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Poverty and Vulnerability Assessment

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Currency Equivalents

Currency unit: Uganda shilling
\$1 = Sh1,805 (December 20, 2005)

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Abbreviations and Acronyms

CIF	Cost, Insurance, Freight
CPI	Consumer Price Index
DFID	Depart for International Development, United Kingdom
HIPC	Heavily Indebted Poor Country
M & E	Monitoring and Evaluation
MFPED	Ministry of Finance, Planning, and Economic Development
NAADS	National Agricultural Advisory Services
NEPAD	New Partnership for Africa's Development
NIMES	National Integrated Monitoring and Evaluation Strategy
NUSAF	Northern Uganda Social Action Fund
OPM	Office of the Prime Minister
PEAP	Poverty Eradication Plan
PMAU	Poverty Monitoring and Analysis Unit
PRS	Poverty Reduction Strategy
PRSC	Poverty Reduction Strategy Credit
UBOS	Uganda Bureau of Statistics
UPPAP	Uganda Participatory Poverty Assessment Process

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Abstract

Uganda made enormous strides in improving household welfare between 1992/93 and 2002/03. Domestic policy brought about consistent, strong, broad-based growth reduced poverty by nearly 50% and increase household welfare, despite a decline in world prices for Uganda's key exports. Earnings rose and job growth was strong in the private sector, both formal and informal (i.e. self –employed and micro business). Mobility was high, allowing Ugandans at all levels of income to take advantage of opportunities economic growth provided. Services to the poor also improved. Uganda's success early on in achieving virtually the highest net primary school enrollment ratios among low income countries in Africa for poor and vulnerable children has reduced poverty in the early years of the decade and promises to pay solid dividends in the future.

Challenges remain, however. Increases in income inequality and high fertility rates muted the effect of growth on poverty, and the negative impact of these trends on the poverty rate has increased. Poverty reduction was lowest among agricultural households, where the poor were concentrated. Uganda's health indicators remained unacceptably high and showed little improvement over the decade. Meeting these needs requires a continuation of successful policies combined with new approaches in areas such as smallholder agriculture, expansion of infrastructure to improve the environment for private sector growth, and ensuring that high quality health services are accessible to the rural poor, especially for women with unmet needs in family planning and maternal and child health services. Uganda can meet these challenges - with the support of the all stakeholders including external donors - by developing holistic multi-sectoral approaches which build on the participatory planning, implementation, and monitoring processes developed over the last decade.

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SUMMARY AND CONCLUSIONS

i. ***Uganda made enormous strides in improving household welfare between 1992/93 and 2002/03.*** Domestic policy helped reduce poverty and increase household welfare, despite a decline in world prices for Uganda's key exports. Services to the poor expanded, as physical access expanded and costs fell. The period saw a strong, broad-based, increase in production, well above the growth of the labor force; improvements in labor productivity through shifts of labor out of agriculture; growth in private consumption that outpaced the growth of population; and as a result, decrease in poverty.

ii. ***Challenges remain.*** Between 1999/2000 and 2002/03 survey data recorded a slight increase in the poverty rate. Although these data are inconsistent with a number of other trends over the same period – such as an increase in assets especially in rural areas – they are a wake-up call. Increases in income inequality and very high fertility rates have muted the effect of growth on poverty; the negative effect of these trends on the poverty rate has increased since 1999/2002. The terms of trade, both internal and external, became less favorable to agriculture, causing the sector, in which the bulk of the poor works, to record slower growth than any other sector. As a result, poverty reduction among agricultural households was lower than average.

Poverty fell by half between 1992/93 and 2002/03, driven by rapid economic growth and structural change

iii. ***Poverty in Uganda declined from 56 percent of the population in 1992/93 to 38 percent in 2002/03—a decline of nearly 50 percent.*** All three measures of poverty—the poverty headcount, the poverty gap (measuring the average distance to the poverty line), and the squared poverty gap (the measure most sensitive to gains at the bottom)—improved. Urban areas benefited more than rural areas, the Central region (including Kampala) gained more than other regions, and the North, where conflict continues, witnessed the smallest gains. Although the absolute number of poor people in urban areas grew as a result of rural-urban migration, the poverty headcount was lower and poverty shallower than in rural areas.

iv. ***Uganda's economy grew at an average rate of 6.5 percent over the period, more than enough to absorb the 2.9 percent average annual increase in the labor force.*** Growth in the agriculture sector was much slower than growth in services or industry, however, making it harder for people employed in this sector to move out of poverty.

v. ***Private consumption—the most important determinant of poverty reduction—grew throughout the period.*** Consumption growth was surprisingly strong between 1997/98 and 2000/01, when exports, imports, and the external terms of trade contracted as a result of falling coffee prices. The rate of growth of consumption fell only after 2000, when the export price decline slowed and exports, imports, and private investment recovered, but even then per capita private consumption grew by about 2 percent per year.

vi. ***Over the same period, the structure of the economy and of employment changed.*** Uganda's economy became more open and diversified. Exports grew from 6 percent of GDP to

14 percent, even in the face of continued price declines for Uganda's traditional products (coffee, tea, cotton, and other agricultural goods). The export sector was kept afloat by expansion of sectors such as flowers and processed fish products. The share of value-added contributed by the agriculture sector steadily declined, and the size of the agricultural labor force fell, as labor moved out of agriculture into industry and services. Labor moved out of agriculture, possibly in response to the falling terms of trade, and other sectors absorbed the labor released. The trend was particularly sharp for men: the male agricultural labor force fell absolutely, while the female labor force grew, albeit more slowly than the total labor force. Although men are more likely to work in all nonagricultural sectors, women have moved rapidly into industry, trade, and transportation, and more of the new government sector jobs went to women than to men.

vii. ***Job growth occurred in both the formal private sector and the informal sector.*** While the fastest growing type of employment was nonagricultural self-employment, the private formal sector generated many new jobs. As a result, even though the government sector shed jobs, the formal sector grew slightly faster than the informal sector. As formal sector jobs tend to be both better paying and more secure, the growth of the sector may be one of the reasons for Uganda's poverty performance.

viii. ***The quality of the labor force, as measured by educational attainment, improved.*** The share of the labor force with secondary education nearly doubled, as did the share with postsecondary education. Most striking were the gains for women: as a result of universal primary education, the percentage of the female labor force with no education fell from 45 percent to 29 percent. This improvement in gender equity should affect positively long-run growth and poverty.

High mobility was key to poverty reduction

ix. Uganda has relatively little chronic poverty - only 39 percent of Ugandans who were poor in 1992 were still poor in 1999, meaning that about 22 percent of the whole population is chronically poor. At the same time, however, 12 percent of the population that was classified as poor in 1999 moved into poverty over the decade. Chronic poverty was lowest in the Central region and highest in the North, reflecting the disastrous effects of the violence. Those who were poor in both periods had larger households, and the mean household size rose for this group. Many households moved in and out of poverty, and most of those who moved out of poverty remained near the poverty line. The poorer a household was in 1992, the higher the probability of remaining poor in 1999, confirming the hypothesis that future poverty is related to current and past poverty and that the poorest people have the highest probability of future poverty.

x. ***Moving out of agriculture was a winning livelihood strategy for most households.*** The ability of workers - especially heads of households - to find higher paying work outside the agriculture sector diminished chronic poverty. The majority of heads of households who moved out of poverty changed sectors, either into non-agricultural self employment or the formal sector. Rapid growth in non-farm enterprises resulted in a lower rate of income growth for households who worked in this sector. Nonetheless, the average household income remained 70 per cent higher than in agricultural households, and virtually all households who started the decade in non-farm employment, as well as two thirds of those who shifted into this sector gained enough income to move out or stay out of poverty. Agriculture remains important as a back-up income,

as most households whose head worked outside the agricultural sector had a spouse or other household member working in agriculture, usually as subsistence for the family.

xi. ***Internal migration has been an important livelihood strategy***, especially within the Central Region. By 2002/03 half of household heads had migrated out of their district of birth, and 44 percent of households living in rural areas had migrated at least once. However, most of these migrations had taken place long in the past. Only 10 percent of household heads had migrated in the past five years. For all migrants, household heads in the richest quintile were more likely than those in the poorest quintile to report a recent migration. Non-urban migrants were thus unlikely to be poor, either because they need to be richer in order to migrate or because migration improves their monetary welfare. In urban areas 10 percent of the poorest quintile are migrants.

Most of the poor live in rural areas

xii. ***Most poor people in Uganda are rural subsistence farmers with limited access to infrastructure***. The lowest consumption quintile is 97 percent rural, while the richest is more than 40 percent urban (the urban share in total population is less than 20 percent). Much of the difference between the poorest and the richest quintiles over the decade was driven by the rural/urban income and services gap.

xiii. ***The steady decline in the internal terms of trade throughout the period made it difficult for agricultural households to move out of poverty***. Prices of crops fell on both external and internal markets, as food prices fell relative to other sectors. Had productivity not improved, the precipitous decline in food and cash crop prices in 2001/02 would have resulted in an even larger decline in income.

Inequality in Uganda has been rising, dampening the poverty-reducing effect of growth

xiv. Changes in income distribution affect the pace of poverty reduction, because, all other things equal, high or increasing inequality reduces the benefits of growth that accrue to the poor. High inequality may also make it more difficult to attain high growth.

xv. ***Since 1992 Uganda has experienced a steady increase in inequality***. The gap in mean income in rural and urban areas has widened, and inequality within both urban and rural areas has grown. The income gap between the Central Region and other regions, especially the North and the East, is widening, and inequality is widening within the Central Region.

xvi. ***The importance of between-group inequality is increasing***. Inequality within regions and within rural and urban areas did not increase as rapidly as the inequality between them. Family size and the education level of the household head also contributed to widening inequality, as the gap in fertility rates between richer households and urban ones and the rest of the population grew. This gap may also be one of the drivers behind widening rural-urban inequality.

xvii. ***Inequality had a significant dampening effect on poverty reduction***. Had Uganda been able to keep inequality constant over the decade, poverty would have fallen by 8 more

percentage points, to about 30 percent. This means that another 1.8 million people would have escaped poverty. If inequality had not increased, measured poverty would have fallen nationally by 1.4 percentage points instead of increasing by 4 percentage points during between 1999/2000 and 2003/03.

High fertility, especially among the poor, is muting the effect of growth on poverty reduction

xviii. *At 3.2 percent a year, Uganda has one of the highest population growth rates in the world.* Just to keep incomes constant, Uganda must grow by more than 3 percent a year, assuming no shifts in income distribution. Uganda has been able to achieve twice this growth rate for more than a decade, realizing significant poverty reduction despite negative distributional shifts. Since the easy gains from the postwar period have been exhausted and growth has slowed, however, the effect of high population growth on poverty reduction has become more obvious.

xix. *Poor people have larger than average families, and these fertility differences affect inequality.* In the richer urban areas, where estimated total fertility is 4.1 and falling (as a result of higher education levels among women, more urbanization, better access to contraceptives, and other factors), the proportion of the household members below the age of 10 dropped rapidly in the highest quintile and the proportion of members of working age rose. Among the poorer quintiles, where fertility exceeds 8 and has been rising, the proportion of the household below age 10 has been increasing. While a larger labor force can contribute to economic growth if matched by increases in capital and technological change, at the household level, the increasing the dependency burden limits the potential to save and invest. Thus, Uganda's higher dependency burden directly contributes to a growing rural/urban divide and widening inequality.

xx. *A simple experiment highlights the impact of high population growth on poverty reduction.* If annual population growth in Uganda had been equal to that in Mozambique (2.5 percent) between 1999-2002, the average annual growth of private per capita consumption would have been 3.2 percent as measured by the national accounts instead of 2.3 percent, and 1.8 percent as measured by the surveys, compared with 0.7 percent. This calculation includes no endogenous effects of lower population growth on inequality or labor supply, so it is a conservative estimate.

xxi. *Studies in other regions have shown that high fertility differences contribute to rising inequality and lower growth.* If this is the case in Uganda, rising inequality is likely to continue, possibly putting a brake on growth. High fertility is also likely to reduce savings, since households have less money to save or invest after taking care of dependents. High fertility will increase the costs of continuing to increase access to and the quality of public services, reducing the impact of growth on poverty reduction in the future, since households have less money to save or invest after taking care of dependents. High fertility will also increase the costs of continuing to increase access to and the quality of public services, reducing the impact of growth on poverty reduction in the future.

Both rural and urban households remain vulnerable to poverty

xxii. *Despite more than a decade of poverty reduction, many households in Uganda remain vulnerable to shocks.* The major causes of shocks include health-related issues; civil conflict, crime, and violence; poor access and quality of public and private services, such as markets, roads, and health clinics; and limited opportunities for improving their economic situation.

xxiii. *The vulnerable are not special categories of people but average Ugandans.* For some, especially in rural areas in the agriculture sector, shocks, combined with already low income, result in persistent, grinding, chronic poverty. For others these shocks account for the high incidence of transient poverty; assets, support from family, and other coping mechanisms help keep them out of permanent poverty.

Uganda remains primarily a rural country, but increased urbanization has increased the number of urban poor

xxiv. Many of the urban poor are elderly people, retrenched civil servants, or internally displaced persons who were never able to find regular jobs or employment activity. They often live in slum housing or on the streets. High migration into urban areas by relatively well educated, wealthier families may have reduced the opportunities for long term residents with little education or assets.

xxv. *The urban poor have developed several coping strategies to deal with the problems of low income and limited opportunities.* These mechanisms include engaging in low-level activities, usually in the informal sector, characterized by low pay and irregularity (working as taxi touts, bar maids and house maids, prostitutes, street children, or beggars or engaging in petty trade). Often this activity is actually disguised unemployment.

Uganda's education sector has seen major changes, including the introduction of universal primary education

xxvi. *Uganda has one of the best records in Africa in raising enrollments and reducing inequality in opportunity to attend primary school.* Spending shifted away from tertiary toward primary education, in a policy change that culminated in the introduction of universal primary education in January 1997. The policy reform abolished tuition and other costs (such as contributions to building funds and parent-teacher associations) in public primary schools and eliminated other barriers, such as uniforms, which had been a major hindrance to attendance by poor children.

xxvii. The universal primary education program shifted the burden of financing education away from households toward the public sector. Since the early 1990s, the education budget increased from 1.6 percent to 3.8 percent of GDP, boosted by donors and resources earmarked under the HIPC initiative and the Poverty Reduction Fund. In the early 1990s, less than 40 percent of the education budget was allocated to basic/primary education; by 2002/03 more than 60 percent of the budget went to this sub-sector. Since 2002/03 the development budget, which covers construction and maintenance, has increased more than six-fold.

xxviii. ***Universal primary education reduced the gender gap in enrollment.*** In addition to being pro-girls (at all income levels), the program was largely pro-poor, with children in the lowest quintile gaining the most. The program greatly reduced the wealth bias that had characterized access to primary education before 1997, helped establish gender equality by increasing girls' access to primary education, and reduced the incidence of cost-related drop-outs.

xxix. The proportion of households that incur education costs (tuition, boarding and lodging, uniforms, and scholastic materials) is higher among the poor: seventy-two percent of the poorest quintile but only 52 percent of the top quintile spent money on education in 2002. Among households that paid for education, spending rose from U Sh 104,000 in 1999 to about U Sh 144,000 in 2002. Spending by the poorest quintile remained fairly constant, at about U Sh 30,000 a year, while spending by the richest quintile rose from U Sh 245,000 to U Sh 428,000].

xxx. Because school fees are high, enrollment rates at the secondary and tertiary levels are still very low and gender and income gaps high. Among 13- to 19-year-olds, enrollment in secondary schools increased only slightly, from about 10 percent (boys) and 7 percent (girls) in 1992/93 to 14 percent (boys) and 13 percent (girls) in 1999/2000 and 19 percent (boys) and 17 percent (girls) in 2002/03. At the tertiary level the situation is much worse, with enrollment rates of 2.6 percent for boys and 1.2 percent for girls. Enrollment rates are even lower among low-income groups (especially girls), with no major changes since 1992/93. Without specific policies to address imbalances, the poor, especially women, are unlikely to benefit from public expenditures on post primary education.

xxxii. ***Increased primary enrollment over the decade has already had a strong positive impact on incomes of poor households, even in rural areas.*** Even some primary education (without completion) for the head raises rural household income per capita 20% higher over households where the head has no education, and completing primary education raises income more than 30 percent in rural areas. If all household heads who have not done so were to complete primary education, (all other factors in unchanged), the increase in per capita consumption could move as much as half of the population out of poverty and significantly reducing the severity of poverty of the rest.

Wide differences exist in access and use of health services and in health outcomes

xxxiii. ***The poor, vulnerable groups, and people living in rural areas bear a disproportionately heavy burden of disease.*** Although Uganda's health indicators are comparable to those of other African countries, indicators for infant and maternal mortality, life expectancy, and the incidence of stunting among children under five appear to have stagnated at very low levels since 2000.

xxxiiii. The government launched an important policy reform when it abolished user charges in public health care centers. Nevertheless, the proportion of patients seeking treatment in these centers remains low. Only about 30 percent of those who sought care came to public health centers, with the rest seeking treatment from private centers. Even among the poorest quintile, just 44 percent of people seeking care used public health centers. The greatest benefits from the abolition of user fees seem to have accrued to poor women, with use of public facilities by the poorest quintile rising from 44 percent in 1999 to 47 percent in 2002.

xxxiv. ***Households still bear a substantial proportion of the health care burden.*** Ugandans spent an estimated \$17.10 per capita on health in 2002/03. Of this amount, \$9.90 was paid by households, \$3.90 was paid from government revenues, and \$3.30 was provided by donors. Household survey data indicate that the level of out-of-pocket spending did not change substantially between 1999/2000 and 2002/03. A smaller proportion of people paid for health care, however, and the poor incurred lower expenses than the non-poor.

xxxv. Drug shortages at public health care centers suggest that poor people continue to pay for drugs. The limited availability of skilled and motivated personnel, the poor distribution of staff between urban and rural areas, and the different levels of health centers have strong implications for service delivery across the country. Uganda has only 7.4 physicians, 5.6 nurses, and 13.6 midwives per 100,000 people, figures that compare very poorly with the rest of Sub-Saharan African.

xxxvi. ***In sum, the impact of health sector reforms on health outcomes has been modest,*** for several reasons. First, physical access remains poor: only 49 percent of the population has a health center within a five-kilometer radius. Second, services are not very effective: the prevalence of preventable communicable diseases is very high, and the incidence of noncommunicable diseases is rising. Third, demand for health services, especially those provided by the public sector, is growing at a very high rate, because of rapid population growth and the effects of HIV/AIDS. Fourth, combined government and donor funding is still well below the \$15 per capita recommended by the New Partnership for Africa's Development (NEPAD). As a result of high demand and limited funding, the quality of services has deteriorated, with drug stock-outs and the absence of trained personnel in health units reducing the quality of service delivery.

Despite some improvement, the rural poor lack access to infrastructure

xxxvii. Given the dominance of agriculture in Uganda's economy and the need to industrialize (most likely in the form of agro-processing), the government needs to do more to improve rural transportation and electrification. Access to electricity by rural households has increased only slightly since 1992/93, and access to electricity by the rural poor hardly changed. Access to rural feeder roads increased only slightly between 1992/93 and 2002/03 and appears to have fallen since 1999/2000. Because these investments are not commercially viable, public support is required.

xxxviii. ***Uganda significantly improved access to safe water sources since 1992.*** Policy was pro-poor, as access to safe water in the poorest quintile improved 11 percentage points (from 50 to 61 percent), while in the richest quintile access increased by 6 percentage points. Despite these efforts, much work remains to be done. Most households have to travel long distances to safe water sources – usually women, adding to their workload and reducing their productivity in agriculture. Almost a third of Uganda's households still draw their water from open sources. About 57 percent of urban residents have access to piped water, but the figure in rural areas is just 4 percent and overall, and less than 3 percent of the poorest quintile of Ugandan households have access to piped water. Data on household spending on water suggest that access to the national water system is limited. Only about 20 percent of Ugandan households (8.5 percent of the poorest quintile and almost 50 percent of the richest quintile) paid for water in 2002/03.

Limited access to land contributes to rural poverty

xxxix. *High fertility and population growth rates, as well as agricultural practices limit poor people's access to land in Uganda.* Large families have led to declining agricultural landholding per capita, from an estimated 2.16 hectares in 1990/91 to just 0.81 hectares in 2001/02. The result has been land shortages and uneconomic subdivisions, especially in land-scarce areas. This pressure could be eased if the capacity to farm large areas was improved through the use of better technology; access to product and factor markets was improved, and land hoarding, including by absentee landowners is reduced.

xl. *Land markets and land rentals are vibrant in most parts of the country, but they remain largely informal.* Land rental markets have a key role to play in ensuring the effective use of land, a role that will become more important with economic development. To the extent that rental markets shift land to more productive farmers, it is important to design mechanisms of land redistribution that complement rather than substitute for these markets. Spurring development of a formal land rental in Uganda would be a first step in this regard. Of course, such market transactions can thrive only where land ownership rights are clear. These rights are enshrined in the Land Act 2004, but their implementation requires a push.

xli. *Women have much less access to land than men.* As is the case elsewhere in Africa, customs, cultures, and traditions deny women ownership and control of land. They also influence the legal interpretation of women's rights when issues of land ownership and control become contentious. As a result, although women account for more agricultural production than men, only a small proportion of women own land (largely through purchase, rarely through inheritance). About 97 percent of women have relatively easy access to land in terms of user rights, but only 8 percent have leaseholds and only 7 percent own land.

xlii. To increase land access by all, the government has, through the 1995 Constitution and the Land Act of 1998, made provisions for the recognition of different land ownership/tenure arrangements and the protection of bona fide tenants on mailoland. Implementation of the Land Act of 1998 has been slow, however, with limited impact on land registration, tenure security, and investments on land. Lack of financial and human resources, and in some instances unworkable provisions of the Act, are cited as some of the constraints for its slow implementation.

Agricultural extension services need to reach more of the poor

xliii. Despite the importance of smallholder agriculture in Uganda, only a small proportion of the farming population receives agricultural extension services. Only 17 percent of agricultural households received extension services in 1999. Use of extension services is more widespread among richer households. Among the poorest quintile, just 13 percent of agricultural households were visited by extension officer in 1999. In contrast, among the richest quintile, extension officers visited 25 percent of agricultural households. Unlike in other African countries, the quality of extension services is high. Preliminary findings of the assessment by the National Agricultural Advisory Services (NAADS) show that the program increased the value of agricultural production and farmers' incomes in the pilot districts. Estimates by the International Food Policy Research Institute and the Uganda Bureau of Statistics show that the value of crop

production per acre was about 27 percent higher and per capita income 41 percent higher in subcounties implementing the NAADS. It is therefore important to roll out the NAADS program to the rest of the country, and to not leave out women in the process.

While political, administrative, and fiscal decentralization, has been a key element of Uganda's pro-poor policy, the voice of the poor in local government is still limited

xliv. Both local NGOs and residents complain about the lack of information flow down to the parish and village levels, which makes it almost impossible for residents to monitor service delivery. They also complain about a lack of cooperation between NGOs and local communities in assessing needs and planning service delivery. Women, the elderly, youth, people with disabilities, and the chronically ill are not able to participate in village meetings and feel excluded from the process at the village and parish levels. Most villages have not yet implemented national initiatives such as community-based monitoring and evaluation committees.

