needed or expenditures made for housing, utilities, clothing, childcare, health care and transportation (Citro and Michael, 1995). Even though the US factors housing costs into its poverty line, it seriously underestimates true cost. Also criticized is its disregard for regional differences in purchasing power, the value of transfer payments, the role of non-monetary exchanges, and changes in the proportion of family finances required for housing and childcare. See Huston et al. (1994) and Entwistle and Astone (1994) for a more exhaustive critical analysis of measures of SES and poverty than can be presented here.

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