A change in government focus is needed to reduce poverty

xlv. Since 1997 the government has developed and used the Poverty Eradication Plan (PEAP) as the basis for formulating and implementing policies aimed at eradicating poverty. All versions of the PEAP have emphasized good economic management, improved security, good governance, improved production, competitiveness and incomes of the poor, and investment in human capital as the basis for poverty eradication. In addition, the 2004 PEAP emphasizes the need for increased efficiency and transparency in the use of public resources.

xlvi. *Past policy, formulated through participatory processes delivered extraordinary results, but high levels of rural poverty and increasing inequality suggest the need for a more ambitious, holistic approach.* The pace of recent gains in poverty reduction is unlikely to continue; additional gains will be harder to secure. Providing social services and spurring growth will not be sufficient to sustain poverty reduction in Uganda. The 2004 PEAP is therefore right to emphasize the need for growth in income earning opportunities. Given the increasingly imbalanced pattern of poverty reduction in Uganda, policymakers should consider whether—and how—to generate shared growth. Gaps in income differentials across quintiles may continue to widen in Uganda, as the economy continues its path of structural transformation out of nonmonetized agriculture and into cash-cropping, industry, and services.

xlvii. *Development of an ambitious monitoring and evaluation system has been a crucial factor in ensuring that implementation of the PEAPs has been pro-poor.* Creation of a results-based planning and budgeting system was one of the initial goals of the PEAP process. All PEAPs have included sectoral and macro targets, and ministries are required to demonstrate the linkage of their proposed programs and expenditures to PEAP objectives and targets in their budget submissions, taking account of stakeholder views in the process. These annual sector submissions are complemented by regular analysis, done by Ugandan researchers associated with the PEAP secretariat, on the extent, causes, and consequences of poverty, and the implications for PEAP strategy. PEAP 2004 has a comprehensive results and policy matrix, as well as a Government-wide strategy for raising the quality of monitoring data. These processes have

facilitated the increasing alignment of donor resources with PEAP strategies, and increasing the amount of donor resources provided directly through the Government budget.

xlvi. ***But more needs to be done to maintain progress*** toward meeting the PEAP targets for poverty reduction, growth in the incomes of the poorest quintile groups needs to improve. This means that agricultural growth requires special priority. Farmers in Uganda face high transactions costs in accessing inputs and getting their crops to market. And infrastructure and agricultural services used by poor people in Uganda have not kept pace with access to social services since 1992. The government may need to place more emphasis on rural transportation, rural electrification, and agricultural services in future budgets and policy decisions.

xlix. The government needs to address the issue of high fertility and population growth rates if the growth pay-off for poverty reduction is to be maximized. The causality between poverty and family size at the household level is subject to debate. But it seems likely that the unmet demand for family planning in Uganda is contributing to a large number of unplanned births, which can seriously affect mothers' health. With female labor participation in the economy increasing, this issue may need further consideration during implementation of the PEAP. At the macro level, there are serious medium-term fiscal implications of population growth of 3.2 percent and a population distribution in which more than half the population is under the age of 15.

l. Additional public investments in infrastructure—energy, roads, rail, and air transport—are needed to improve the environment for private sector investment and growth. Electricity supply is needed for structural transformation into industry, particularly to increase the value-added component in agricultural exports through rurally based agro-processing. Current and projected demand for energy falls short of supply by 100–200 megawatts. There is thus a strong need to invest in this sector in order to meet base and peak loads and ensure stability of the power supply network.

li. ***Improving transport infrastructure could significantly reduce Uganda's transactions costs and expand access to regional markets.*** Improving roads, rail, air freight links, and waterways and supporting the development of efficient and affordable information and communication technology are important to boosting production, incomes, and competitiveness. The government's commitment to improving and maintaining the national road network in accordance with the Ten-Year Road Sector Development Programme, as reflected in the Budget Framework Paper 2005/06–2007/8, is important.

lii. ***The challenge is substantial.*** Limited resources are one obstacle, especially in the education sector. Other obstacles include the limited effect of sectoral policies and practices on the quantity and quality of services delivered to the poor. These challenges will need to be addressed in the next stage of poverty reduction.

liii. Additional fiscal space is required to continue to finance the health and education services, improve the quality of social services, and expand rural infrastructure. In addition, Uganda's growing economy is creating demands for investments in secondary education to provide higher skilled labor. Value-for-money improvements will be needed, along with

innovative thinking on social service delivery options and infrastructure financing. This is not only a growth issue, but a poverty and welfare issue as well.

liv. The next PEAP progress report is expected in late 2006. Already, sectoral indicators are showing good progress. Data from the next household survey (also expected by the end of 2006) will give a new poverty headcount, which may help to clarify the poverty trend in this decade. Analysis of these data will provide further insights into the evolution of the determinants of poverty, the effectiveness of the PEAP strategy as well as the role of external factors. Past experience shows that once these analyses are completed, Uganda, through the participatory PEAP implementation process, will face the challenges presented and translate analysis into action once again.

1. POVERTY TRENDS

1.1 *Uganda experienced an extraordinary decline in poverty between 1992 and 2002*, with the percentage of poor people falling from 55.7 percent to 37.7 percent (figure 1.1). All three measures of poverty—the poverty headcount, the poverty gap (measuring the average distance to the poverty line), and the squared poverty gap (the measure most sensitive to gains at the bottom)—declined. Poverty reduction was broad based, although urban areas benefited more than rural areas, and the decline was much steeper in the Central Region (including Kampala) than elsewhere (Appleton 2001).¹ Although urban poverty declined more than rural poverty, the contribution of urban areas to the poverty headcount increased, because rural-urban migration raised the share of the population in urban areas.

1.2 *In 2002/3, about ¼ of Ugandans lived on US\$ 1 per day or less*. Since 1992 Uganda has conducted regular multipurpose household surveys that provide data on household characteristics, household consumption, livings standards, and access to services. The surveys provide reliable national and regional data. Uganda has established a national poverty line which slightly above the \$ 1/day international poverty line. However, Uganda's poverty line, adjusted to correct for spatial and temporal price differences, has been a constant benchmark throughout the survey period, measuring household consumption per adult equivalent (see Appendix 1).

1.3 While it is clear that *the speed of reduction in the poverty rate has fallen since 1992/3*, the trend in this decade is difficult to read because survey data collected in the years between 1992/93 and 2002/3 show consistency problems. (See Appendix 1). The 1997/98, data show *improvement* in all areas, especially in the Central Region, which benefited most from the coffee boom. However, this survey did not use the same consumption modules as the other surveys. The 1999/2000 survey *also showed a decline in poverty* from the previous survey (this survey went back to the consumption module used in the 1992/3 survey) with a suspiciously large decline in the Eastern Region. The 2002/03 data *showed an increase in the poverty headcount* especially in the Eastern region. The finding is surprising, for several reasons, examined in the appendix, most notably a simultaneous recorded increase in assets between 1999/00 and 2002/3, especially in the rural areas. Normally, the relationship between household consumption and assets does not change in a period this short. These inconsistencies in the data make it difficult to draw conclusions about changes in household consumption or poverty between 1999/2000 and 2002/03. This report therefore focuses on the longer 1992/93–2002/03 period, but uses the data between 1992/93 and 1999/2000 as needed, partly because 1999/2000 is the last year for which the only panel data that exist are available, and many of the labor market variables were not collected consistently prior to the 1999/00 survey. (Our investigation concludes that the variables other than the consumption aggregate should have been measured consistently). Where conclusions are suspect because they depend entirely on changes between 1999/2000 and 2002/03, they are noted in the report. Results from the latest household survey, (expected by end 2006), should provide more insights on these issues.

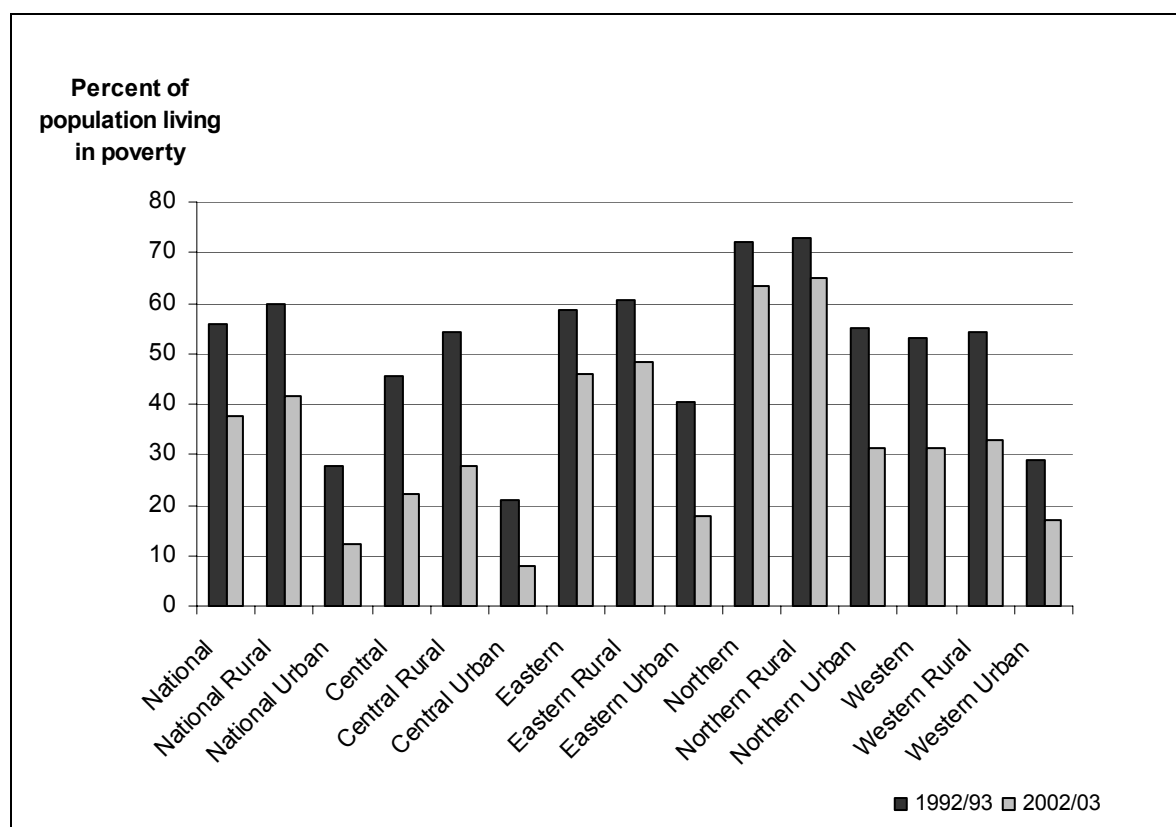
¹ All per capita figures in this assessment are actually per adult equivalent, unless other wise indicated (see appendix 1).

Table 1.1: Poverty Indices in Uganda, 1992/93–2002/03

Region	Population share (percent)		Poverty headcount (percent)		Poverty gap		Poverty gap squared	
	1992/93	2002/03	1992/93	2002/03	1992/93	2002/03	1992/93	2002/03
<i>National</i>	100	100	55.7	37.7	20.3	11.3	9.9	4.8
Rural	87.6	86.5	59.7	41.7	22.0	12.6	10.8	5.4
Urban	12.4	13.5	27.8	12.2	8.3	3.0	3.5	1.1
<i>Central</i>	30.6	31.6	45.6	22.3	15.3	5.5	7.0	1.9
Rural	22.7	23.1	54.3	27.6	18.7	6.9	8.8	2.5
Urban	8	8.6	20.8	7.8	5.7	1.6	2.2	0.5
<i>Eastern</i>	27.9	29.3	58.8	46.0	22.0	14.1	10.9	6.0
Rural	25.4	27	60.6	48.3	23.0	14.9	11.4	6.3
Urban	2.5	2.3	40.4	17.9	12.6	4.8	5.5	2.1
<i>Northern</i>	17.3	15.3	72.2	63.3	28.6	23.4	14.6	11.6
Rural	16.5	14.6	73.0	65.0	29.0	24.2	14.8	12.0
Urban	0.8	0.8	55.2	31.4	21.2	9.8	10.9	4.3
<i>Western</i>	24.2	23.7	53.1	31.4	18.7	7.9	9.0	2.9
Rural	23.1	21.8	54.3	32.7	19.2	8.2	9.3	3.0
Urban	1.1	1.9	28.9	16.9	7.3	4.5	2.6	1.7

Source: Appleton and Ssewanyana 2003.

Figure 1.1: Poverty Reduction Trends in Uganda, 1992/93–2002/03



Source: Appleton and Ssewanyana 2003

2. THE ENVIRONMENT FOR POVERTY REDUCTION

2.1 This chapter focuses on the macro environment households faced during period. It examines the relationship between changes in (a) the structure of value-added and the deployment of the labor force; (b) private consumption, private investment, government expenditure, the current account balance; and (c) key relative price changes affecting private purchasing power, on poverty reduction. It then analyzes the effects of growing inequality and of demographic trends on poverty reduction.

GROWTH AND CHANGES IN THE STRUCTURE OF PRODUCTION AND EXPENDITURE

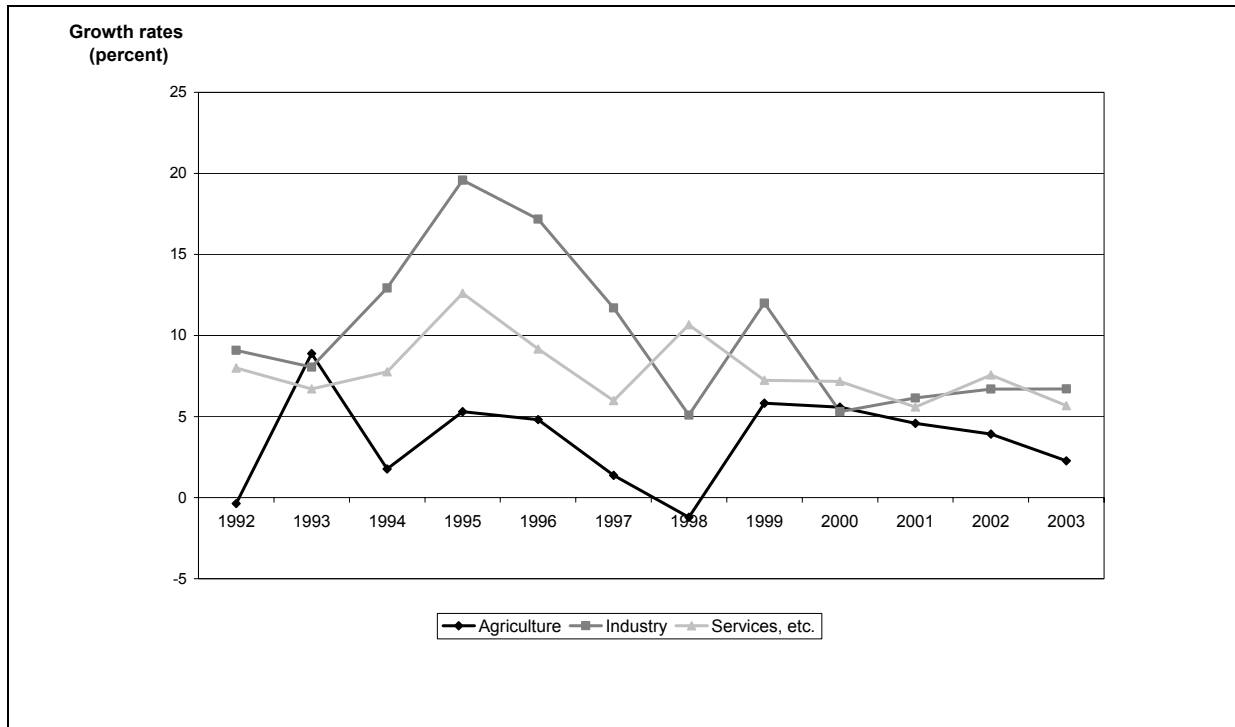
2.2 *Strong and consistent economic growth in agriculture, industry, and services was a major contributor to poverty reduction between 1992/93 and 2002/03* (table 2.1). Annual growth averaged 6.5 percent over this period—strong enough growth to absorb the increase in the labor force, which grew at an average rate of 2.9 percent. Uganda’s poverty performance over the decade was thus driven, at least in part, by improvements in labor productivity. While the non-agriculture sector grew steadily over the period, the agricultural sector suffered from major fluctuations. Uganda suffered setbacks in this sector as a result of bad weather and outbreaks of crop diseases, including coffee wilt.

Table 2.1: Summary Statistics on GDP, Poverty, and Consumption, by Sector, 1992/93–2002/03

	1992/93	1999/2000	2002/03	<i>(percent)</i>		
				1992/93– 1999/2000	1999/2000– 2002/03	1992/93– 2002/03
	<i>Share of GDP (percent)</i>			<i>Annual average growth rate</i>		
GDP (in factor prices)	100.0	100.0	100.0	6.8	5.6	6.5
Agriculture	49.3	40.9	38.7	4.5	4.1	4.3
Industry	11.8	20.7	21.7	10.7	6.7	9.7
Services	38.9	41.9	43.2	7.7	6.7	7.4
	<i>Share of Labor force (percent)</i>			<i>Annual average growth rate</i>		
Labor force	100.0	100.0	100.0	3.0	2.6	2.9
Agriculture	81.5	79.7	69.4	2.8	-2.0	1.3
Industry	4.6	4.2	7.2	1.4	22.9	7.4
Services	13.9	16.2	23.3	5.0	15.9	8.2
	<i>Poverty headcount (percent)</i>			<i>Annual fall in poverty rate</i>		
Households	55.7	33.8	37.7	5.6	0.0	3.9
Agriculture	62.7	39.2	48.8	5.1	-1.2	2.6
Industry	42.0	23.2	27.1	5.0	-1.5	2.3
Services	31.5	14.5	17.6	6.8	-1.3	3.8

Source: Data on poverty headcount are based on the 1992/93 Integrated Household Survey and the 1999/2000, and 2002/03 Ugandan National Household Surveys. All other data are from the Uganda Bureau of Statistics.

Figure 2.1: Annual Growth Rates, by Sector 1992/03-2002/03



Source: Author's calculations based on data from Uganda Bureau of Statistics.

2.3 The structure of the economy and of employment changed. The share of value-added contributed by the agriculture sector steadily declined, with the labor force following suit. Between 1999/2000 and 2002/03, the size of the agricultural labor force fell. However, the share of the labor force in agriculture is still 1.8 times the share of agriculture in value-added, indicating that there is room to shed labor even faster if other sectors can absorb it. During this period, labor moved into industry and services, but the growth of value-added in industry and especially services did not keep up with increases in the labor force. This probably reflects a growing nonfarm informal sector, in which labor productivity is low. Given these productivity trends, it is no surprise that poverty increased among some households engaged in services, construction, and manufacturing.

2.4 Private consumption—the most important determinant of poverty reduction—grew throughout the period. Economy-wide consumption growth was surprisingly strong between 1997/98 and 1999/2000, when exports, imports, and the terms of trade contracted, as a result of falling coffee prices. Consumption growth fell only after 2000/01, when the export price decline slowed and exports, imports, and private investment recovered, but even then private per capita consumption grew by more than 2 percent a year.

2.5 By 2002/03 Uganda's economy was more open and diversified than it was in 1992/93. Exports grew from 6 percent of GDP to 14 percent, even in the face of continued price declines for Uganda's traditional products (coffee, tea, cotton, and other agricultural goods). The export sector was kept afloat by expansion of sectors such as flowers and processed fish products. By 2002/03 fish products, which were not exported in 1992/93, were the second-largest export by

value, accounting for 20 percent of the value of noncoffee exports. Fish production was boosted by an 85 percent rise in CIF prices between 1999/2000 and 2002/03. Changes in the structure of the economy contributed to a large decline in poverty among noncrop agriculture households.

2.6 ***The steady decline in the internal terms of trade throughout the period made it difficult for some households to move out of poverty.*** Crop prices fell on both external and internal markets, as food prices fell relative to other sectors. The decline was most severe in 2001/2, when food and cash crop prices dropped precipitously. Had productivity not improved, this decline would have resulted in an even larger drop in income. Although prices recovered some ground in 2002/03 (due partly to a poor harvest in the Eastern Region), nonfood prices jumped sharply. The decline in internal trade represented a loss in purchasing power for farmers but a boon to the rest of the population, especially the urban sector, contributing to the widening rural-urban gap.

2.7 Aggregate changes in per capita consumption as measured by the Household Survey and by the national accounts are consistent, except for the 1997/98–1999/2000 period. During this period, the surveys show a large increase in household consumption and a large decrease in poverty, while the national accounts show much less of an increase in private consumption and a decline in the internal terms of trade that should have affected the rural sector. The national accounts show recovery of private consumption and terms of trade and a continued decline in the internal terms of trade, while the survey data show a small increase in consumption and an increase in poverty nationally. Particularly puzzling is the increase in urban poverty, as the urban poor should have benefited from declining internal terms of trade. About 20 percent of poor households in urban areas make their living primarily from agriculture, so these households may have suffered from these price effects.

2.8 Taking the period as a whole, the changes indicated by the surveys and the national accounts are consistent. Both show a strong, broad-based increase in production, well above the growth in the labor force, and improvements in labor productivity, through shifts of labor out of agriculture. Both show that growth in private consumption outpaced the growth of the population. And both show a decrease in poverty. However, the sector in which the bulk of the poor works—agriculture—recorded the slowest growth (although agricultural growth was positive in per capita terms), and both the internal and external terms of trade moved against agriculture. As a result, poverty reduction in this sector was slower than in other sectors.

RISING INEQUALITY ACCOMPANY POVERTY REDUCTION

2.9 ***Since 1992 Uganda has experienced a steady increase in inequality*** (table 2.2). The gap in mean income in rural and urban areas has widened, and inequality within both urban and rural areas has grown. The income gap between the Central Region and other regions, especially the North and the East, is widening, and inequality is widening within the Central Region.

Table 2.2: Inequality in Uganda, by Region and Consumption Quintile, 1992/93–2002/03

<i>Item</i>	<i>Mean expenditure/national average</i>				<i>Gini coefficient</i>			
	<i>1992/93</i>	<i>1997</i>	<i>1999/2000</i>	<i>2002/03</i>	<i>1992/93</i>	<i>1997</i>	<i>1999/2000</i>	<i>2002/03</i>
<i>National</i>	1.00	1.00	1.00	1.00	0.36	0.35	0.40	0.43
Rural	0.88	0.88	0.83	0.82	0.33	0.31	0.33	0.36
Urban	1.83	1.78	2.10	2.14	0.40	0.35	0.43	0.48
<i>Quintile</i>								
Poorest	0.34	0.37	0.34	0.31	0.14	0.12	0.15	0.14
Richest	2.18	2.12	2.37	2.50	0.23	0.22	0.30	0.33

Note: Quintiles calculated at the national level.

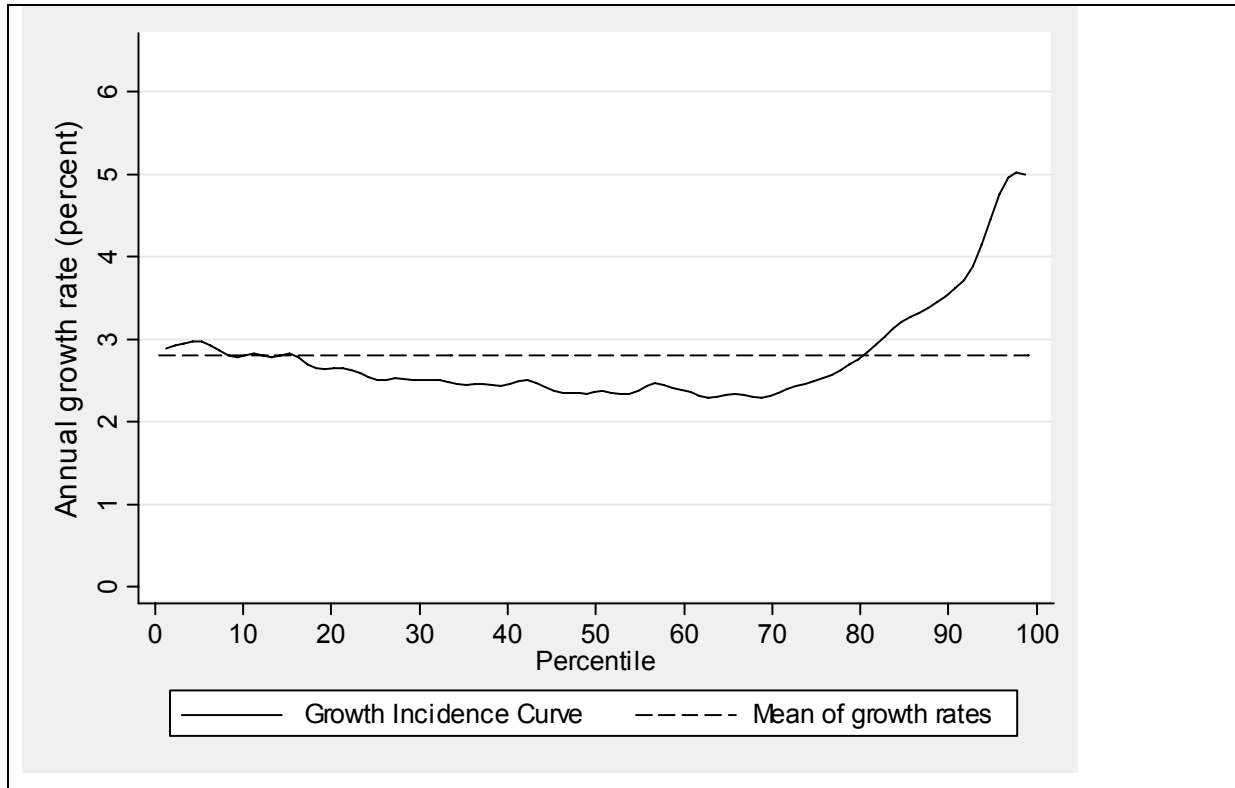
Source: Okidi and others 2004.

2.10 Changes in income distribution affect the pace of poverty reduction, because, all other things equal, high or increasing inequality reduces the benefits of growth that accrue to the poor. High inequality may also make it more difficult to attain high growth.

2.11 ***The importance of between-group inequality is increasing.*** Inequality within regions and within rural and urban areas did not increase as rapidly as the inequality between them. The education level of the household head and family size also contributed to widening inequality, as the gap in fertility rates between richer households and urban ones and the rest of the population grew (World Bank 2004a). This gap may also be one of the drivers behind widening rural-urban inequality. Uganda's Gini coefficient (0.43) is much higher than Tanzania's (0.33), and the contribution to inequality of rural/urban and regional differences as well as difference across education groups is more than twice as high in Uganda.

2.12 Quintile analysis reveals a similar trend (figure 2.2). Nationally, the bottom two quintiles correspond roughly to the poor in 2002/03. In terms of relative income growth, the bottom quintile did not fare badly, with income growing almost as fast as the mean. As only 3.9 percent of the bottom quintile is urban, this reflects relatively robust income growth in rural areas. The main increase in inequality came at the top. The mean income of the top 20 percent (57 percent of which is urban) rose much faster than the average, and inequality within the quintile rose as well.

Figure 2.2: Annual Consumption Growth Rates, by Expenditure Percentile, 1992/93–2002/03



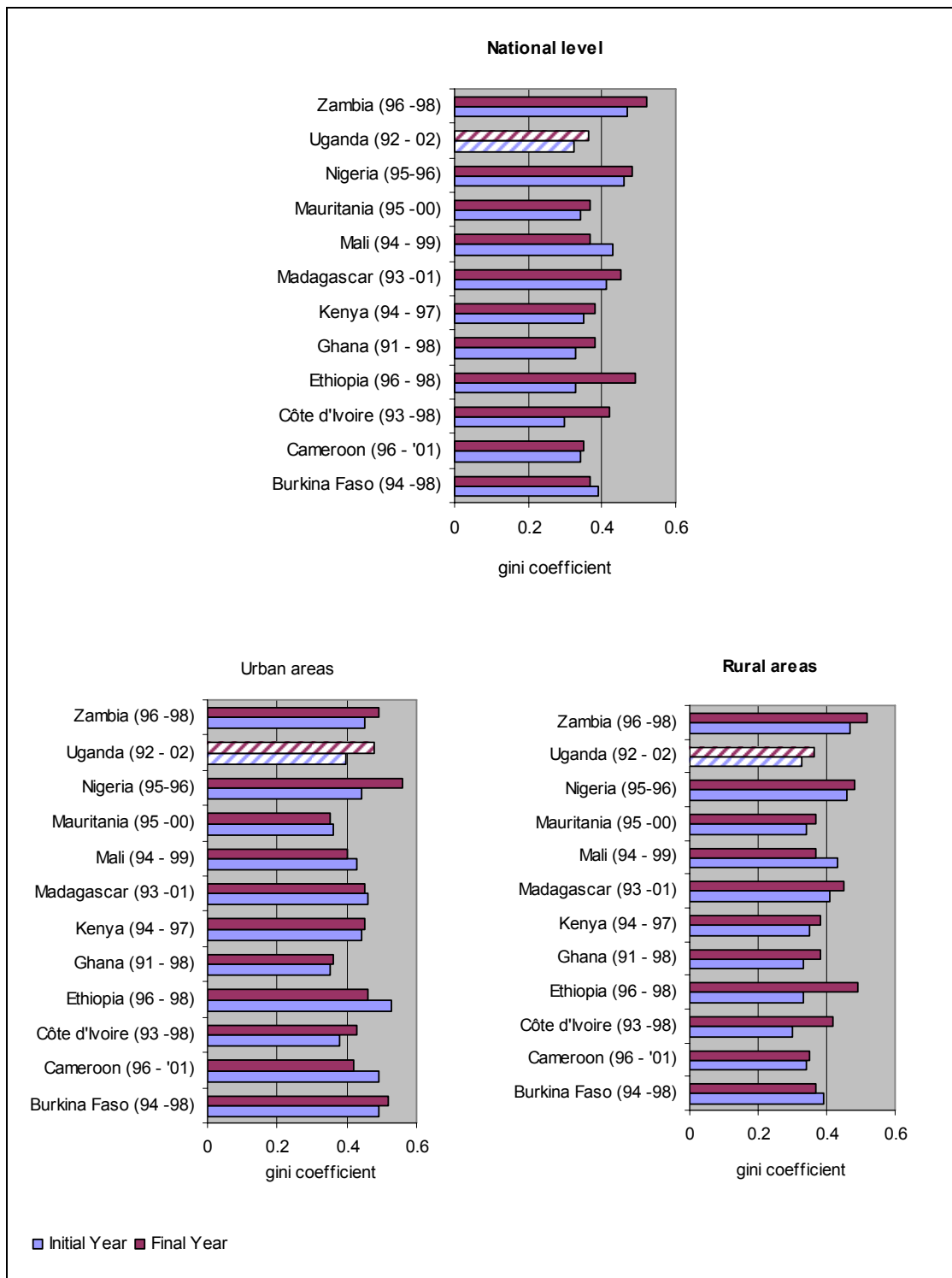
Source: Author calculations based on Okidi and others 2004. Program was provided by the POVCAL database, “a Program for Calculating Poverty Measures from Grouped Data”, available at: www.worldbank.org/lsmstools/povcal/.

2.13 Although it is not desirable, economic growth accompanied by rising inequality is not unusual. Countries that have experienced similar increases in national inequality during periods of economic growth and development include Bangladesh (1983–96), Ghana (1989–99), Mexico (1984–92), and the Philippines (1988–97).²

2.14 *Compared with other African countries, Uganda’s overall level of inequality is not high.* Urban inequality is high, while inequality in rural areas is low (figure 2.3).

² These data were provided by Martin Ravallion and can be found in the World Income Inequality Database available on the “Data on Poverty and inequality Webpage” at: the World Bank’s External Webpage: [Home](#) > [Topics](#) > [Poverty](#) > [Pro-Poor Growth & In...](#) > Pro-Poor Growth and Inequality.

Figure 2.3: National, Rural, and Urban Income Inequality in Selected Countries in Sub-Saharan Africa (Gini coefficient)



Source: World Bank. Africa standardized files.

2.13 *Inequality had a significant dampening effect on poverty reduction.* Table 2.3 shows the relative effects of growth in per capita consumption and inequality on poverty. Had Uganda been able to keep inequality constant over the whole period, poverty would have fallen by 8 more percentage points, to about 30 percent. This means that another 1.8 million people would have escaped poverty. Although the negative impact of inequality was high in some areas (such as the Central Region), income growth for the decade as a whole made up for this. However, when reported consumption growth slowed, between 1999/2000 and 2002/03, inequality increased faster than disposable income. If inequality had not increased, measured poverty would have fallen nationally by 1.4 percentage points instead of increasing by 4 percentage points during this period. The East was particularly hard hit, as even without an increase in inequality, poverty would have increased 8.7 percentage points, bringing down the national average. Sectoral shifts resulted in a slight widening of inequality among crop agriculture households and a narrowing of inequality among households engaged in manufacture and trade.

Table 2.3: Decomposition of Growth and Inequality in Uganda, Selected Years
(percent)

	1992/97		1997/2000		2000/03		1992-03	
	Growth	Inequality	Growth	Inequality	Growth	Inequality	Growth	Inequality
National	-10.3	-0.4	-16.3	5	-1.4	5.3	-26.3	8.3
Rural	-10.9	0.4	-13.3	1.5	-0.4	4.7	-23.1	5.1
Urban	-5.6	-5.5	-14.7	7.6	-1.3	3.8	-22.8	7.2
Central	-13.7	-4	-14.1	5.8	-2.6	5.1	-31.1	7.7
Eastern	-6.7	2.2	-21.8	2.5	8.7	2.3	-18.7	5.9
Northern	-9.1	-2.2	2.6	0.2	-1.4	1.1	-8.6	-0.2
Western	-10.5	0.1	-20.9	4.3	-0.1	5.3	-27.9	6.2
<i>Sector of employment</i>								
Crop agriculture	-10.5	-0.2	-17.3	3.3	9.2	2.2	-18.1	4.8
Noncrop agriculture	-10.6	-4.8	-1.4	6.2	-10.6	2.3	-23.2	4.4
Mining/construction	-0.7	-10.5	-1.3	1.7	-2.3	-0.5	-5.5	-8.1
Manufacturing	-8.2	0.2	-22.3	9.2	8.4	-3.3	-18.1	2.2
Trade	-3.6	-2.4	-12.9	5.1	8.2	-3.4	-10.2	1.2
Transport/ communications	-7.2	0.7	-15.3	1.1	0.6	4	-21.4	5.2
Government services	-12.2	-2.6	-15.2	8.6	-5.5	2.7	-32	7.8
Other services	-0.5	1.8	-20.2	5.7	0.9	6.8	-21.7	16.3
Not working	-16.1	2.1	-12.1	2.9	-2.1	-1.4	-34.1	7.5

Note: Figures show contribution to changes in poverty headcount. Negative number represents an increase in poverty.

Growth in consumption and inequality include two effects: changes in total consumption of the household and changes in household composition (number of adult equivalents). The two effects are not broken out.

Source: Okidi and others 2004.

THE DAMPENING EFFECT OF RAPID POPULATION GROWTH ON POVERTY REDUCTION

2.14 ***Rapid population growth has limited the impact of growth on poverty.***³ At 3.4 percent a year, Uganda has one of the highest population growth rates in the world. Just to keep incomes constant, Uganda must grow by more than 3 percent a year, assuming no shifts in income distribution. Uganda has been able to achieve twice this growth rate for more than a decade, realizing significant poverty reduction despite negative distributional shifts. Since the easy gains from the postwar period have been exhausted and growth has slowed, however, the drag of high population growth on poverty reduction has become more obvious.

2.15 ***The average rate of population growth hides significant differences by quintile*** (figure 2.4). Poorer households have a higher dependency ratio, and the difference between income per capita in the largest families and the smallest is rising, contributing to widening inequality. Fertility is also having an effect on population structure. In the richer urban areas, where estimated total fertility is 4.1 and falling (as a result of higher education levels among women, more urbanization, better access to contraceptives, and other factors), the proportion of the household below the age of 15 dropped rapidly in the highest quintile and the proportion of members of working age rose. Among the poorer quintiles, where fertility exceeds 8 and has been rising, the proportion of the household below age 15 has been increasing.⁴

2.16 A simple experiment highlights the impact of high population growth on poverty reduction. If annual population growth in Uganda had been equal to that in Mozambique (2.5 percent) over the 1999-2002 period, the average annual growth of private per capita consumption would have been 3.2 percent as measured by the national accounts and 1.8 percent as measured by the surveys. This calculation includes no endogenous effects of lower population growth on inequality or labor supply.

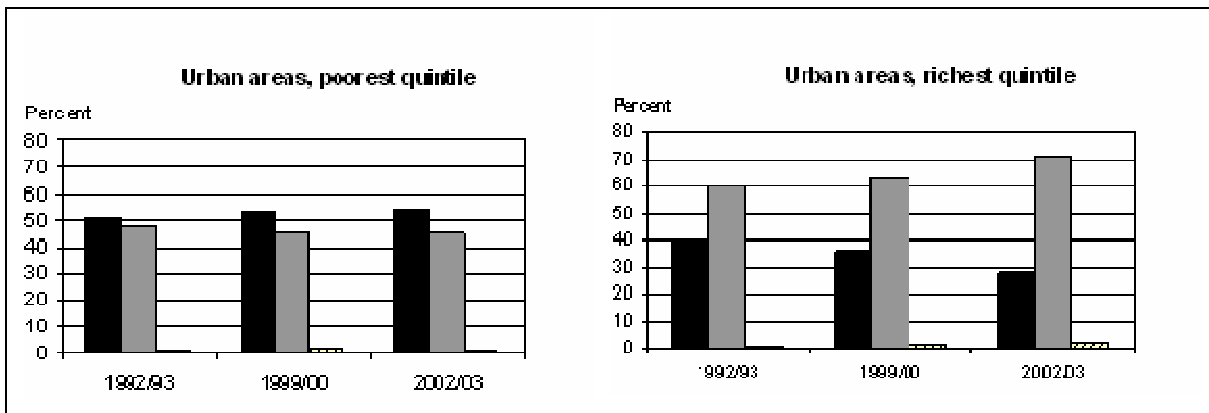
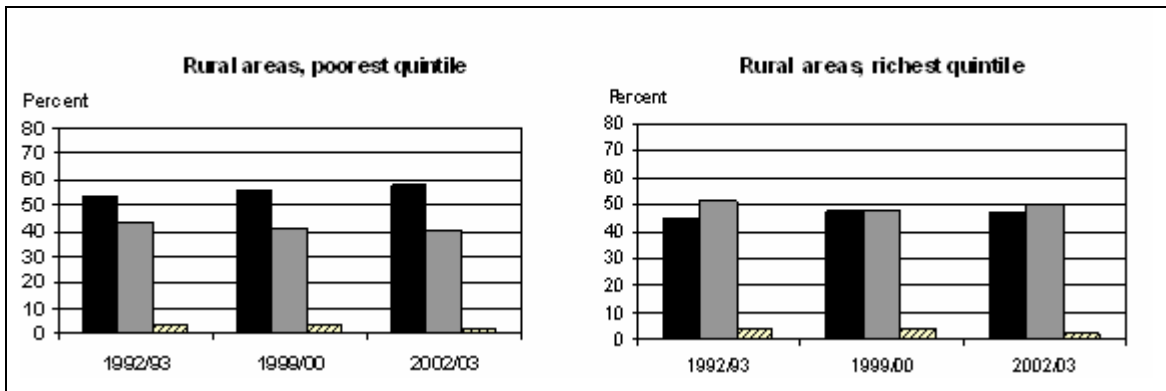
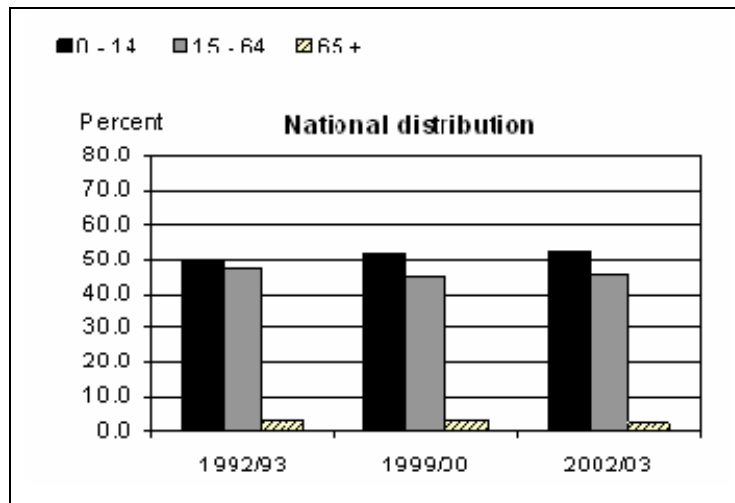
2.17 ***Studies in other regions have shown that high fertility differences contribute to rising inequality and lower growth.***⁵ If this is the case in Uganda, rising inequality is likely to continue, possibly putting a brake on growth. High fertility is also likely to reduce savings, since households have less money to save or invest after taking care of dependents. High fertility will also increase the costs of continuing to increase access to and the quality of public services, reducing the impact of growth on poverty reduction in the future.

³ Some researchers have concluded that high population growth increases overall economic growth, because there is a continued inflow of labor into the economy. While this may be true, this effect is usually outweighed by the negative effect on per capita consumption and the dependency ratio, both of which reduce household and government savings, causing growth to fall. The marginal effect of increased population on poverty reduction is thus usually negative, especially in low-income countries (Klasen 2004a). High fertility also reduces female labor force participation, slowing economic growth.

⁴ See the Uganda Country Report, available at <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTHEALTHNUTRITIONANDPOPULATION/EXTPAH/0,,menuPK:400482~pagePK:149018~piPK:149093~theSitePK:400476,00.html>.

⁵ The literature is summarized in Klasen (2004a), who notes that several researchers have observed a theoretical and empirical connection between large differences in fertility and increases in inequality and thus a lower rate of economic growth. The connection between inequality and growth is still being debated (see Lopez 2004).

Figure 2.4: Age Distribution, by Area and Consumption Quintile, 1992/93–2002/2003



Source: Author calculations based on 1992/93 Integrated Household Survey and 1999/2000 and 2002/03 Ugandan National Household Surveys.

CONCLUSION

2.18 Uganda enjoyed a generally good macro environment for poverty reduction between 1992 and 2002, with strong private consumption growth throughout the period. The two unfavorable trends were the declining external terms of trade and high population growth, especially among the poorest households. Uganda has little control over the terms of trade, but households seem to have reacted by diversifying their sources of labor income out of agriculture; within agriculture, some households were able to shift to higher value products. Reducing the fertility differential between poor and nonpoor households needs to be an important element in the national policy mix to avoid widening inequality and deepening poverty.

3. HOUSEHOLD-LEVEL DETERMINANTS OF POVERTY AND VULNERABILITY

3.1 This chapter examines the characteristics of households with the highest and lowest standards of living and analyzes how these characteristics changed over the decade. After reviewing the basic demographics of poverty, it analyzes households based on their relationship to the labor market and livelihood strategies, access to services, and vulnerability. It then uses multivariate techniques to analyze the various effects together.

ECONOMIC CHARACTERISTICS OF HOUSEHOLDS BY INCOME GROUP

3.2 *The demographic and human capital characteristics of the poorest and richest households remained roughly constant between 1992/93 and 2002/03.*⁶⁷ By 2002/03 the lowest quintile was 97 percent rural, while the richest quintile was more than 40 percent urban (the urban share in Uganda's population is less than 20 percent). Much of this gap was driven by the gap between rural and urban areas. The lowest quintile has the largest households, the largest number of children, and the highest demographic dependency ratio. These households are slightly more likely to be headed by women and more likely to be caring for an orphan.

3.3 For the vast majority of households, the largest source of income is the return on household labor—through self-employment, selling of products or services, or wage employment.⁸ How did households deploy their income-earning resources over the decade? How did household behavior change as the structure of the economy changed?

3.4 *Labor moved out of agriculture*, possibly in response to the falling terms of trade for agriculture, and other sectors absorbed the labor released. The trend was particularly sharp for men: the male agricultural labor force fell absolutely, while the female labor force grew, albeit more slowly than the total labor force (table 3.1). Although men are more likely to work in all nonagricultural sectors, women have moved rapidly into industry, trade, and transportation, and more of the new government sector jobs went to women than to men.

3.5 *While the fastest growing type of employment was nonagricultural self-employment, the private formal sector generated many jobs as well.* As a result, even though the government sector shed jobs, the number of jobs in the formal sector grew slightly faster than the number of jobs in the informal sector (table 3.2). As formal sector jobs tend to be both better paying and more secure (lower income risk), this change may have contributed to the reduction in poverty. Decentralization reduced the share of government employees in urban areas.⁹

⁷This chapter uses relative measures of income (quintiles) rather than a poverty line. A relative poverty line can be more useful than an absolute one if there is a systematic bias in the consumption measurement in any survey. In this chapter, the terms "income" and "consumption" are used interchangeably, as household income was measured by consumption in the survey.

⁸This cannot be demonstrated empirically in Uganda, because detailed questions on the structure of household income were not included in the 2002/03 survey. However, this assumption is widely accepted based on evidence from other countries (see Klugman 2002).

⁹ Some of the decline in the government sector relative to the private formal sector represented privatization, not net new job creation. Nonetheless, when the formal sector as a whole is considered, job growth was strong.

Table 3.1: Type of Employment, by Gender, 1992/93–2002/03

(percent)

<i>Type of employment</i>	<i>Share of all workers</i>		<i>Percent female</i>		<i>Percent urban</i>		<i>Annual growth rate of employment</i>
	<i>1992/93</i>	<i>2002/03</i>	<i>1992/93</i>	<i>2002/03</i>	<i>1992/93</i>	<i>2002/03</i>	<i>1992/93–2002/03</i>
Self-employed in agriculture	46.6	41.3	48.3	49.4	2.0	6.8	1.5
Self-employed in other sector	2.6	16.9	23.5	39.8	32.7	33.2	23.7
Government employee	4.6	3.0	26.2	28.9	34.5	27.6	-1.4
Private employee	8.3	10.1	18.7	26.2	38.1	39.5	4.8
Unpaid family or domestic worker	37.9	28.7	77.1	82.0	9.5	9.2	-0.1
All economically active	100.0	100.0	55.1	54.2	10.2	15.9	2.8

Note: Data include all working individuals over the age of 10, excluding those for whom age some data were missing.

Source: Author calculations based on 1992/93 Integrated Household Survey and 2002/03 Ugandan National Household Survey.

Table 3.2: Growth of Informal and Formal Sectors, 1992/93–2002/03

(percent)

<i>Sector</i>	<i>Percentage of all workers</i>		<i>Annual growth rate of employment,</i>
	<i>1992/93</i>	<i>2002/03</i>	<i>1992/93–2002/03</i>
Formal	12.9	13.1	3.0
Informal (including agriculture)	87.1	86.9	2.7
All economically active	100.0	100.0	2.8

Source: Author calculations based on the 1992/93 Integrated Household Survey and the 1999/2000, and 2002/03 Ugandan National Household Surveys

Table 3.3: Average Annual Growth in Labor Force, by Level of Education and Gender, 1992/93–2002/03

(percent)

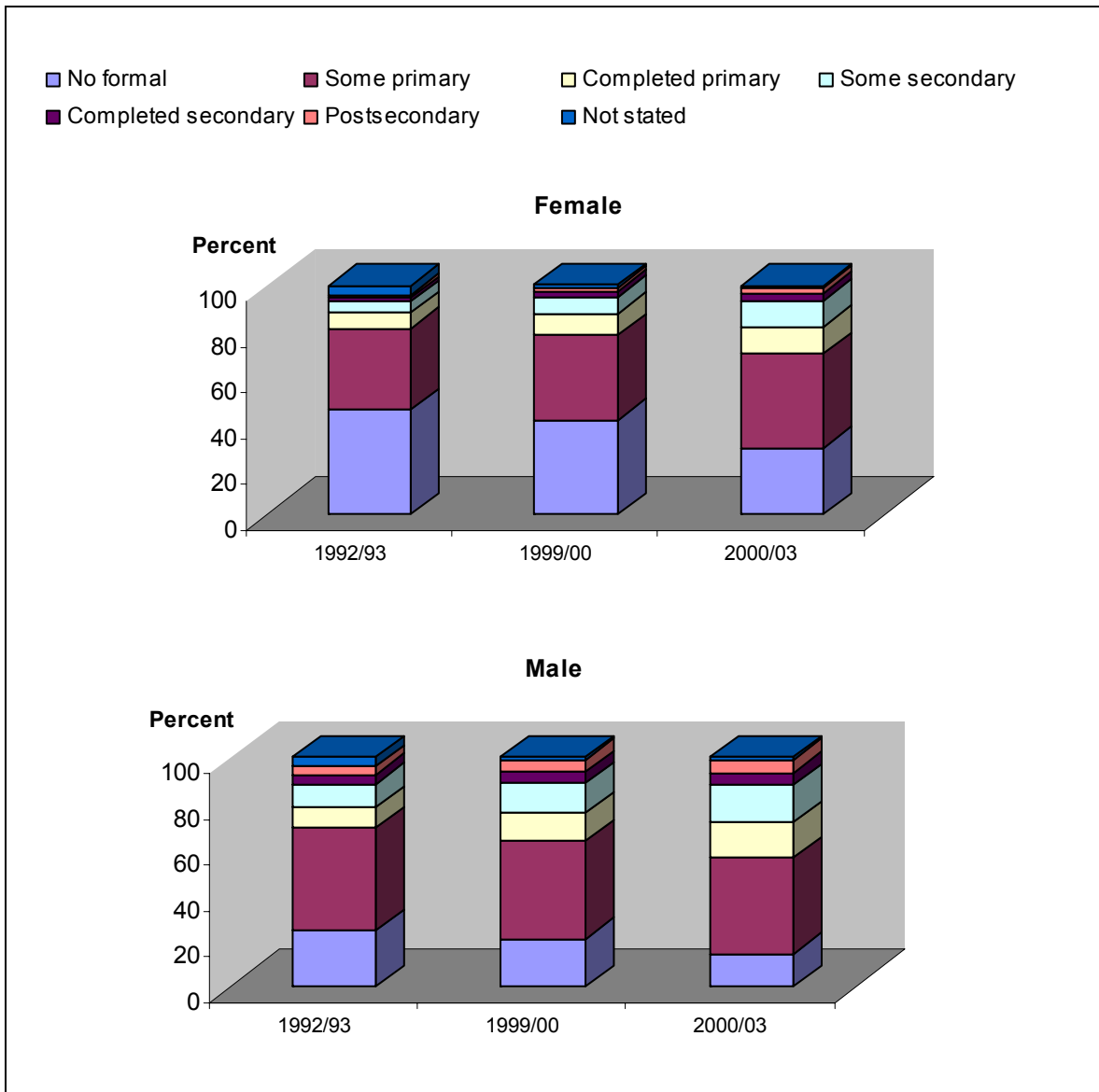
<i>Level of education</i>	<i>1992/93–2002/03</i>			<i>1999/2000–2002/03</i>		
	<i>Males</i>	<i>Females</i>	<i>All</i>	<i>Males</i>	<i>Females</i>	<i>All</i>
No formal	-3.7	-2.8	-3.1	-9.6	-9.2	-9.3
Some primary	1.0	3.3	2.2	2.0	6.1	4.1
Completed primary	7.8	7.3	7.6	11.0	11.3	11.1
Some secondary	6.4	10.4	8.0	10.6	17.2	13.4
Completed secondary	4.5	9.8	6.4	7.8	12.9	9.8
Postsecondary	6.5	8.5	7.1	4.9	17.4	8.6
Not stated	-11.2	-11.6	-11.4	-0.1	2.3	1.2
Total	1.7	1.8	1.8	2.8	2.3	2.5

Note: Data include all individuals older than 10 who are not enrolled in school.

Source: Author calculations based on 1992/93 Integrated Household Survey and 1999/2000 and 2002/03 Ugandan National Household Surveys.

3.6 Educational attainment of the labor force increased (figure 3.1). The share of the labor force with secondary education nearly doubled, as did the share of the labor force with postsecondary education. Most striking are the gains for women: the share of the female labor force with no education fell from 45 percent to 29 percent—a benefit of universal primary education. This improvement in gender equity can be expected to have a long-run effect on growth and poverty (Klasen 2004b).

Figure 3.1: Level of Education, by Gender, 1992/93—2002/03



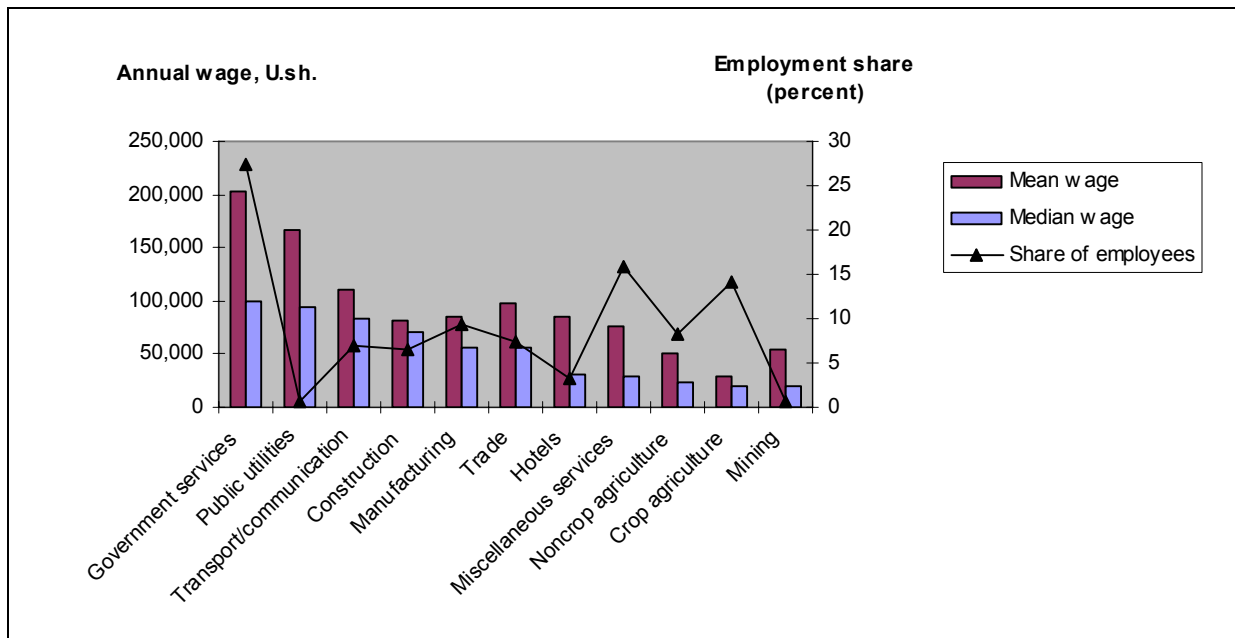
Note: Data include all individuals older than 10 who are not enrolled in school.

Source: Author calculations based on 1992/93 Integrated Household Survey and the 1999/2000 and 2002/03 Ugandan National Household Surveys.

3.7 Despite gains in secondary and postsecondary education, only a small share of Uganda’s labor force has postprimary education. Some labor force participants are trying to make up for this deficiency by enrolling in vocational training. In 2002/03 roughly 17 percent of the labor force had received some sort of vocational training, two-thirds of them informally. Construction, public utilities, and miscellaneous services were the sectors most like to employ workers with formal and informal vocational training. Most graduates of vocational training schools lived in urban areas and fell in the middle quintile, suggesting some access issues for this type of training.

3.8 *About 1.1 million labor force participants (13 percent of the total economically active population) earned regular wages in 2002/03* (figure 3.2). The large difference between the mean and the median indicates that a small number of people at the top earned high wages. In both 1999/2000 and 2003/03, government and public utilities had the highest mean and median wages. In both sectors the difference between the mean and the median wage are large and growing, although the number of employees in public utilities is very small. The same pattern emerges in hotels and miscellaneous services (real estate, finance, arts and advertising). The share of total employment rose in the government sector, the largest sector in wage employment; in miscellaneous services; and in noncrop agriculture. Large mean real wage gains showed up in the government sector, construction, hotels, and noncrop agriculture, while the mean wage in miscellaneous services fell sharply.

Figure 3.2: Real Annual Wages and Employment Shares for Paid Employment, by Sector, 2002/03



Source: Author calculations based on 2002/03 Ugandan National Household Survey.

3.9 Sectoral wage differences are usually the result of a number of factors, including the human capital of the employees, the capital intensity of the firm or the extent of firm-specific knowledge required to perform the job (which may result in higher “efficiency” wages paid to retain employees), the degree of competition in the output market (low competition tends to result in higher wages), and the difficulty of the job. Regression analysis can be used to estimate the importance of human capital relative to other factors. Figures 3.3 and A 2.2 (see Appendix 2) show regression results for 1999/2000 and 2002/03.¹⁰ The dependent variable, monthly wages, is measured very differently in the two surveys, so the figures are not comparable. The 1999/2000 survey asked about yearly wages and months worked, while the 2002/03 survey asked about monthly wages. The specification is an extended Mincerian one, including the human

¹⁰ Figure 3.3 shows only those variables which were significant. The full regression equations are in the Appendix, table A2.8.

capital variables age and education as well as variables controlling for location, sector of activity, and marital status. Levels of education were used, because this is how the data were collected and this specification picks up the premium associated with completing a level of education. Separate regressions were computed for male and female wage earners.

3.10 *For wage earners the difference in the average remuneration between no education and incomplete primary is undetectable, the completion of primary education provides on average only a small benefit to females and no benefit to males*, and overall the relative returns to completing all levels of education are falling. These trends are probably as the result of the expansion of education, especially at the primary level.¹¹ In addition, as early universal primary education graduates enter the labor force, completion of primary education is no longer a “selection” variable indicating other (unmeasurable) traits. It is also possible that the quality of primary education fell as universal primary education was implemented.

Box 3.1: Who is in the labor force?

Household living standards are determined largely by the number and characteristics of the labor force participants, and what they earn from this economic activity. This means we need to be able to identify the earners and what they earn. Measuring this in an economy such as Uganda where most households live at least in part from home production is particularly tricky.

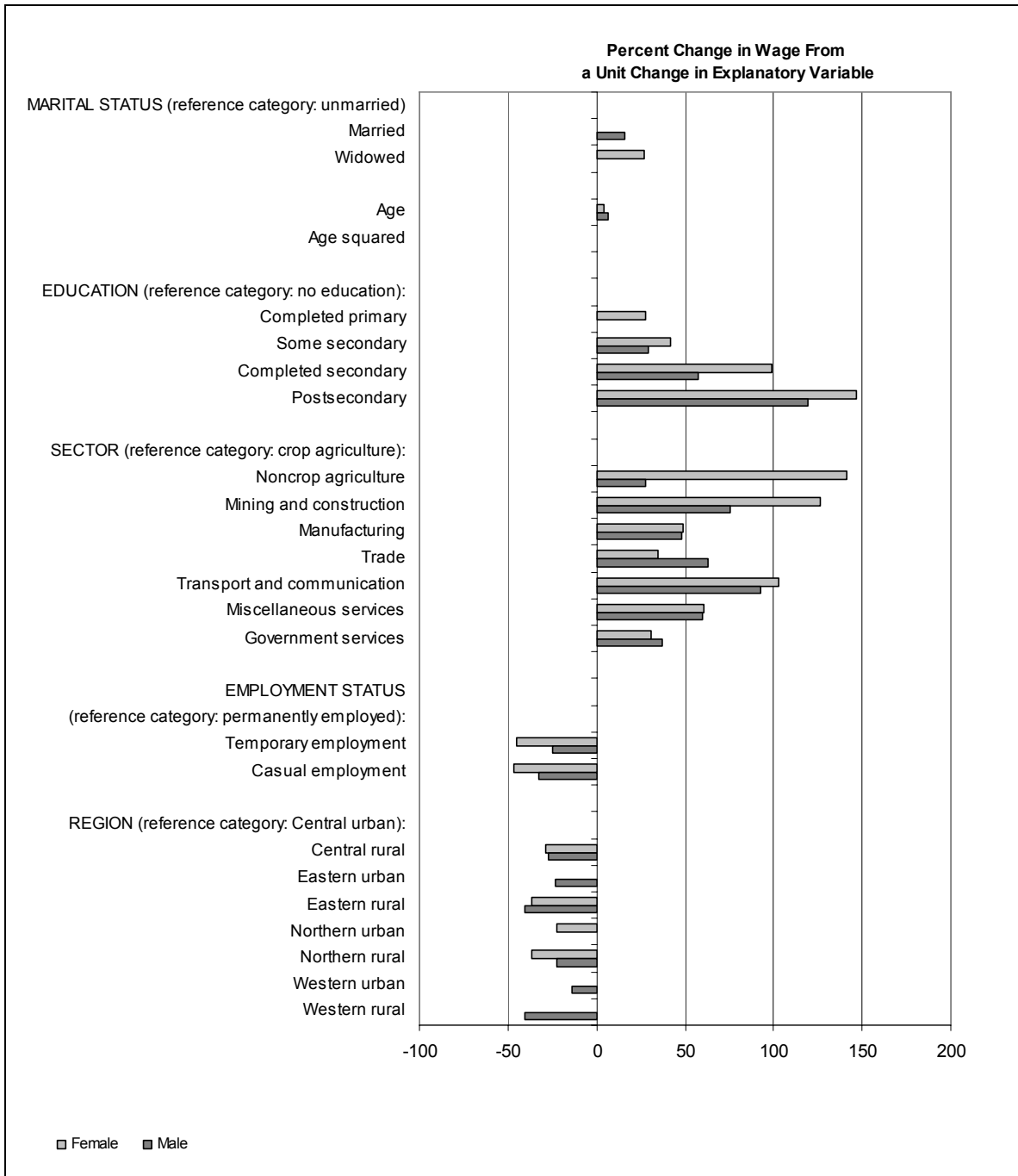
The International Labor Organization has defined the labor force as, among others, “persons engaged in the production of economic goods and services for own and household consumption . . . if such production comprises an important contribution to the total consumption of the household” (Thirteenth International Conference of Labor Statisticians, 1982). This is consistent with the definition of consumption in Ugandan household surveys, which includes home-produced items such as home grown food in the consumption aggregate. It is also consistent with the National Accounts definition of production, which includes home produced goods and services.

In contrast, the labor force module of the Uganda National Household Surveys does not include such an inclusive measure of economic activity. The questionnaire asks the household respondent to classify household members as “employed” or “not active”. As a result, many women who spend their day at home “co-producing”, meaning growing subsistence food or fetching water and firewood for the household *along with* looking after children or other household members, are identified as “domestic workers” and thus considered “not economically active” – in other words, out of the labor force. This means that the percent of the population in the labor force as well as the percent of the labor force working in agriculture are underestimated. In 1992, our calculations suggest that the labor force was underestimated by approximately 12 percentage points, in 1999 by 9 percentage points and in 2002 by 5 percent. As the classification of women’s labor force participation was clearly not consistent over time, the exclusion of domestic workers from the definition of the labor force led the growth rate of the labor force to be overestimated. When domestic workers are excluded, the labor force is estimated to have grown on average 3.0 percent per year between 1992 and 2003. When they are included, the estimated growth rate drops to 2.1 percent.

In this analysis, we recoded all women who were listed as inactive and performing domestic tasks as labor force participants working in the agricultural sector. While this may have slightly overestimated the labor force, at least we could be sure of consistency over time.

¹¹ If physical capital and technology accumulated at the rate of growth of human capital, returns would necessarily fall with the expansion of education. This does not seem to be happening.

Figure 3.3: Regression Results: Determinants of Wages for Paid Employment, by Gender, 2002/2003



Source: Uganda National Household Survey 2002/03. Dependent variable: ln (wages)

Note: Bars indicate the percent change in wages associated with a one unit change in the explanatory variable. Coefficients insignificant at the 95 percent level have been set to 0. Control variables thus not displayed in the graph because they were not significant are: divorced/separated (dummy), some primary education (dummy), and education not stated (dummy).

3.11 *All nonagricultural sectors pay a premium over agriculture for wage labor.* This result is not surprising, as agricultural labor tends to be low paid. Most sector variables are also declining, suggesting that any part of this variable reflecting low competition that creates rents is also declining. The 2002/03 survey divided wage employment into permanent, temporary, and casual (day) labor. Roughly one-third of both men and women were temporary workers, and 15 percent of women and 23 percent of men were day laborers. Not surprisingly, there is a high discount on the predicted wages of these categories. What is surprising is the size of the difference for women compared with men. Male temporary workers can expect to earn 25 percent less in wages, but female temporary workers can expect to earn 45 percent less.

3.12 On average women made 30 percent less than men in 2003.¹² Comparing the coefficients, the main contributors to the overall difference in structure between men and women are that men earn a premium for being married and for experience (in 2002/03), while women receive slightly higher returns to education but get no benefit from being married and a higher discount for not being permanent employees. Women's wages were fairly similar across urban areas and in the West and the Center in 2002/03 while men seem to have earned the highest wages in the Central urban corridor. The reasons for these differences are not clear; in some cases the results may reflect the smaller number of observations. However, higher wages on the margin for married men are not unusual, as they seem to be able to work longer hours and have higher productivity after marriage.

3.13 *People employed in agriculture tend to be in the poorest households, while those employed in government tend to be clustered in higher income groups* (table A2.10). While the structure of employment has changed, the mapping of this employment into quintiles has not: even in 2002/03, 19 percent of the agricultural labor force was in the fourth quintile. The share of the trade and transportation sectors in employment showed a modest increase in the middle quintiles, and government services employment had become more concentrated at the top. Changes in the household portfolio of employment occurred primarily in the upper quintile (and therefore more often in the urban sectors), as those who remained primarily self-employed in agriculture remained in the lower quintiles. Changes were seen only in the government sector: over time households in which a member worked for the government became less likely to fall into the lowest two quintiles.

3.14 The movement of labor out of agriculture is even more prominent among heads of households. It is difficult to use cross-sectional data to trace what sector household heads have moved into, but undoubtedly many have moved into nonagricultural self-employment, primarily trading and manufacturing. Some have also moved into noncrop agriculture, including fishing and livestock. Quintile analysis in rural areas shows that the shift out of crop agriculture is larger as one moves up the income spectrum. It is also larger in the better off regions of the West and Center.

3.15 *One of the key livelihood strategies households appear to adopt is to create a nonfarm enterprise.* Households with higher incomes were more likely to report an enterprise throughout

¹² This result comes from our pooled regression (not shown); the disadvantage was 20 percent in 1999/00.

the decade, but the largest change occurred in the middle quintiles.¹³ These enterprises are very small—90 percent are described as self-employment or self-employment plus one unpaid family employee. A little less than half of proprietors are women.¹⁴ The growth in nonfarm activity mirrors the increasing share of agricultural production marketed (see chapter 2), as well as the decline in home-produced goods as a share of total consumption.¹⁵

3.16 Table 3.4 and figure 3.4 sum up the cross-sectional evidence on livelihood shifts. Households in crop agriculture started out the period much poorer than other households, so the poverty rate and poverty gap were highest among these households throughout the decade. But these households improved their relative position, as their contribution to total poverty fell. At the same time, the contribution to poverty of nonagricultural self-employed households (primarily in the manufacturing and trading sectors) and the share of the poorest households with an enterprise rose. *These results suggest that while the shift out of agriculture was an effective strategy for many, it does not seem to have worked for some households.* In the Eastern Region, for example, the share of households with a nonfarm enterprise grew 75 percent in all quintiles and 69 percent in the bottom quintile in the most recent period from 1999 to 2002/03. *However, it is not obvious that households would have been better off had they had not diversified out of crop agriculture*—on average, diversification seems to be a good strategy, as confirmed below, using panel data evidence. What is not clear from these data is whether richer households were better able to diversify or whether diversification pushed households up the income spectrum.

¹³ In the quintile analysis, the deciles are formed separately for each group. To relate this to the poverty analysis above, consider the poverty rate in the group. In rural areas the poverty rate is 41.7 percent, indicating that almost all of the poor are in the first two quintiles. In urban areas the poverty rate is 12.2 percent, indicating that almost all of the poor are in the first decile.

¹⁴ This finding is not inconsistent with the high share of women in agriculture. The “sector of activity” question asks about primary sector. For most rural women, the enterprise seems to be their secondary activity.

¹⁵ The share of home-produced food appears to have declined dramatically between 1999/2000 and 2002/03 in all quintiles except the poorest. However, confidence in the 1999/2000 consumption estimates is not strong enough to justify reporting the data here.

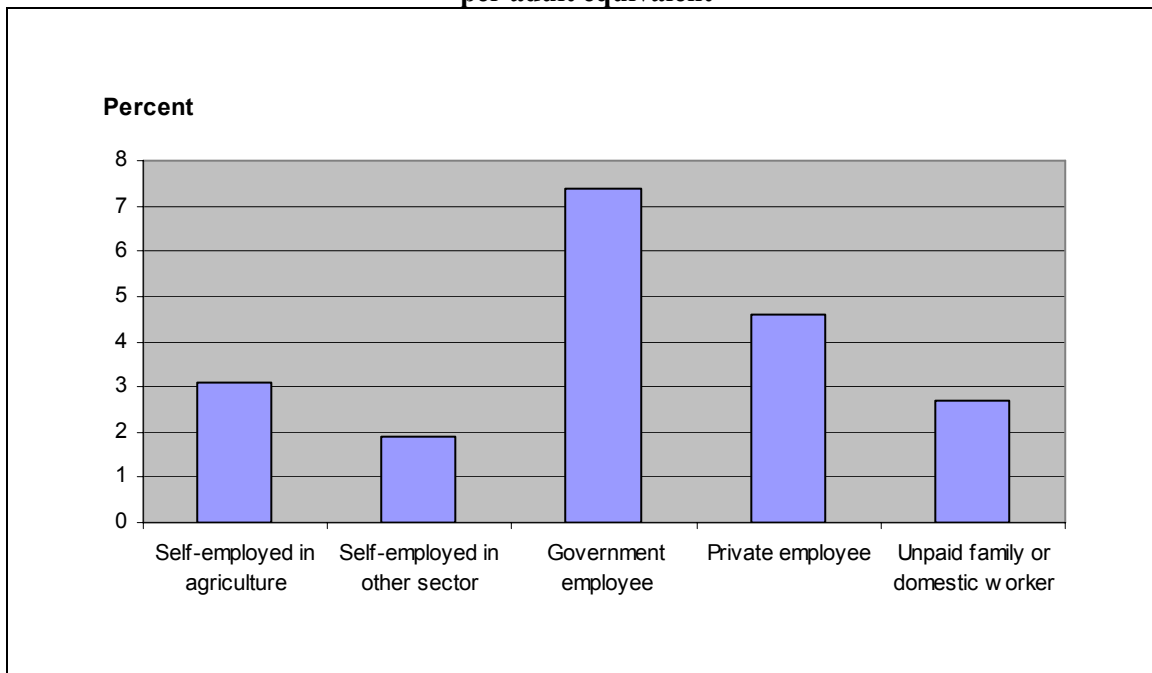
Table 3.4: Contribution to Poverty Headcount by Sector, 1992/03–2002/03

<i>Sector</i>	<i>1992/93</i>	<i>1999/2000</i>	<i>2002/03</i>
Crop agriculture	79.0	78.0	69.9
Noncrop agriculture	2.7	3.9	4.9
Mining	0.1	0.6	0.2
Manufacturing	3.0	2.0	5.4
Public utilities	0.1	0.0	0.0
Construction	1.0	0.9	1.1
Trade	3.3	2.7	6.5
Hotels	0.2	0.4	1.3
Transport/communications	0.9	0.9	1.3
Miscellaneous services	1.0	1.7	1.8
Government services	4.9	2.5	2.0
Not working	3.7	6.3	5.8

Note: Households categorized based on the main sector in which the household head works.

Source: Author calculations based on Appleton and Ssewanyana 2003 and the 1992/93 Integrated Household Survey.

Figure 3.4: Average Annual Growth in Consumption by Type of Employment, per adult equivalent



Source: Author calculations based on 1992/93 Integrated Household Survey and 1999/2000 and 2002/03 Ugandan National Household Surveys.

3.17 *Internal migration has been an important livelihood strategy*, especially within the Central Region (table 3.6). By 2002/03 half of household heads had migrated out of their district of birth, and 44 percent of households living in rural areas had migrated at least once. However, most of these migrations had taken place long in the past. Only 10 percent of household heads had migrated in the past four years. For all migrants, household heads in the richest quintile were more likely than those in the poorest quintile to report a recent migration. Nonurban migrants were thus unlikely to be poor, either because they need to be richer in order to migrate or

because migration improves their monetary welfare. In urban areas 10 percent of the poorest quintile are migrants.

Table 3.5: Migration of Household Head between 1998 and 2003, by Household Consumption Quintile and Region

(percent)

Region	Poorest quintile			Richest quintile			All quintiles		
	Never	Once	More than once	Never	Once	More than once	Never	Once	More than once
National Area	97.4	2.6	0.1	80.5	17.8	1.7	91.5	7.9	0.6
Rural	97.6	2.4	0.1	89.2	10.1	0.7	94.8	5.0	0.2
Urban	89.7	10.2	0.2	64.5	31.0	4.5	75.5	22.0	2.6
Region									
Central	91.9	7.9	0.2	69.5	27.0	3.5	82.6	15.7	1.6
Eastern	99.1	0.9	0.0	90.9	8.1	1.1	96.0	3.6	0.4
Northern	98.3	1.7	0.0	93.5	5.8	0.7	97.0	2.8	0.2
Western	97.4	2.6	0.0	89.4	10.5	0.1	94.0	6.0	0.0

Note: Moves abroad and moves within the district, subcounty, or village are excluded. The survey does not capture internally displaced persons. Figures are based on all districts in Uganda.

Source: Author calculations based on 2002/03 Ugandan National Household Survey.

3.18 ***Interregional and rural to urban migration were the exceptions: the majority of migrants remained within their own region or remained in rural areas.*** As the most popular destination is the richer Central Region, it is not surprising that households headed by migrants tend to be found more often in the upper quintiles in this region: 30.5 percent of heads in the top quintile had migrated, compared with 8.1 percent in the lowest quintile (table 3.5). The most common reasons cited for migrating are economic. 12.6 percent of migrants in the Northern Region cited escaping insecurity—7 times the percentage for migrants nationwide. The data do not reveal whether migration was a good livelihood strategy. However, migration was often undertaken for economic reasons and associated with higher household consumption.

3.19 In sum, analysis of livelihood strategies offers some explanations for Uganda's poverty and inequality trends. Even in 2002/2003, most households engaged in agriculture as a primary or secondary activity. For some farmers, agricultural growth was strong enough to boost their consumption and let them move out of poverty. For others increased incomes from agriculture lessened the depth and severity of poverty but left them poor nonetheless. A key livelihood strategy was to diversify income sources. Men were more likely than women to move out of agriculture as their primary activity; in rural areas most moved into small scale self-employment activities.¹⁶ The reasons for the strong gender bias in agriculture are unclear. It may be that women lack opportunities or a convenient way to combine economic activities with childcare. Engaging in subsistence agriculture (that is, production that generates little cash income) could leave women with less control over household resources.

¹⁶ Rural nonfarm income has been shown to be related to poverty reduction in Ghana and Uganda (Canagarajah, Newman, and Bhattamishra 2001).

3.20 ***Formal sector income is associated with higher household welfare***, especially in service sectors and for individuals with skills. Whether households that were able to derive an income from the formal sector became richer or whether higher income households had attributes that are correlated with well-paying formal sector jobs is not known. But the increasing concentration of this part of the labor force in the highest quintile and the high returns to this type of employment is increasing inequality.

ACCESS TO SERVICES

3.21 Poverty is a multidimensional phenomenon. It includes not only deprivation caused by lack of income but also deprivation caused by lack of access to markets, goods, and services.

3.22 ***Uganda has made significant progress in improving access to public services, especially in rural areas***. Progress has been particularly striking in education (table 3.6). Uganda increased the number of schools in rural areas between 1992/93 and 2002/03, raising the percentage of the rural population in the bottom consumption quintile with a primary school within the local community from 27 percent to 40 percent. Secondary school proximity also increased, and student-teacher ratios declined in all quintiles in rural areas.

3.23 ***Physical access to both primary and secondary school improved in urban areas***, but rapid population growth and the universal primary education policy swelled student ranks so that the student-teacher ratio rose. Primary school enrollments increased in the lowest quintiles, in both urban and rural areas, for both boys and girls (table 3.7). Research by Kraybill (2005) suggests that the figures in table 3.7 are understated, as many rural households do not let their children start school until age seven or eight, because of the long distances the children have to walk to get to school. In the bottom quintile, only half of all six-year-olds were enrolled in school in 2002/03, but by age nine more than 90 percent were enrolled. These children tend to stay in school once they get there: in the bottom quintile, only 2 percent of children 6–12 dropped out. Once rural children reach 14, however, the drop-out rate increases sharply. Reasons why poor children drop out include the cost of attending school, which explains half of all drop-outs among Ugandan students 13–16, and shocks to the household (becoming orphaned or experiencing a family calamity). This suggests that measures to improve access need to focus on cost, especially for secondary school.

Table 3.6: Distance to Primary and Secondary School in Rural and Urban Areas, 1992/93 and 2002/03

<i>Item</i>	<i>Poorest quintile</i>		<i>Richest quintile</i>		<i>All quintiles</i>	
	<i>1992/93</i>	<i>2002/03</i>	<i>1992/93</i>	<i>2002/03</i>	<i>1992/93</i>	<i>2002/03</i>
<i>Distance to primary school</i>						
<i>Rural areas</i>						
Within local community	27	40	32	49	32	43
Within 3 kilometers	53	48	53	45	52	48
More than 3 kilometers	19	12	15	6	16	8
<i>Urban areas</i>						
Within local community	2	6	8	17	5	10
Within 3 kilometers	25	30	23	48	23	42
More than 3 kilometers	73	64	69	35	72	49
<i>Distance to secondary school</i>						
<i>Rural areas</i>						
Within local community	29	57	24	64	27	62
Within 3 kilometers	66	42	63	36	63	38
More than 3 kilometers	5	1	13	0	10	0
<i>Urban areas</i>						
Within local community	7	27	6	27	6	29
Within 3 kilometers	70	66	73	71	71	69
More than 3 kilometers	23	7	20	2	23	3
<i>Student-teacher ratio in primary school</i>						
Rural areas	84	59	72	52	78	55
Urban areas	36	56	36	44	36	47

Source: Author calculations based on 1992/93 Integrated Household Survey and 2002/03 Ugandan National Household Survey.

Table 3.7: Net Primary School Enrollment, by Gender and Consumption Quintile, 1992/93–2002/03

<i>Quintile</i>	<i>(percent)</i>			
	<i>Girls</i>		<i>Boys</i>	
	<i>1992/93</i>	<i>2002/03</i>	<i>1992/93</i>	<i>2002/03</i>
<i>National</i>				
Poorest	41.1	76.6	49.0	76.0
Richest	75.3	90.9	80.0	90.0
All	58.9	85.0	63.6	84.2
<i>Rural</i>				
Poorest	39.9	75.0	48.6	75.7
Richest	72.7	91.9	75.8	88.0
All	57.4	84.7	61.9	83.6
<i>Urban</i>				
Poorest	59.6	84.2	63.3	84.9
Richest	94.6	91.0	88.3	89.9
All	69.8	87.7	77.7	89.2
<i>Region</i>				
Central	69.1	85.3	69.0	85.1
Eastern	62.0	89.7	66.7	89.4
Northern	39.7	72.5	54.4	73.5
Western	60.4	88.0	62.3	84.3

Note: Net enrollment is defined as the total number children 6–12 currently enrolled in school as a share of the total population 6–12. Net enrollment rates for 1992/93 were obtained without excluding districts excluded in the 1999/2000 survey.

Source: Author calculations based on the 1992/93, 1999/2000, and 2002/03 Ugandan National Household Surveys.

Table 3.8: Access to Health in Rural and Urban Areas, 1992/93 and 2002/03

<i>Item</i>	<i>Poorest quintile</i>		<i>Richest quintile</i>		<i>All quintiles</i>	
	<i>1992/93</i>	<i>2002/03</i>	<i>1992/93</i>	<i>2002/03</i>	<i>1992/93</i>	<i>2002/03</i>
<i>Access to government hospital or clinic</i>						
<i>Rural areas</i>						
Within local community	6	10	9	4	7	6
Within 3 kilometers	21	66	34	56	29	65
More than 3 kilometers	73	24	57	40	64	29
<i>Urban areas</i>						
Within local community	6	10	9	4	7	6
Within 3 kilometers	21	66	34	56	29	65
More than 3 kilometers	73	24	57	40	64	29

Note: The 1992/93 Integrated Household Survey does not distinguish between government and private hospitals and clinics.

Source: Author calculations based on 1992/93 Integrated Household Survey and 2002/03 Ugandan National Household Survey.

3.24 Progress has also been rapid in improving physical access to health services. The number of people living in households with a government hospital or clinic within three kilometers more than doubled in rural areas (table 3.8). One indicator of the increase in access is the fact that relative to early surveys, respondents in the bottom quintile in the 2002/03 survey were much less likely to report avoiding going to a clinic when ill.

3.25 *Although access has increased, improvement in health outcomes has been limited* (table 3.9).¹⁷ For the country as a whole, outcomes improved only slightly over the decade, putting Uganda at about the average for Sub-Saharan Africa in terms of infant and under-five mortality. These national figures hide significant divergences, however, with some indicators in the lowest quintile more than twice as high as in the upper quintiles. This divergence is driven mostly by the rural-urban gap, as there are few urban residents in the lowest three quintiles.

Table 3.9: Selected Health Indicators, by Consumption Quintile and Rural-Urban Gap, 1995 and 2000

Item	Poorest Quintile		Richest Quintile		All quintiles		Rural/urban gap	
	1995	2000	1995	2000	1995	2000	1995	2000
Under-five mortality rate	192.2	105.7	113.4	106.4	156.2	156.5	1.2	1.6
Infant mortality	109.0	191.8	63.2	60.2	86.1	89.4	1.2	1.7
Moderate stunting	24.2	25.1	16.4	18.0	23.3	23.8	1.7	1.3
Severe stunting	18.2	18.2	9.3	7.1	15.0	14.8	2.0	2.2
Moderate underweight	22.1	21.4	12.3	9.8	18.9	17.6	1.6	1.7
Severe underweight	8.9	6.0	3.3	1.9	6.7	4.9	2.4	2.9
Fertility	7.5	8.5	5.4	4.1	6.9	6.9	1.4	1.9
Female malnutrition	12.7	15.4	5.8	4.9	10.1	10.4	2.0	2.5

Note: Under-five mortality rate: deaths under five per 1,000 live births. Infant mortality: deaths under 12 months per 1,000 live births. Moderate stunting: percent of children under five whose height for age is between 2 and 3 standard deviation z-scores. Severe stunting: percent of children under five whose height for age is below 3 standard deviation z-score. Moderate underweight: percent of children under five whose weight for age is between 2 and 3 standard deviation z-scores. Severe underweight: percent of children under five whose weight for age is below 3 standard deviation z-score. Fertility: births per woman 15–49. Female nutrition: percent of women 15–49 whose body mass index is less than 18.5. Rural-urban gap: rural divided by urban incidence.

Source: Davidson and others forthcoming.

3.26 One positive indicator is sick days lost to work. After rising between 1992/93 and 1999/2000, this indicator fell back down, especially for the second and third quintiles (table A2.20).

3.27 *Access gains have been greater for safe water than for roads or electricity* (table A2.21). Access to safe water increased in all quintiles, rural and urban, with the greatest increase appearing in the bottom quintiles in rural areas—those most in need. Access to a toilet or latrine also improved. Access to electricity improved but not for the poorest quintile, just 6 percent of which had access. Access to electricity was just 26 percent nationwide, and only 13 percent of people in rural areas had access to electricity. The only service delivery area in which no improvement was observed was access to a feeder road within 1 kilometer, although when this question was asked retrospectively, most people noted improvement over the past decade. Responses to questions on access to markets also increased when asked retrospectively

¹⁷ Health outcomes are measured using data from the 1995 and 2000 Demographic and Health Surveys. The quintiles used are from an asset index.

3.28 In sum, Uganda dramatically increased the access of the poorest, primarily in rural areas, to most public services. As a result, productivity and human capital should be increasing. Outcome measures are scarce, however, so the impact of, say, a nearby safe water source on female productivity or health is difficult to assess. Moreover, quantitative measures need to be complemented by qualitative measures.

VULNERABILITY

3.29 Being vulnerable is defined as having a high probability of falling into poverty in the future. The vulnerable are usually assumed to include the poor (who have a high probability of remaining poor or transiting in and out of poverty) and those not in poverty but likely to be pushed into poverty when faced with a shock or change.

3.30 In many countries the vulnerable consist of children, the elderly, and adults with special needs (such as people with disabilities). In Uganda the largest group of poor are nonorphaned children (53 percent) and able-bodied adults (37 percent), 10 percent of which (3 percent of the poor) are widows (Mijumbi and Okidi 2001). People with disabilities represent only 1 percent of the poor, and orphans represent just 9 percent.

3.31 Vulnerability can be measured in several ways. People's perceptions of vulnerability, the reasons for it, and the likelihood of moving into or out of poverty can be measured through qualitative questions. Panel data can provide information on actual mobility, the extent of chronic versus transitory poverty, and the characteristics of those who move out of poverty. Cross-sectional data can provide evidence of the distribution across households of the factors known to be related to mobility. Data on all of these aspects of poverty are available for Uganda.

3.32 The most comprehensive source of qualitative data, the Ugandan Participatory Poverty Assessment Process (UPPAP), begins by asking communities to identify poverty. Symptoms of poverty include material deprivation, such as lack of access to basic needs and services (including food and clothing, shelter, bedding, public services, and markets), as well as the psychological components of poverty, including powerlessness and lack of mastery. Women in particular complain of lack of control over household resources, despite the responsibility for meeting basic needs. Widowed women were reported to be especially disadvantaged, as they lose control over assets after the death of their husband.

3.33 Reported causes of poverty are lack of capital, including lack of access to land or credit, and idiosyncratic shocks, such as poor health, disease, the death of family members, especially bread winners, or loss of a job or other source of income, such as remittances. High and unfair taxes (a government-imposed shock) also rank high as a cause of poverty. Behavioral factors, including excessive alcohol consumption (one of the main causes cited for moving into poverty), large family size and polygamy, are also reported as causes of poverty.¹⁸ Most communities agreed that access to services has improved dramatically, but they remain concerned about quality, especially in the health sector.

3.34 ***Communities surveyed in the Participatory Poverty Assessment reported that it was difficult to move out of poverty.*** In addition to the issues mentioned above, self-employed rural

¹⁸ The data do not support the notion that polygamy is associated with poverty.

households had to deal with lack of access to markets and perceived arbitrary and excessive taxation. Poor gender relations were also reported to be a factor, as they reduced household productivity in a variety of ways, ranging from poor access to land and inputs and poor remuneration for female working members to the physical and psychological effects of domestic violence. Poor gender relations are often exacerbated by excessive alcohol consumption. Communities also noted ineffective leadership and corruption as contributing to poverty.

3.35 The panel data provide information on the rate and scope of transitions in and out of poverty and the share of the poor who are chronically poor. Uganda has two sets of panel data, one that includes annual data for 1992–96 and one that includes data for 1992 and 1999.¹⁹

3.36 Nationally 46 percent of households that were poor in 1992 had moved out of poverty by 1996.²⁰ But regional differences were sharp. Among households that were poor in 1992, 61 percent of urban households but just 39 percent of rural households had moved out of poverty by 1996. Households in the North and East showed less mobility out of poverty than other households, with just 27 percent of Northern households and 37 percent of Eastern households moving out of poverty. In contrast, 60 percent of households in the West and 63 percent in the Central Region had done so by 1996. Among the rural population, 18 percent of households were poor in both 1992 and 1996. By contrast, only 5 percent of the urban population was persistently poor, and urban households were twice as likely as rural ones to never have been poor during the entire four-year period. In a hopeful sign, 52 percent of the urban population and 62 percent of the rural population experienced a transition into or out of poverty during the period (table 3.10). Thus while chronic, grinding, poverty seems more persistent in rural areas, there is mobility in all areas of Uganda.

Table 3.10: Persistence of Poverty in Rural and Urban Areas, 1992-96

<i>Item</i>	<i>Rural</i>	<i>Urban</i>	<i>Total</i>
Poor all four years	18.2	5.4	12.8
Nonpoor all four years	20.2	43.1	29.9
Mixed status	61.6	51.7	57.3

Source: Okidi and McKay, 2003.

3.37 ***Changing the sector of employment is one way people move out of poverty.*** Comparing the economic activity of the head of the household at the beginning and the end of the short panel period provides some insight into mobility strategies. One important strategy was to change the sector of main economic activity. This normally implied moving out of agriculture, since no households in the panel whose main activity was nonagricultural were in the chronic poverty group. By 1996 roughly the same proportion of households had stayed in agriculture as had changed their sector of economic activity. Changing sectors worked well for those who did not start out poor. It also seems to have provided significant mobility. Of those who stayed poor all four years, 70 percent had stayed in agriculture. Of those who changed sectors, only 10 percent stayed poor all four years.

3.38 The longer panel provides similar results. During a period in which the poverty headcount fell rapidly. There was significant mobility (table 3.11): only 39 percent of households

¹⁹ This material draws on Okidi and McKay (2003) and Deininger and Okidi (2003).

²⁰ Data from Okidi and McKay (2003) re-analyzed by author.

that were poor in 1992 were still poor in 1999 (22 percent of the whole population). Some 29 percent of households escaped poverty over this period, and 12 percent of households became poor. Mobility varied across regions, with 8 percent of households in the Central Region, 11 percent in the Western Region, and 13 percent in the Eastern Region falling into poverty. Sixty percent of urban households but just 40 percent of rural households were not poor in either 1992 or 1999.

Table 3.11: Changes in Poverty, by Region, 1992/93–2000/01

<i>Item</i>	<i>Uganda</i>	<i>Central</i>	<i>Eastern</i>	<i>Northern</i>	<i>Western</i>
Poverty headcount in 1992 (percent)	53.9	41.1	57.2	66.3	58.2
Poverty headcount in 1999 (percent)	36.3	22.6	36.3	66.3	35.4
Change in headcount	-17.6	-18.5	-20.9	0	-22.8
Share of households escaping poverty (percent)	29.2	26.4	24.3	17.4	34.1
Share of households falling into poverty (percent)	11.7	8.2	13.4	17.4	11.3

Source: Deininger and Okidi 2003.

3.39 *People who were persistently poor had larger households, and the mean household size rose for this group.* The poorer a household was in 1992, the higher its probability of remaining poor in 1999, confirming the hypotheses that future poverty is related to current and past poverty and that the poorest are the most vulnerable. Most of those who moved out of poverty remained near the poverty line, where they remained vulnerable to falling back into poverty.

3.40 *Households that moved into poverty tended to have a higher ratio of alcohol consumption as a share of total food purchases.* (table A2.24). The average number of cattle owned by these households declined over the period, suggesting that they probably sold assets to try to stay out of poverty, possibly in response to a shock.

3.41 More than a third of households reported a major shock in the previous seven years, and there was very little variation across categories (table 3.12). Of those that experienced a shock, two-thirds of those in rural areas reported a major illness and another quarter reported loss of a productive asset. In urban areas illness was the most often reported shock (48 percent), but it was cited less frequently than in rural areas. People in the richest quintile reported the lowest frequency of illness. The most common coping mechanism was to seek help from family and friends. This was more common in urban than in rural settings. Rural residents were more likely to sell assets (possibly because they had them), despite the consequences for their future income. Residents of the Western Region were least likely to rely on family and friends and most likely to borrow money or just try to get by.

Table 3.12: Incidence and Types of Shocks, by Region and Consumption Quintile, 1997–92

<i>Item</i>	<i>Experienced some shock</i>	<i>Type of shock by households that experienced a shock</i>				
		<i>Illness</i>	<i>Separation from spouse</i>	<i>Job loss</i>	<i>Loss of productive asset</i>	<i>Other shock</i>
National	19.5	62.8	8.5	4.4	24.1	6.5
<i>Area</i>						
Rural	19.4	65.7	7.6	2.5	24.2	6.5
Urban	20.1	48.0	13.2	14.5	23.1	6.8
<i>Region</i>						
Central	19.2	53.2	10.1	7.7	27.3	9.0
Eastern	20.8	66.6	11.2	3.1	19.7	4.7
Western	20.7	70.6	4.5	2.6	25.9	4.1
Northern	16.9	62.5	7.0	3.4	22.6	8.8
<i>Quintile</i>						
Poorest	18.5	61.4	5.0	2.6	30.4	6.3
Second	18.0	66.1	7.5	2.2	25.2	4.6
Third	19.9	65.9	9.6	3.3	20.5	7.1
Fourth	19.4	65.7	5.6	6.0	20.0	7.8
Richest	21.0	57.4	12.5	6.3	25.4	6.5
<i>Head of household</i>						
Male	19.5	61.8	7.9	5.3	24.3	7.0
Female	19.7	65.4	10.2	2.2	23.4	5.3
<i>Poverty status</i>						
Nonpoor	20.1	62.7	9.6	5.0	22.5	6.7
Poor	18.1	63.0	5.5	2.8	28.5	6.0

Source: Okidi and Ssewanyana, 2004.

3.42 **Civil conflict is a source of vulnerability.** A stunning 80 percent of households in the Northern Region that were not poor in 1992 were poor in 1996. Deininger (2003) finds that civil conflict substantially reduces the probability that a household invests in or starts up an enterprise, because they fear having their assets expropriated during the conflict. These households therefore have a high likelihood of being chronically poor. At the same time, variables that are known to increase poverty are also correlated with increased conflict, according to Deininger. These include distance from infrastructure, asset inequality, a low level of human capital, and presence of cash crops (an important expropriable source of wealth).

3.43 **Crime and violence also increase vulnerability, especially among the poor** (table 3.13). Poor rural residents report lower perceptions of safety than other households, although in both rural and urban areas, more than 70 percent of the upper quintiles report feeling generally safe. With good reason the North reports much lower perceptions of safety. The poor are less **confident** than other households about the government's ability to protect them from crime and violence, but the confidence levels are about the same in rural and urban areas, possibly reflecting lower expectations in rural areas. Confidence levels are very low in the North, especially among the poor, where less than 40 percent of households are confident that the government will protect them.

Table 3.13: Perceptions of Government Protection from Crime and Violence, 2002/03
(percent)

Item	Not confident at all			Neither confident nor otherwise			Generally very confident		
	Poorest quintile	Richest quintile	All quintiles	Poorest quintile	Richest quintile	All quintiles	Poorest quintile	Richest quintile	All quintiles
National level	10.0	4.5	5.6	27.9	17.1	20.9	62.1	78.4	73.5
<i>Area</i>									
Rural	10.7	4.3	5.7	28.5	13.8	20.5	60.9	81.9	73.9
Urban	4.4	5.6	5.2	28.2	19.9	23.0	67.5	74.5	71.8
<i>Region</i>									
Central	5.5	6.3	5.2	24.5	19.0	22.5	70.0	74.7	72.3
Eastern	7.6	4.7	5.2	23.2	13.9	18.8	69.2	81.4	76.0
Northern	24.2	8.4	11.4	38.9	30.2	34.5	36.9	61.4	54.1
Western	1.8	1.7	2.1	14.4	6.9	10.8	83.8	91.4	87.1

Source: Author calculations based on 1992/93 Integrated Household Survey, and the 1999/2000 and 2002/03 Ugandan National Household Surveys.

Note: Quintiles calculated at the regional level, with the exception of national numbers. Households categorized based on the main sector in which the household head works.

3.44 HIV/AIDS has increased vulnerability. Adult morbidity and mortality from HIV/AIDS leave households with fewer able-bodied earners, reducing their consumption. Many households have taken in orphans as a result of deaths in their family or community: by 1999 more than 25 percent of households had at least one foster child under 14 and 15 percent had a foster child under 6 (Deininger, Grommelynck and Kempaka, 2005). One out of every five children in Uganda was not living with his or her biological parents in 1999. Multivariate analysis shows that households that took in a foster child between 1992 and 2000 experienced slower growth in per capita consumption and a slower rate of investment than households that did not, after controlling for other exogenous variables. In a hopeful sign, the percentage of households caring for at least one orphan has declined since 1999.

3.45 In 1999 orphans had the same probability of attending school as nonorphans. This can be attributed to the success of the universal primary education program, as the education outcomes for orphans were much weaker in 1992, when parents had to pay for education. In 1999 parents had to pay for health care; as a result, orphans were 40 percent less likely than other children to receive vaccinations.

3.46 Uganda remains primarily a rural country, but increased urbanization has increased the number of urban poor. Nuwagaba (2004) finds that the main factor contributing to urban poverty is low-productivity employment (working as taxi touts, bar maids and house maids, prostitutes, street children, or beggars or engaging in petty trade). Often this activity is actually disguised unemployment. Many of the urban poor are elderly, retrenched civil servants, or internally displaced persons who were never able to find regular jobs or employment activity. They often live in slum housing or on the streets.

3.47 *Many of the poor are long-time urban residents.* The urban poor perceive that lack of competitive skills and productive assets, such as land and capital, are the most important barriers preventing them from moving out of poverty. They also cite lack of self-esteem. Most of the urban poor report that they cannot access loans from formal or microfinance institutions because interest rates are too high and repayment schedules are stringent. Lack of collateral also limits

access to credit by the urban poor. Limited social capital; loss of bread-winners in the household, especially as a result of HIV/AIDS; and lack of access to land as a result of Uganda's complicated tenure systems have exacerbated urban poverty.

3.48 *The urban poor have developed several coping strategies to deal with the problems of low income and limited opportunities.* According to Nuwagaba (2004), these mechanisms include engaging in low-level activities, usually in the informal sector, characterized by low pay and irregularity, such as street vending and urban agriculture to supplement income. Some of the urban poor resort to eating one meal a day, walking long distances instead of using public transportation, and encouraging their children to work.

3.49 *Despite improvements, the poor still have limited access to essential services* (post-primary education, health services, water and sanitation, and communication facilities). The cost of services, especially water and telephone, and lack of availability, particularly of health and sanitation services, limit access. As a result, the poor use water from streams, which are often contaminated with industrial waste and other refuse. Universal primary education facilitated access to education for poor children, but the quality of teaching may have deteriorated. The poor use lower-quality health facilities, in which the number of health workers is low and waiting hours long.

3.50 Poor urban residents feel that government policy has focused on rural poverty and has not adequately considered the need for an urban poverty program. In most slums, where the majority of the urban poor live, the condition of pit latrines is deplorable and they are usually shared by several households. According to the poor, urban planning, service delivery, and management, as manifested by corruption, are all deficient.

3.51 In sum, despite more than a decade of poverty reduction, many households in Uganda remain vulnerable to shocks, especially health shocks; crime and violence; poor access and quality of public and private services, such as markets, roads, and health clinics; and limited opportunities for improving their economic situation. The vulnerable are not special categories of people but average Ugandans. For some, especially in rural areas in the agriculture sector, shocks, combined with already low income, result in persistent, grinding, chronic poverty. For others these shocks account for the high incidence of transient poverty; assets, support from family, and other coping mechanisms help keep them out of permanent poverty. Switching livelihood strategies has helped some, but not all, escape chronic poverty.

MULTIVARIATE ANALYSIS OF THE DETERMINANTS OF HOUSEHOLD CONSUMPTION

3.52 Multivariate analysis isolates the separate effects of independent variables on household consumption. The analysis presented here compares the determinants of the log of per capita consumption in rural and urban areas (figure 3.5). Two separate regressions were run, because although most of the explanatory variables are significant in both regressions, the coefficients are different, and tests of significance confirmed a different structure at the 99 percent confidence

level.²¹ We present the results for 2002/2003 graphically in Figure 3.5; the full set of regressions can be found in table A2.26.²²

3.53 ***Large family size increases the probability of being poor,***²³ and young children having a particularly strong negative effect. Children have a stronger negative effect on household consumption in urban than in rural areas, suggesting that the opportunity cost of caring for children is lower in rural areas, probably because this task can more easily be combined with productive work. *The high opportunity cost of children in urban areas may also help explain why the urban poor with children have difficulty escaping poverty — they have few high-productivity options that can be combined with childcare.* In both rural and urban areas, the presence of adult males is more negatively correlated with per capita income than the presence of adult females, suggesting that men directly or indirectly take more out of the household relative to their (average) earnings than women.²⁴ In the Northern Region, where poverty levels are almost twice those in the rest of the country and the scope for economic activity is limited as a result of the ongoing conflict, the contribution of working adults to household per capita consumption is significantly lower than in other regions. Surprisingly, *male headed households are worse off than female headed households, especially in urban areas, unless the female head is widowed.*²⁵

3.54 ***Education increases consumption.*** Among household heads, education is strongly correlated with higher per capita consumption in both rural and urban areas in all years.²⁶ There is only a small difference in the returns between urban and rural areas until postsecondary school completion. Even a small amount of education is associated with higher returns, even in urban areas, which is contrary to the wage analysis. The strong effect of even a little primary education on consumption - as opposed to wages in primary activity - may reflect the additional effect of education on the total earnings, as well as on the overall functioning of the household. These

²¹ A Wald test was used on the equality of the separately estimated models; a Chow test was used to evaluate the significance of the differences between individual coefficients. All tests rejected the hypothesis that the models were the same. However, few of the differences among individual coefficients were significant.

²² Coefficients insignificant at the 95 percent level have been set to 0. Control variables which were insignificant so not displayed are: female headed unmarried (dummy), female headed divorced/separated (dummy), aged squared, household size squared, head in crop farming (dummy), head in mining and construction (dummy), head in manufacturing (dummy), health facility within 3 km (dummy), feeder/all-weather road within 1 km (dummy), electricity within local community (dummy), and market score.

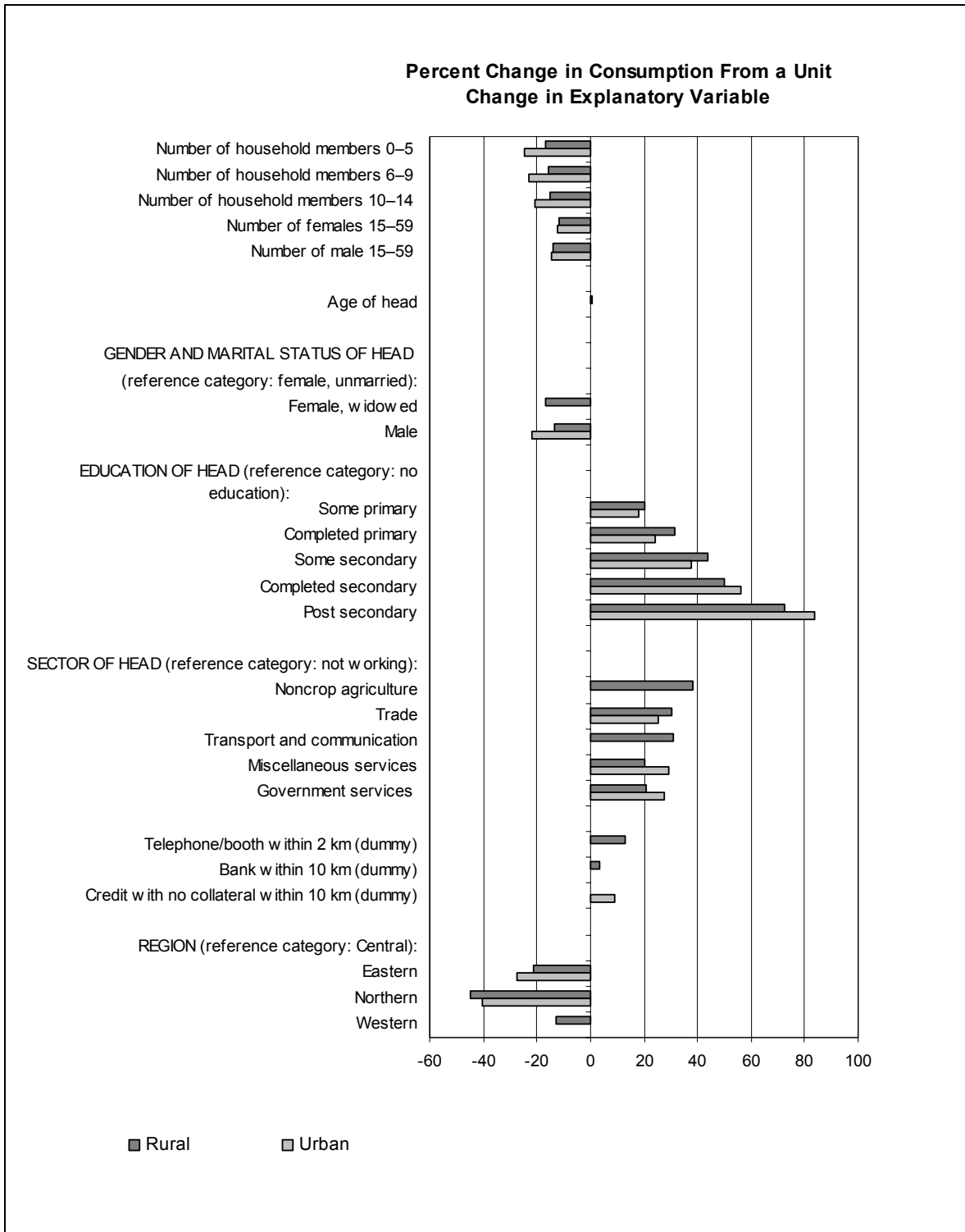
²³ Household composition variables are partly a function of consumption and partly a determinant (meaning they are exogenous. This, the size of the effect cannot be estimated with a fully unbiased technique.

²⁴ This effect may also be related to the equivalence scale used.

²⁵ As shown in table A 2.26, the female widow effect only shows up in the 2002/3 data. The size of the negative coefficient on urban men may reflect that fact that the excluded category (unmarried women) is rich in urban areas.

²⁶ Missing data prevented the characteristics of spouses from being examined as well. These results could reflect some selectivity rather than learning, as in the past school fees were high and it was difficult for poor children to attend school. However, the regressions controlled for the age of the household head, so the selectivity effect should be minimal. One indicator of this is that despite that fact that urban children were much more likely to go to school in the past, the difference in returns between urban and rural areas is low.

Figure 3.5: Regression Results: Determinants of Consumption per Adult Equivalent, 2002/03



Note: Bars indicate the percent change in consumption associated with a one unit change in the explanatory variable.

results imply that if *all household heads who have not done so were to have completed primary education*, (all other factors unchanged), *per capita consumption of these households would rise about 30 percent, moving half of the currently poor population out of poverty and significantly reducing the severity of poverty in the rest.*²⁷

3.55 ***The sector of activity of the household is strongly related to income***, although the relative importance of sectors changes over time. Controlling for education, working in crop agriculture is not rewarding. In the rural sector, higher income sectors include noncrop agriculture (primarily reflecting the high prices of fish) and the service sectors. In both rural and urban areas, manufacturing and mining are surprisingly low-value sectors. This may reflect the recent influx of labor into these sectors and the heterogeneity of this sector, which ranges from informal self-employment to large-scale formal wage activity. In contrast to the bivariate analysis, which shows that government services were the highest paid sector, after controlling for education, the multivariate analysis suggests that this sector does not generate more consumption than other service sectors.

3.56 ***For the most part, infrastructure in the community was not a significant determinant of poverty in any year***, including community assets such as local health facility within 3 kilometers, feeder road within 1 kilometer, or presence of local market or electricity in the community. One reason why may be that these are not independent; infrastructure follows welfare rather than vice versa, and in urban areas, few households lived in communities without these assets. Controlling for family characteristics, there seems little variance left that these variables could explain.

CONCLUSION

3.57 ***Uganda made great strides in improving household welfare between 1992/93 and 2002/03***. The key elements appear to have been a better economic climate for households engaged primarily in agriculture; provision of infrastructure, which facilitated the development of informal nonfarm sector; formal sector job growth; and major improvements in access to publicly financed and provided services. The correlates of poverty suggest that Uganda's poverty strategy will need to continue to focus on these elements in order to sustain poverty reduction.

3.58 A growing rural-urban divide has emerged in terms of factors associated with higher household welfare and the returns to them. These factors include lower fertility and fewer children, access to formal sector jobs, a more diversified portfolio of activities, and connection to infrastructure and markets. The main impact of these negative factors appears to be widening inequality, which slows the poverty-reducing impact of economic growth.

3.59 ***Both rural and urban households remain vulnerable to poverty***. All households seem highly vulnerable to health shocks. Poor households in both rural and urban areas are particularly dependent on publicly provided services, since they usually do not have the means to turn to the private sector.

²⁷ As more household heads complete primary education, the returns to education are likely gradually to decline, so this 30 percent is probably an overestimate. However, there are strong externalities to the education of the head of household, which could increase economic growth.

4. THE POVERTY ERADICATION ACTION PLAN: EVOLUTION AND PROSPECTS

4.1 In 1992, with more than half the population living below the poverty line, the government recognized that despite six years of economic reconstruction, poverty remained a major issue that threatened to derail achievements in other areas. This prompted policymakers to focus on poverty eradication. After several efforts of enhancing the focus on poverty, in 1997 the government launched the first Poverty Eradication Action Plan (PEAP), bringing poverty eradication into mainstream policy formulation. Since 1997 the PEAP has been used as the basis for planning and policy formulation and as a planning framework for achieving national development objectives and modernizing the economy.

4.2 Since its inception the PEAP has provided useful guidance in preparing sectoral plans and investment programs, and in improving the focus of the Medium-Term Expenditure Framework by aligning it to poverty-related expenditure. The government measures progress toward implementing the strategies and policies of the PEAP in a Poverty Status Report, produced every two years. It also prepares annual Poverty Reduction Strategy Paper progress reports (Republic of Uganda 2002b).

4.3 Since 1997 the PEAP has been revised twice in order to keep it up to date in the light of changing circumstances and emerging priorities. Selection and costing of priorities and indicators of growth and development require regular updating.

4.4 Implementation of the PEAP has led to significant progress in several areas, including increased net primary school enrollment, with significant gender and income equality; increased reporting to health centers by the sick; and increased access to safe drinking. The poverty status and key policy proposals under each PEAP are discussed below and summarized in table 4.1.

THE 1997 PEAP

4.5 The 1997 PEAP was the result of long consultations with stakeholders, including key government ministries, civil society organizations, and development partners, all of whom saw the exercise as an opportunity to develop policies with inputs from those affected by the policies. A national task force on poverty eradication conducted wide consultations with stakeholders, government officials, administrative officers, employers and workers' organization, NGOs, and researchers.

Table 4.1: Key Features of the 1997, 2000, and 2004 PEAPs

<i>Item</i>	<i>1997 PEAP</i>	<i>2000 PEAP</i>	<i>PEAP 2004</i>
State of poverty	<ul style="list-style-type: none"> • 44.0% of population falls below the poverty line. • Income poverty declined since 1992. • Strong momentum for continued decline; farmers (especially those growing coffee) benefiting from liberalization process. 	<ul style="list-style-type: none"> • 35.2% of population falls below the poverty line. • Momentum for poverty reduction is strong. • Participatory Poverty Assessment provides qualitative information on poverty. 	<ul style="list-style-type: none"> • 38.8% of population falls below the poverty line. • Income poverty increased slightly. • Other measures of welfare—value of assets, ownership of specific items, access to services—continue to show large improvements.
Inequality	<ul style="list-style-type: none"> • Gini coefficient was 0.35, down from 0.36 in 1992. 	<ul style="list-style-type: none"> • Gini coefficient was 0.40; growing inequality is mitigating the benefits of growth. 	<ul style="list-style-type: none"> • Gini coefficient was 0.43; continued increase in inequality is increasing poverty.
Economic growth	<ul style="list-style-type: none"> • Average annual growth was 7.6 percent between 1992/93 and 1997/8, about 10 percent between 1994/5 and 1995/6. 	<ul style="list-style-type: none"> • Average annual growth was 6.5 percent between 1998/99 and 1999/2000. 	<ul style="list-style-type: none"> • Average annual growth was 5.6 percent between 1999/2000 and 2002/03, about 5 percent in 2002/03.
Focus	<ul style="list-style-type: none"> • Promotion of economic growth and reduction in inequality, reduction in poverty through public service delivery. • Includes measures to increase incomes (roads, land, agriculture, rural markets, employment and labor, rural credit, financial services) and quality of life (primary health care, primary education, water and environment, disaster management) of the poor. 	<ul style="list-style-type: none"> • Stimulation of growth through modernization of agriculture and improvement of technology. • Emphasizes growth and structural change. Promotes ability of poor to improve their livelihoods by providing better education, health, water, and sanitation services. • Special attention given to disadvantaged groups (widows, orphans, people with disabilities). 	<ul style="list-style-type: none"> • Transformation of the economy through increased private sector investment, industrialization, and export-led growth; development of private sector through increased investment in roads and power; increased emphasis on agriculture; restoration of security in the Northern Region and the rest of the country; policies to deal with consequences of conflict and improve regional equity; efficient and transparent use of public resources to eradicate poverty.
Participation	<ul style="list-style-type: none"> • Highly participatory (key government ministries, Parliament, civil society, development partners). 	<ul style="list-style-type: none"> • Highly participatory (key government ministries, Parliament, civil society, development partners). 	<ul style="list-style-type: none"> • Highly participatory (key government ministries, Parliament, civil society, development partners).
Financing	<ul style="list-style-type: none"> • Poverty Action Fund, established by government and development partners. 	<ul style="list-style-type: none"> • Poverty Action Fund, established by government and development partners. PRSC 1 - 4 	<ul style="list-style-type: none"> • Poverty Action Fund, established by government and development partners. partners, PRSC 5.
Monitoring	<ul style="list-style-type: none"> • Poverty Status Report (review) after two years. 	<ul style="list-style-type: none"> • Poverty Status Report (review) after two years. 	<ul style="list-style-type: none"> • Clear monitoring and evaluation and policy matrix. • Annual review proposed.
Other policy initiatives	<ul style="list-style-type: none"> • Introduction of universal primary education (1997). 		<ul style="list-style-type: none"> • Abolition of user fees in public health centers (2001).

4.6 The PEAP focused on measures to increase the incomes of the poor (improvements in roads, land, agriculture, rural markets, employment and labor, rural credit, and financial services) and measures to improve the quality of life of the poor (provision of primary health care, primary education, water, environmental services, and disaster management). While not replacing sectoral plans, the PEAP established a national policy framework for eradicating poverty by prioritizing actions in different sectors. It recognized that the best way out of poverty is not to give hand-outs to the population but to enable people to earn decent incomes and to improve the quality of their lives. Government action under the PEAP focused on several areas:

- Managing and consolidating macroeconomic policy in order to keep the economy on a growth path and providing the required macroeconomic incentives to enable the poor participate in growth.
- Making economic growth sufficiently broad based to encompass the poor by using public expenditure to increase their opportunities to participate in agriculture.
- Providing basic social services to the population.
- Creating national capacity to facilitate a quick and adequate response to economic problems and disasters.
- Promoting transparency and accountability.

4.7 The 1997 PEAP noted that despite the long period of macroeconomic stability established at the beginning of the 1990s, poor people had not fully benefited from growth and thus required special attention. Several constraints, including a discriminatory and regressive tax regime, export bias, heavy debt burden, and inadequate public expenditure on basic social services, prevent poor people and the less privileged from participating in economic growth. The 1997 PEAP therefore recommended that in addition to maintaining a stable macroeconomic environment, the government had a duty to reform the tax structure in order to broaden the income tax base, reduce antiexport bias, phase out discriminatory administrative tax measures, and make taxes more progressive; ensure prudent debt management to achieve more reduction in debt burden and effective utilization of external resources; provide a conducive policy environment, infrastructure and investment incentives to promote rural development and growth in poorer regions; focus on efficiently spending public funds; develop poverty eradication initiatives; and target government services used by the poor. In addition, the 1997 PEAP advocated:

- Increasing the share of resources allocated to service provision from 23 percent to 50 percent of recurrent expenditure.
- Equalization grants and creating incentives for public sector workers to accept postings in remote districts and prioritizing infrastructure in the most remote parts of the country.
- Introducing minimum national standards at the district level to guide planning and the mobilization of resources.
- Effectively using resources by developing partnership with NGOs and the private sector for poverty eradication; appropriately reallocating resources by fully implementing decentralization in every ministry in order to improve efficiency and create savings; reforming the budget; developing a small, efficient, well-motivated

public service sector; and promoting transparency in the disbursement of funds to reduce diversion of resources.

THE 2000 PEAP

4.8 Following progress made since 1997, especially in the development of sectorwide approaches and participatory poverty assessment (Republic of Uganda 2000c), the PEAP was revised in 2000.²⁸ The new strategy for growth focused on two main areas: factors that determine the ability of the poor to improve their livelihoods (education, health, water and sanitation) and stimulation of economic growth through the modernization of agricultural production and improvement of technology. Modernizing agriculture was underscored because of its role in increasing agricultural productivity and farm incomes; improving technology is important because of its ability to stimulate labor-intensive industrialization and thus increase effective demand for the manufacturing and service sectors. The 2000 PEAP also recognized the special needs of disadvantaged groups (widows, orphans, people with disabilities), who may not be able to take advantage of the improved environment for growth without additional support and assistance.

4.9 Like the 1997 PEAP, the 2000 document maintained the four pillars of high economic growth, good governance, increased ability of the poor to raise incomes, and enhanced quality of life for the poor. Under each of these pillars, certain inputs are required to reduce poverty.

4.10 Rapid and sustainable economic growth and structural transformation is expected to result in poverty reduction by increasing output (expanding the economic pie), which if well distributed benefits the population by increasing the range of goods, services, and choices. The 2000 PEAP noted that economic growth requires structural transformation—economic openness, agricultural modernization, and expansion of manufacturing and services, all of which are important for enhancing production.

4.11 Good governance, including accountability and transparency of public actions, and elimination of corruption ensure that public actions are consistent with Uganda's desire to increase the value of government expenditures. The PEAP also recognized security of life and property (public and private) and improved knowledge and respect for human rights as important for promoting growth.

4.12 Increasing the ability of the poor to raise their incomes requires creating an environment that enables self-employment to thrive and expands wage employment. Services and information are needed to develop skills and increase returns to assets. The PEAP noted that poor people increase their incomes mainly from self- and wage employment. Large reductions in poverty can be achieved by improving the ability of the poor to undertake self-employment and expanding opportunities for wage employment. The PEAP also recognized that not all people will gain equally from an enabling environment, because of lack of endowments or other disadvantages. It therefore proposed providing support to disadvantaged groups, including people with disabilities, the internally displaced, unemployed youth, and others.

²⁸ In addition, the costing of public actions and indicators for monitoring in key, poverty-oriented sectors had been developed, and the Poverty Status Report of 1999 identified a number of constraints in the implementation of the PEAP. Increased primary school enrollments following the introduction of the universal primary education program and new evidence on the status of poverty from the 1999/2000 Ugandan National Household Surveys were also used to update the PEAP (Republic of Uganda 2000c).

4.13 The 2000 PEAP recognized that reducing income poverty cannot be achieved without improving the quality of life. This means undertaking activities that improve access to health care, education, water and sanitation, and housing. The PEAP made a strong case for improving the delivery and quality of services. It also addressed cross-cutting issues, such as gender equality, HIV/AIDS, and large family size.

THE 2004 PEAP

4.14 After seven years of implementing the PEAP, the government finalized the second revision of the strategy, bringing it up to date with current trends in poverty and policy issues. The new poverty reduction strategy is based on transforming the economy by increasing private sector investment, industrialization, and export-led growth. The 2004 PEAP calls for continued macroeconomic stability and good governance in order to increase private investment. Industrialization is expected to be based on Uganda's natural resource and labor endowments. Increased private investment will result in increased productivity, higher demand for labor, and therefore higher wages and incomes. Agriculture is expected to play a complementary role to industrialization by providing raw materials for processing industries and acting as a market for industrial outputs.

4.15 Major challenges identified in the 2004 PEAP include dealing with the increase in poverty and inequality. While Uganda continued to grow between 1999/2000 and 2002/03, the benefits of this growth were not equitably distributed, slowing poverty reduction. The PEAP notes that except for the reduction in HIV/AIDS prevalence rates, improvements in human development indicators were much more modest than in earlier years. In addition, insecurity and civil strife continue almost unabated in the Northern Region and show signs of spreading to the Eastern Region, increasing poverty in both regions.

4.16 The 2004 PEAP sets out the following priorities:

- Restore security in the North and the rest of the country, deal with the consequences of conflict, and improve equity across regions. Through the Northern Uganda Social Action Fund (NUSAF), the World Bank and other development partners are already providing assistance to the people of the North to help them ameliorate the impact of the conflict.
- Restore sustainable growth in the incomes of the poor. Help the poor improve their incomes and savings, halting widening income inequality.
- Improve human development by improving access to both primary and secondary education, improve the quality of education, and understand and address the causes of high drop-out rates. Reduce infant and child mortality and improve families' control over family size.
- Use public resources efficiently and transparently. The expansion in resources available to the government in the 1990s and early 2000s, especially from large aid inflows, may not continue in the medium term. It is therefore prudent to minimize leakage of such resources in order to promote service delivery.

4.17 In a departure from previous policy documents, the 2004 PEAP places greater emphasis on private sector development through greater investment in roads and power. It calls for a

sharper focus on agriculture, by proposing policy actions that will promote increased production and productivity of the sector. It links targets with the Millennium Development Goals and the costing of the PEAP. It includes an elaborate annualized policy matrix, with specific policy actions planned at each stage of the plan.

4.18 Because the need to restore security throughout Uganda is seen as critical to increasing production and productivity, the 2004 PEAP adds a fifth pillar. The new pillar puts at the fore the need to end the rebel insurgency, especially in the Northern Region, through all possible means, including a peacefully negotiated settlement. The pillar also prioritizes putting an end to cattle rustling, providing essential services to internally displaced persons, and reducing the distress associated with displacement.

4.19 The five pillars of the 2004 PEAP are good economic management; increased production, competitiveness, and incomes; improvement of security, conflict resolution, and disaster management; good governance; and human development. In addition, the 2004 PEAP proposes actions for addressing issues that cut across sectors, including gender, HIV/AIDS, environmental management, employment, population growth, social protection, income distribution, and regional equity. High rates of unemployment, population growth, and the lack of formal mechanisms of social protection result in high dependence rates, reducing the positive effects of economic growth. These issues need to be addressed in order to improve quality of life of the population.

LINKING THE PEAP TO GOVERNMENT EXPENDITURE PROGRAMS

4.20 To operationalize the PEAP, the government has sharpened the focus on expenditures that reduce poverty—spending on education, health care, water and sanitation, and justice, law, and order. Government spending in these sectors, supported by development partners, continues to represent the largest proportion of the budget, and it has been increasing. The share of the national budget spent on education has consistently been maintained at more than 20 percent, while the budget for health increased from about 6 percent in 1998/99 to about 12 percent in 2003/04 (table 4.2). Spending on roads and works increased from about 6 percent of the national budget in 1998/99 to about 8 percent in 2003/04.

Table 4.2: Budget Expenditures, by Category, 1994/95–2003/04

<i>Expenditure item</i>	<i>(percent)</i>										
	1994/95 ^a	1995/96	1996/97	1997/98	1998/99 ⁹	1999/2000 ^b	2000/01 ^{cd}	2001/02	2002/03	2003/04	
Security	19.2	18.8	18.3	16.4	16.7	10.9	13.9	12.6	11.0	10.8	
Roads and works	4.3	4.3	6.8	4.5	6.1	13.0	8.5	8.3	8.2	8.3	
Agriculture	2.6	1.5	1.4	1.0	1.0	4.1	1.5	2.2	4.2	3.5	
Education	19.5	18.6	21.8	24.1	26.4	20.2	24.9	24.1	20.6	18.8	
Health	7.9	9.8	7.4	6.8	6.3	11.2	7.4	8.6	10.6	12.2	
Water ^e	—	—	—	—	—	4.6	2.4	2.6	3.3	3	
Justice, law, and order	8.8	9.8	8.7	8.8	7.9	5.3	6.5	6.7	5.7	6.5	
Accountability ^f	—	—	—	—	—	0.7	1.1	1.1	1.1	7.9	
Economic functions and social services	9.2	6.2	6.5	5.7	4.0	10.3	5.0	6.5	14.1	8.7	
Public administration	20.7	22.6	22.1	25.5	21.2	14.5	20.2	19.3	14.5	12.3	
Interest payments	7.8	8.4	7.0	7.1	6.5	5.4	8.5	8.1	6.7	7.9	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

— Not available.

a. Data for 1994/95–1998/99 are from the Background to the Budget 1999/2000.

b. Data for 1999/2000 are from the Background to the Budget 2001/02

c. Data for 2000/01–2003/04 are from the 2004/05–2006/07 and 2005/06–2007/08 Medium-Term Expenditure Frameworks.

d. Nominal values for 2000/01 exclude donor projects.

e. Before 1999/2000 this was included under economic functions and social services.

f. New departments and votes (Ethics and Integrity; Audit; Inspectorate of Government; Accountability in Ministry of Finance, Planning and Economic Development; and District Grant for Monitoring and Evaluation) created out of Public Administration and Economic and Social Functions.

4.21 In order to protect public expenditures in areas considered critical to the implementation of the PEAP, the government created the Poverty Action Fund. This fund provides a framework for defining and protecting public expenditures aimed at reducing poverty from cuts arising from revenue shortfalls and additional budgetary demands in sectors that do not have a direct impact on poverty reduction. As defined in the operational modalities, the Poverty Action Fund is part of the national budget which is focused on implementing the Government's highest priorities within the PEAP (Republic of Uganda 2002b.²⁹ The fund is jointly financed from the savings arising from the Highly Indebted Poor Countries' (HIPC) initiative, donor budget support (general budget support and earmarked sector support), and government funds. The share of the total budget going to the fund increased from about 17 percent in 1997/98 to 31 percent in 2000/01 and 37 percent in 2003/04 (table 4.3). Fund expenditures include government programs that seek to improve incomes (rural roads, implementation of the Land Act of 1998, agriculture extension, and strategic exports) and those that seek to improve the quality of life of poor people (education, health care, water and sanitation). They also include expenditures for improved accountability and monitoring and evaluation.

**Table 4.3: Poverty Action Fund Expenditures, 1999/200–2004/05
(billions of 2002/03 U Sh)**

<i>Sector</i>	<i>1999/2000</i>	<i>2000/01</i>	<i>2001/02</i>	<i>2002/03</i>	<i>2003/04</i>	<i>Est. 2004/05^a</i>
Agriculture	12.8	16.2	26.5	26.5	29.0	30.1
Primary health care	23.2	58.4	120.6	142.4	119.1	176.4
Water and sanitation	19.0	37.6	51.1	47.9	46.6	52.9
Primary education	228.9	263.3	313.5	314.6	307.7	321.0
Other ^b	43.7	80.42	135.6	161.0	186.6	168.1
Total Poverty Action Fund	327.5	455.9	647.2	692.3	689.0	748.5
Poverty Action Fund as share of government discretionary spending (percent)	26.5	32.2	35.2	36.5	37.1	38.1
CPI (1997/98 =100)	106.0	110.8	108.6	114.8	120.6	127.71

^a Based on approved budget.

^b Includes expenditures on rural roads, district equalization grants, monitoring and accountability, functional adult literacy, protection of wetlands and poverty statistics.

Source: Republic of Uganda (1999 and 2004). Background to the Budget. Ministry of Finance, Planning and Economic Development.

4.22 The strong sectorwide approach, especially in health, education, and water and sanitation, and the increasingly transparent and inclusive budgetary process have continued to ensure that increased resources are channeled toward poverty-reducing activities, in a manner that promotes service delivery. The Sector Working Groups bring together central and local government staff, civil society, and development partners to discuss strategies, priorities, and improved service delivery. Use of the Medium-Term Expenditure Framework has helped improve the consistency of sectoral plans with budgetary ceilings, which are communicated well in advance.

4.23 As a result of these efforts, Uganda spends a significantly larger share of its national budget on PEAP priority expenditures than most countries in Africa spend on their Poverty

²⁹ A government program qualifies for inclusion in the Poverty Action Fund if it is in the PEAP; has a direct impact on poverty reduction (for example, by increasing the ability of the poor to raise their incomes or leading to improvement in the quality of life); delivers services to the poor; and has a well-developed plan.

Reduction Strategy Paper priority spending. Only Ethiopia and Mozambique match Uganda's allocations for priority poverty spending in the budget. Proportionally, most other countries spend less than half as much as Uganda does on poverty reduction³⁰.

PEAP MONITORING AND EVALUATION

4.24 Uganda has arguably the most ambitious national monitoring and evaluation system in Africa.³¹ Development of this system has been a crucial factor in the Government's success in developing and implementing effective poverty reduction strategies. All PEAPs have included monitoring plans, with target indicators spelled out. The data sources for the poverty M & E system which tracks these indicators are (a) regular household surveys (including multi-purpose consumption surveys, and purposive surveys in key areas), (b) special purpose surveys such as service delivery and public expenditure tracking surveys, (c) other data collected regularly by the Uganda Bureau of Statistics (UBS), and (d) the administrative data bases maintained by sector ministries.

4.25 Progress in meeting PEAP targets is reviewed and fed back into the institutional decision making systems through (a) annual sectoral budget papers, and (b) biannual Poverty Status Reports (PRS). Annual sectoral budget framework papers accompany the Ministerial budget requests, and must demonstrate the link between their expenditure proposals (including donor-financed projects) and the PEAP targets. The discussion of these sector working papers is highly participatory, resulting in a rigorous, transparent and open monitoring system at the sectoral level. Starting with the first PEAP, progress in achieving PEAP targets is reviewed in biannual prepared by the Poverty Monitoring and Analysis Unit (PMAU) in the MFPED. The PMAU was set up in 1998 as the PEAP secretariat with a focus on supplying policymakers with just in time feedback on performance, based on the PEAP monitoring indicators. These papers are discussed at the Cabinet level, and are supplied to the Parliament, the donors, civil society, and all other stakeholders.

4.26 As expected, implementation of this well-designed system was uneven, as weak links emerged. UBOS received a lot of donor support, which helped to ensure that national statistical data has been produced in a timely fashion, and is of a high quality. Routine or administrative data, produced under the direction of Ministries has suffered from shortcomings. These data (collected directly from service providers) are the backbone of the system as they are available more frequently than survey data, and permit even the lowest levels of the subnational government system to monitor progress. Quality problems in administrative data have been more difficult to address because they are collected from decentralized units with varying levels of capacity and then fed into sector ministries which often also have limited capacity to improve the system. Coordination was poor between ministries, within ministries, and with UBOS, leading to inconsistencies and gaps which could not be resolved by solely by cross checking routine data with national survey data. Uganda's extensive decentralization initially complicated the problem.

³⁰ IMF staff estimates: definitions of pro(poor spending vary; countries with the broadest sector definition of priority poverty spending in the budget are not necessarily the ones with the highest shares.

³¹ This section draws from Bedi et al, (2006) chapter 12; Fox and Liebenthal, (2006) Chapter 2; and World Bank staff mission reports.

As a result, the use of the administrative data in sector monitoring and evaluation (e.g. in budget proposals, for example), was in some sectors spotty, and even sometimes misleading.

4.27 A systematic effort to address these data weaknesses began with the 2000 PEAP. In 2002, institutional responsibilities for monitoring and quality management were assigned between UBOS, the sectors ministries, and the PMAU. Subsequently a full strategy for coordination and quality support was developed called NIMES. Included in the NIMES proposal was the creation of a focal point providing leadership and coordination in the Office of the Prime Minister (OPM). One of the main objectives of the strategy is to improve data quality through stronger coordination, reduced duplication, and harmonization of methodologies and strategies.

4.28 The fruits of these institutional advances can be seen in the 2004 PEAP, where a clear and comprehensive policy and results framework is presented. The plan includes an assignment of responsibilities for each indicator. An integrated data plan for measurement of all PEAP indicators is being developed by the NIMES secretariat. The new UBOS strategic plan, completed in 2005, is built around the monitoring and evaluation requirements assigned under the PEAP monitoring plan..

4.29 The extent to which data and analysis are used to develop empirically-based policy and programs varies by sector as well. In some sectors, the capacity for monitoring and evaluation is very weak, and will take time to build up. As a result, PEAP performance data is not used regularly to measure performance within the sector, much less to develop sector strategies. In these cases, data are an add-on after the main decisions have been made. The practice of sectoral strategies underlying donor financing and sector budgets has raised the bar significantly, but the end, much depends on the capacity for analysis in the sector, and the culture within ministries themselves.

4.30 Donors have supported the development of independent capacity to do analysis through the creation of the EPRC, an independent agency financed which is contracted by the PMAU to support the evaluation function, as well as strengthen the analytical underpinnings of the PEAP. EPRC is known for its high quality research, and the close connection with the PMAU helps ensure the relevance of the research as well is the impact within the MFPED (a powerful ministry). For example, EPRC support is used by the PMAU in the preparation of the PRSs. The impact of PMAU and EPRC analysis of the underlying causes of poverty and the progress in removing some of these causes through PEAP-supported policies and strategies in other ministries varies. Often ministries simply do not have the capacity within their team to digest and apply the analysis in, for example, the annual sector budget papers.

4.31 Donors in the past supported efforts to improve the quality of data for monitoring and analysis through individual projects with ministries and with UBOS. Recently donors too have formed a sector working group to provide harmonized basket funding for the NIMES effort and the UBOS strategic plan to implement NIMES and improve data for PEAP monitoring.

4.32 Most observers conclude that despite the weaknesses cited above, Uganda has one of the best M & E systems in Africa. A fundamental reason for this is that M & E was built into the design of the PEAP from the beginning – it was not an add-on at the end as in some other

countries. As the PEAP has evolved, so has the M & E system. As it was considered an important results-oriented planning was considered a building block from the start (and was developed within the PMAU, a line function with the MFPED) the link with the budget process was in place from the start as well. This strong ownership has continued as leadership for much of M & E development moved out of the MFPED into the OPM. Prospects for continued improvement, therefore, are excellent despite the difficulty of the challenges.

CONCLUSIONS AND KEY CHALLENGES

4.33 Since 1997 the government has developed and used the PEAP as the basis for formulating and implementing policies aimed at eradicating poverty. All versions of the PEAP have emphasized good economic management, improved security, good governance, improved production, competitiveness and incomes of the poor, and investment in human capital as the basis for poverty eradication. In addition, the 2004 PEAP emphasizes the need for increased efficiency and transparency in the use of public resources. The combined effect of a stable macroeconomic environment; high GDP growth rates; policies designed to enhance private sector production (for example, the Medium-Term Competitiveness Strategy and Strategic Exports Program); and policies designed to improve service delivery, such as universal primary education and the elimination of user fees in the health sector, has resulted in large reductions in poverty and improvements in access to services, especially in the 1990s.

4.34 High levels of rural poverty and increasing inequality suggest the need for a holistic approach to poverty reduction. The pace of recent gains in poverty reduction is unlikely to continue; additional gains will be harder to secure. Providing social services and spurring growth will not be sufficient to sustain poverty reduction in Uganda.

4.35 The 2004 PEAP is therefore right to emphasize the need for growth in income earning opportunities. Given the increasingly imbalanced pattern of poverty reduction in Uganda, policymakers should consider whether—and how—to generate shared growth. Gaps in income differentials across quintiles may continue to widen in Uganda, as the economy continues its path of structural transformation out of nonmonetized agriculture and into cash-cropping, industry, and services.

4.36 To maintain progress toward meeting the PEAP targets for poverty reduction, growth in the incomes of the poorest quintile groups needs to improve. This means that agricultural growth requires special priority. Farmers in Uganda face high transactions costs in accessing inputs and getting their crops to market. And infrastructure and agricultural services used by poor people in Uganda have not kept pace with access to social services since 1992. The government may need to place more emphasis on rural transportation, rural electrification, and agricultural services in future budgets and policy decisions.

4.37 The government needs to address the issue of high fertility and population growth rates if the growth pay-off for poverty reduction is to be maximized. The causality between poverty and family size at the household level is subject to debate. But it seems likely that the unmet demand for family planning in Uganda is contributing to a large number of unplanned births, which can seriously affect mothers' health. With female labor participation in the economy increasing, this

issue may need further consideration during implementation of the PEAP. At the macro level, there are serious medium-term fiscal implications of population growth of 3.4 percent and a population distribution in which more than half the population is under the age of 15.

4.38 Additional public investments in infrastructure—energy, roads, rail, and air transport—are needed to improve the environment for private sector investment and growth. Electricity supply is needed for structural transformation into industry, particularly to increase the value-added component in agricultural exports through rurally based agro-processing. In its Budget Framework Paper for 2005/06–2007/08, the government recognizes that sufficient energy supply is critical to the development of modern manufacturing and services and plays an important role in rural development (Republic of Uganda 2005 Current and projected demand for energy falls short of supply by 100–200 megawatts. There is thus a strong need to invest in this sector in order to meet base and peak loads and ensure stability of the power supply network.

4.39 Improving transport infrastructure could significantly reduce Uganda’s transactions costs and expand access to regional markets. Improving roads, rail, air freight links, and waterways and supporting the development of efficient and affordable information and communication technology are important to boosting production, incomes, and competitiveness. The government’s commitment to improving and maintaining the national road network in accordance with the Ten-Year Road Sector Development Programme, as reflected in the Budget Framework Paper 2005/06–2007/8, is important.

4.40 The 2004 PEAP notes that investment in public infrastructure as a share of GDP has been falling in recent years, suggesting that additions to Uganda’s public infrastructure are failing to keep pace with the growing economy and population. The PEAP also notes that pressures on the fiscal deficit mean that budgetary resources for investments in productive sectors will not be available in the short to medium term.

4.41 Additional fiscal space is required to continue to finance the health and education services, improve the quality of social services, and expand rural infrastructure. In addition, Uganda’s growing economy is creating demands for investments in secondary education to provide higher skilled labor. These needs do not sit comfortably with Uganda’s relatively low revenue mobilization to date or the government’s policy of reducing the fiscal deficit to reduce reliance on aid. Value-for-money improvements will be needed, along with innovative thinking on social service delivery options and infrastructure financing.

5. IMPACT OF PUBLIC POLICY ON THE POOR

5.1 Public policy has been increasingly reoriented toward improving access to public services for the poor and increasing their ability to create and participate in economic growth. This chapter evaluates the impact of public policy on access to health, education, water supply, and agricultural extension services. It also analyzes the impact of two major policy initiatives, decentralization and the new land policy.

5.2 Before the political and economic upheavals of the 1970s and 1980s, Uganda had very good mechanisms for service delivery and some of the best health, education, and water and sanitation indicators in the region. Negligence and mismanagement of public resources during this period led to the collapse of the sector and a reversal of quality of life indicators.

5.3 One of the key strategies of government policy under the three PEAPs has been to improve the welfare of the poor by increasing public financing on public service delivery and making service delivery more efficient and effective and adopting policies that support the economic activity of the poor. How effective have these efforts been?³²

5.4 In the years following the rise to power of the National Resistance Movement, the government was forced to spend a significant share of the budget on security. As the security situation improved and combatants were fully demobilized, funds became available to expand service delivery. Civil service retrenchment also helped increase the funds available to improve service delivery.

5.5 The education sector has consistently received the largest share of expenditures, with major increases in 1997–99 to implement universal primary education. Other service delivery sectors were initially neglected, but these sectors began to receive an increased share of the budget with the implementation of the second PEAP. Who benefited from these expenditures?³³

EDUCATION

5.6 Uganda's education sector has seen major changes over the past decade and a half, with a shift in emphasis away from tertiary toward primary education. The culmination of this policy change was the introduction of universal primary education in January 1997. The long-term objectives of the program are to provide good-quality primary education as a basis for developing human resources, transforming society, and helping reduce poverty by equipping individuals with the basic skills and knowledge with which to exploit their potential. Through the universal primary education program, the government sought to address the problems of access,

³² This chapter draws heavily on Mpuga and Canagarajah (2004). The discussion does not capture issues of quality or, in the case of education, retention and completion rates.

³³ Benefit incidence analysis involves combining information from reported household use of government services with the cost of providing the service to estimate the incidence of the benefit. This can then be used to estimate the distribution of the benefits accruing to different groups (Castro-Leal, Dayton, Demery and Mehra, 2000; Demery 2000).

equity, quality, and relevance of the education system to the development of the country (Republic of Uganda 1998).

5.7 The policy reform abolished tuition and other costs (such as contributions to building funds and parent-teacher associations) in public primary schools and eliminated other barriers, such as uniforms, which had been a major hindrance to attendance by poor children (Ablo and Reinikka 1998).³⁴ A media campaign promoting girls' education and admonishing against early marriage was launched to increase attendance and help retain girls in school (Watkins 2000). Implementation of the program was highly decentralized, with district authorities responsible for education development plans and local authorities responsible for disseminating information about the program to create awareness of the right education. *Parental and community participation have been encouraged.* Communities monitor that children attend school. They also check that resources and inputs from the central government actually reach their destination. *Although the emphasis was on access to education, the importance of quality was recognized.* Overcrowding of classrooms, lack of teaching materials, and lack of trained teachers and money to pay their salaries were, from the beginning, recognized as potential obstacles that could frustrate the impact of universal primary education.

5.8 ***Universal primary education increased primary school enrollment and reduced the gender gap in enrollment*** (see chapter 3). In addition to being pro-girls (at all income levels), the program was largely pro-poor, with children in the lowest quintile gaining the most. The program greatly reduced the wealth bias that had characterized access to primary education before 1997, helped establish gender equality by increasing girls' access to primary education, and reduced the incidence of cost-related drop-outs (Deininger 2001). Survey evidence shows that enrollment in government primary schools almost doubled, from about 3 million pupils in 1992/93 to more than 5.5 million in 1999/2000 and about 6.3 million in 2002. For the poorest quintile, girls' enrollment increased more than 300 percent between 1992/93 and 2002/03. However, for several reasons, including indifference, distance, the need to work at home, disability, and the cost of uniforms and other personal requirements, enrollment rates remain high and most students drop out just before or after completing primary school (Kraybill 2005).

5.9 Because school fees are high, enrollment rates at the secondary and tertiary levels are still very low and gender and income gaps high. Among 13- to 19-year-olds, enrollment in secondary schools increased only slightly, from about 10 percent (boys) and 7 percent (girls) in 1992/93 to 19 percent (boys) and 17 percent (girls) in 2002/03. At the tertiary level the situation is much worse, with enrollment rates of 2.6 percent for boys and 1.2 percent for girls. Enrollment rates are even lower among low-income groups (especially girls), with no major changes since 1992/93. Without specific policies to address the imbalances, the poor, especially women, are unlikely to benefit from public expenditures on post-primary education.

³⁴ School in Uganda is still not free. Households report paying some fees for primary school, as well as providing labor to maintain the school. The share of education expenditures in total expenditures reportedly rose between 1999/2000 and 2002/03. However, the cost of primary school to parents is still reported to be less than 10 percent of the cost of secondary school.

5.10 The universal primary education program shifted the burden of financing education away from households toward the public sector (table 5.1). Since the early 1990s, the education budget increased from 1.6 percent to 3.8 percent of GDP, boosted by donors and resources earmarked under the HIPC initiative and the Poverty Reduction Fund. In the early 1990s, less than 40 percent of the education budget was allocated to basic/primary education; by 2002/03 more than 60 percent of the budget went to this sub-sector.³⁵ Between 1992/93 and 2002/03 the development budget, which covers construction and maintenance, increased by more than six-fold. Support from bilateral and multilateral donors—through sector adjustment loans, specific programs for school inputs, and teacher training—was critical. Increased funding of primary education and the fact that a large proportion of the funds actually reach the intended schools implies improved capacity of the sector to support higher enrollment (Mpuga and Canagarajah 2004).³⁶

Table 5.1: Distribution of Primary and Secondary Education Public Expenditure, by Expenditure Quintile and Gender, 1992/93–2002/03

Item	1992/93				2002/03			
	Unit subsidy U shilling	Share of subsidy (percent)			Unit subsidy U shilling	Share of subsidy (percent)		
		All	Boys	Girls		All	Boys	Girls
<i>Primary education</i>								
<i>Quintile</i>								
Poorest	144.8	20.2	22.6	17.2	8,686	24.3	26.9	21.71
Second	158.3	22.1	23.1	20.9	8,359	23.4	23.2	23.58
Third	146.6	20.5	20.2	20.8	7,763	21.7	20.9	22.55
Fourth	142.5	19.9	18.6	21.5	6,671	18.7	17.9	19.41
Richest	123.6	17.3	15.5	19.6	4,246	11.9	11.0	12.75
Total	715.8	100.0	100.0	100.0	35,724	100.0	100.0	100.00
Poorest	1,326	10.9	11.9	9.4	8,363	6.3	7.0	5.64
Second	1,495	12.3	14.2	9.5	14,348	10.9	10.8	10.93
Third	2,707	22.2	24.4	19.0	25,580	19.3	18.6	20.07
Fourth	2,782	22.9	20.4	26.6	35,040	26.5	25.4	27.52
Richest	3,864	31.7	29.2	35.6	48,971	37.0	34.3	39.69
Total	12,175	100.0	100.0	100.0	132,302	100.0	100.0	100.00

Source: Authors' own analysis based on the UNHS 1992/93, 1999/00 and 2002/03.

5.11 Implementation of universal primary education has made primary education expenditures more gender neutral. In 2002 the poorest 20 percent of children attending primary school

³⁵ The share of the budget going to secondary education increased from 7.3 percent in 1992 to about 11 percent in 1999/2000 and 2002/03, while that going to tertiary education fell from 24 percent to about 11 percent. The share of the sector's budget going to administrative functions at headquarters declined from more than 65 percent in 1992/93 to about 25 percent in 1999/2000 and 2002/03.

³⁶ Expenditure tracking studies have shown that the proportion of funds remitted by the Ministry of Finance that reach the intended schools increased from a mere 20 percent in 1995 to more than 80 percent in 2001 (see Reinikka and Svensson, 2004; Reinikka 2001).

received more than 24 percent of the public expenditure subsidy (boys received 27 percent, girls 22 percent); the richest 20 percent received only 12 percent (boys received 11 percent, girls 13 percent) (Table 5.1). This positive trend in the distribution of the primary education subsidy by gender is attributed largely to universal primary education.³⁷ At lower levels of income, however, gender gaps still persist.

5.12 At the secondary level, gender and income differences are much larger, and they seem to be widening over time. The shares of higher education public expenditure subsidy going to the poor at these levels have been declining over time, particularly for girls. This calls for a proactive policy in order to redistribute the benefits of public spending on secondary education.

5.13 The proportion of households that incur education costs (tuition, boarding and lodging, uniforms, and scholastic materials) is higher among the poor: 72 percent of the poorest quintile but only 52 percent of the top quintile spent money on education in 2002. Among households that paid for education, spending rose from U Sh 104,000 in 1999 to about U Sh 144,000 in 2002. Spending by the poorest quintile remained fairly constant, at about U Sh 30,000 a year, while spending by the richest quintile rose from U Sh 245,000 to U Sh 235,000 (table 5.2).

Table 5.2: Household Expenditures on Education, 1999/2000 and 2002/03

<i>Item</i>	<i>Percentage of households that paid for education</i>		<i>Amount paid (U Sh constant 2002 prices)</i>	
	<i>1999/2000</i>	<i>2002/03</i>	<i>1999/2000</i>	<i>2002/03</i>
<i>Region</i>				
Central	63.2	63.1	171,538	231,085
East	64.7	69.8	76,035	114,746
North	54.2	62.5	54,761	74,798
West	73.1	68.0	84,721	120,062
<i>Quintile</i>				
Poorest	65.4	72.3	31,428	29,938
Second	74.4	73.2	60,758	70,293
Third	68.1	68.4	95,545	129,468
Fourth	60.5	58.2	146,215	235,445
Richest	51.8	52.3	245,031	428,275
<i>All Uganda</i>	<i>64.2</i>	<i>65.9</i>	<i>104,557</i>	<i>144,284</i>

Source: Authors' own analysis based on UNHS 1999/00 and 2002/03.

HEALTH

5.14 Government efforts in the recent past have focused on restoring the functional capacity of the health sector, reactivating disease control programs, and reorienting services toward primary health care. Under the decentralized system, the district health system delivers a package of health services, while the Ministry of Health is responsible for policy formulation, standards and guidelines, and overall supervision and monitoring. Currently, the Ministry of Health is in the

³⁷ Glick, Saha and Younger (2004) reach the same conclusion.

last year of implementing the Health Sector Strategic Plan 2000/01–2004/05, the major objective of which is to reduce morbidity and mortality. Implementation of the plan has focused on institutionalizing policies, structures, and systems in order to effectively implement ministry policies.

5.15 ***Wide differences exist in access and use of health services and in outcomes.*** Poor, vulnerable groups, and people living in rural areas bear a disproportionately heavy burden of disease (World Bank 2004a).³⁸ In addition, although Uganda's health indicators are comparable to those of other African countries, indicators for infant and maternal mortality, life expectancy, and the incidence of stunting among children under five appear to have stagnated at very low levels since 2000.³⁹ Women in both rural and urban settings and at all levels of income report higher incidences of sickness than men. Among the poorest quintiles, a larger proportion of male patients report to health centers when sick; gender differences are less clear among the richer quintiles.

5.16 ***In 2001 the government introduced a policy of free health care for all in government-owned facilities.*** As a result, the share of sick people that sought treatment rose from 67 percent in 1999/2000 to 79 percent in 2002/03. The increase was especially large for women. (table A2.27). Hospital usage by all women increased from about 62 percent in 1992 and 1999 to 78 percent in 2002.

5.17 ***The abolition of user fees significantly reduced the proportion of Ugandans who lack access to health services because of cost.*** In 1999, 47 percent of all respondents (56 percent of the bottom quintile) reported the high cost of consultation and treatment as a major constraint; by 2002 the figure had declined to 31 percent (36 percent for the poorest) (Mpuga and Canagarajah 2004). This finding is consistent with findings by Deininger and Mpuga (2005) and the World Bank (2004a) indicating that the greatest benefits arising from abolition of user fees accrued to poor people.

5.18 Women are still report that they are less likely to access formal health care because of cost (except in the highest quintile). Although the number of poor households with access to a government hospital or clinic within three kilometers tripled between 1992/3 and 2002/3 (reaching 66%, see table 3.8), long distances continued to be reported as a major constraint to access to health care. This suggests that especially in rural areas, the government needs to expand its delivery of health care services to further enhance access.

5.19 The quality of care in public health care centers is an issue. Despite the abolition of user charges in public health care centers, the proportion of patients seeking treatment in these centers remains low. Only about 30 percent of those who sought care came to public health centers, with

³⁸ For example, infant mortality among the poorest quintile is 1.8 times higher than that of the richest quintile, and the prevalence of diseases such as malaria, acute respiratory infection, and diarrhea is greater among children from poor families (see World Bank 2004a).

³⁹ Recent data on these indicators are not available. Plans to conduct a national demographic and health survey, which will provide up-to-date information, are underway.

the rest seeking treatment from private centers.⁴⁰ Even among the poorest quintile, just 44 percent of people seeking care used public health centers. The proportion of patients in the top quintile seeking public services decreased, suggesting that the rich perceived the quality of the public health centers to have declined.

5.20 *Households still bear a substantial proportion of the health care burden.* Ugandans spent an estimated \$17.1 per capita on health in 2002/03. Of this amount, \$9.9 was paid by households, \$3.9 was paid from government revenues, and \$3.3 was provided by donors. Household survey data indicate that the level of out-of-pocket spending did not change substantially between 1999/2000 and 2002/03 (table 5.3). A smaller proportion of people paid for health care, however, and the poor incurred lower expenses than the non-poor. The average household in the poorest quintile paid the equivalent of about Ush 4,000 (equivalent to about \$ 2.0) in medical expenses, while the average household in the top quintile paid about Ush 22,000 or about \$10.0. Out-of-pocket payments by the poorest 40 percent declined by almost half, while those of the richest 20 percent doubled (World Bank 2004a). This change is due largely to the fact that more than 70 percent of the poorest quintile (but just 40 percent of the richest quintile) received free drugs from public health care centers, while the richest quintile used private facilities and more often paid out of pocket.

Table 5.3: Household Payments for Health Care, by Region and Consumption Quintile, 1999/2000 and 2002/03

	<i>Percentage of households that paid for health care</i>		<i>Amount paid (U Sh, constant 2002 prices)</i>	
	<i>1999/2000</i>	<i>2002/03</i>	<i>1999/2000</i>	<i>2002/03</i>
<i>Region</i>				
Central	61.4	65.6	12,565	12,842
East	76.9	72.8	6,728	8,549
North	64.2	52.5	5,893	5,878
West	62.8	54.3	12,254	12,526
<i>Quintile</i>				
Poorest	62.8	55.8	3,660	3,964
Second	68.6	63.4	5,845	5,464
Third	67.2	65.6	8,091	8,568
Fourth	70.2	64.1	11,628	14,813
Richest	63.3	63.9	19,841	22,574
All Uganda	66.3	62.3	9,505	10,411

Source: Author calculations based on UNHS 1999/00 and 2002/03.

5.21 Drug shortages and stockouts at public health care centers suggest that poor people continue to pay for drugs (World Bank 2004a). The limited availability of skilled and motivated personnel, the poor distribution of staff between urban and rural areas, and the different levels of health centers have strong implications for service delivery across the country. Uganda has only

⁴⁰ Deininger and Mpuga (2005) find that after the abolition of user fees, the poor (both children and adults) were more likely to seek treatment from public health facilities.

4.7 physicians, 5.6 nurses, and 13.6 midwives per 100,000 people, figures that compare very poorly with the rest of Sub-Saharan Africa. The absence of trained personnel in health units has been another factor reducing the quality of service delivery.

5.22 In sum, the impact of health sector reforms on health outcomes has been modest, for several reasons. First, physical access remains inadequate, especially for women. Second, services are not very effective: the prevalence of preventable communicable diseases is very high, and the incidence of non-communicable diseases is rising. Third, demand for health services, especially those provided by the public sector, is growing at a very high rate, because of rapid population growth and the effects of HIV/AIDS. Fourth, combined government and donor funding is still well below the \$15 per capita recommended by the New Partnership for Africa's Development (NEPAD). The combination of high demand and limited funding has helped the quality of publicly provided services deteriorate, affecting the poorest households the most.

5.23 ***The government needs to address the problems of both poor quality and long distances to health centers.*** Establishing new health units all over the country will not be sufficient, nor is it feasible under the current budget envelope. The government has to consider the mix of inputs—infrastructure, staff, pharmaceuticals, and knowledge—and address the efficiency of spending in order to improve health outcomes for the poor.

WATER AND SANITATION

5.24 The 2002 Uganda Participatory Poverty Assessment Study identifies lack of access to clean water as one of the main causes of poverty and disease in Uganda. The health benefits of clean water, particularly for children, are well established in the epidemiological literature – access to clean water is inversely correlated with child malnutrition, morbidity, and mortality.

5.25 Since 1997 the water sector has undergone several reforms. These reforms have sought to increase the performance and cost-effectiveness of water services while maintaining the government's commitment to providing equitable and sustainable service. The reforms seek to provide sustainable safe water and sanitation facilities, based on management responsibility and ownership by users, within easy reach of 65 percent of rural populations and 80 percent of urban populations by 2005, with 80–90 percent effective use and functionality of facilities. The longer term goal is to provide universal access to urban populations by 2010 and to rural populations by 2015 (Republic of Uganda 1999). The legal and regulatory framework for the management of water supply and sanitation services in Uganda is contained in a number of statutes and policy documents, including the Water Statute of 1995, the National Water and Sewerage Corporation Statute of 1996, the Local Government Act of 1997, the National Environment Management Authority Act of 1999, and the National Water Policy of 1999.

5.26 ***Uganda is on track to achieving the water access targets.*** As of 2002 about 55 percent of rural populations and 60 percent of urban populations had access to safe water. However, wide variations across districts, ranging from 25 to 75 percent, still exist.

5.27 Uganda has significantly improved access to safe water sources since 1992. Overall, the proportion of households with access to piped water increased from 7 percent in 1992/93 to 11

percent in 1999 and 13 percent in 2002/03; access to bore holes rose from 24 percent in 1992/93 to 28 percent in 2002/03, while access to protected springs rose from 22 to 26 percent. The increase in access can be attributed to the rise in spending in the water sector under the Poverty Action Fund and the PEAP focus on the sector in response to the UPPAP II findings

5.28 Despite these efforts, much work needs to be done to provide access to safe water to the entire population. Almost a third of Uganda's households (39 percent of the poorest quintile) still draw their water from open sources. About 57 percent of urban residents have access to piped water, but the figure in rural areas is just 4 percent. Although the number of households with access to piped water almost doubled between 1992/93 and 2002/03, to 13 percent, large differences exist based on income level and gender. Less than 3 percent of the poorest quintile of Ugandan households have access to piped water, while access among the top quintile is almost 40 percent. Data on household spending on water suggest that access to the national water system is limited. Only about 20 percent of Ugandan households (8.5 percent of the poorest quintile and almost 50 percent of the richest quintile) paid for water in 2002/03 (Table 5.5).

Table 5.4: Household Payments for Water, by Region and Consumption Quintile, 1992/93–2002/03

Item	Percentage of households that paid for water			Amount paid (U Sh, constant 2002 prices)		
	1992/93	1999/2000	2002/03	1992/93	1999/2000	2002/03
<i>Region</i>						
Central	14.0	26.0	34.8	3,866	5,664	6,231
East	6.4	7.6	12.7	4,258	4,925	3,986
North	1.9	1.8	12.5	1,395	4,726	2,009
West	2.7	4.3	12.7	2,482	6,390	5,502
<i>Quintile</i>						
Poorest	0.9	1.4	8.5	804	1,970	2,390
Second	1.8	1.8	10.0	1,750	3,481	2,907
Third	4.3	5.3	14.2	2,575	3,859	3,167
Fourth	8.7	10.9	26.3	3,396	4,488	5,363
Richest	26.0	41.2	48.6	4,451	6,326	7,311
All Uganda	6.9	11.5	19.7	3,694	5,574	5,250

Source: Author calculations based on data from the 1992/93, 1999/2000, 2002/03 Ugandan National Household Surveys.

5.29 Many Ugandans live far away from sources of water, let alone clean water. Having to haul water from far away adds to the burden of time poverty.⁴¹ The average household travels 5.8 kilometers to collect drinking water. Poorer households cover longer distances than other household to access water (for both drinking and other use), with the poorest quintile going about 7 kilometers and the richest about 3.4 kilometers. Rural households travel more than 6 kilometers to collect water for all uses, while urban households travel shorter distances. The difference is even greater for drinking water. These differences reflect the emphasis of water sector policy on the provision of drinking water rather than water for other purposes, including production,

⁴¹ The recently completed country gender assessment addresses household time poverty and its gender dimensions (World Bank 2005d).

especially in urban areas, suggesting the need to revise the sector focus toward rural areas, where the majority of Ugandans live. Given that more than 37 percent of households reported obtaining their water from open sources in 2002, the government needs to focus on providing bore holes and protected springs in order to serve the rural population.

AGRICULTURAL EXTENSION/ADVISORY SERVICES

5.30 Agriculture remains the dominant sector in Uganda, contributing almost 40 percent of GDP and providing a means of livelihood to more than 80 percent of the population. Smallholder agriculture, which accounts for the bulk of agricultural output, has not provided a base for improving livelihoods, because its potential has not been fully exploited.

5.31 The main problems faced by the agricultural sector include lack of skilled labor, limited research and extension services, poor technology, lack of purchased inputs, and low capital (Republic of Uganda 2000a, 2000b). In addition, limited research, inadequate access to credit, poor infrastructure, small landholdings, and the nature of land tenure systems limit exploitation of Uganda's agricultural potential.

5.32 *Because agricultural production depends on weather conditions, fluctuations in the performance of the sector are significant.* Soil nutrient depletion—due to limited use of fertilizers, limited fallow period due to land scarcity, and high rates of soil erosion in hilly areas—contributes to poor agricultural performance. Areas around the South West and the Lake Victoria Crescent have the highest depletion rates, because of the depletion associated with banana plantations.

5.33 Despite the importance of smallholder agriculture in Uganda, only a small proportion of the farming population receives agricultural extension services. Only 17 percent of agricultural households received extension services in 1999 (18 percent of households headed by men and 16 percent of households headed by women) (Mpuga and Canagarajah 2004).⁴² Use of extension services is more widespread among richer households. Among the poorest quintile, just 13 percent of agricultural households were visited by extension officer in 1999. In contrast, among the richest quintile, extension officers visited 25 percent of agricultural households.⁴³ Preliminary findings of the assessment by the National Agricultural Advisory Services (NAADS) show that the program increased the value of agricultural production and farmers' incomes in the pilot districts. Estimates by the International Food Policy Research Institute and the Uganda Bureau of Statistics show that the value of crop production per acre was about 27 percent higher and per capita income 41 percent higher in subcounties implementing the NAADS. It is therefore important to roll out the NAADS program to the rest of the country.

⁴² Ideally, the data should compare male and female farmers. Avoiding a gender bias is important given the high share of women in agriculture.

⁴³ Information comes from the 1999/2000 Uganda National Household Survey, which was conducted before the Plan for the Modernization of Agriculture and National Agricultural Advisory Services were launched. Both programs aim at increasing production, diversification, and productivity of the agriculture sector by encouraging farmers to grow high-value crops and use modern farming methods.

RURAL INFRASTRUCTURE

5.34 The rural poor continue to lack access to infrastructure, despite increases in spending. Given the dominance of agriculture in Uganda's economy and the need to industrialize (most likely in the form of agro-processing), the government needs to do more to improve rural transportation and electrification. Access to electricity by rural households has increased only slightly since 1992/93, and access to electricity by the rural poor hardly changed. Access to rural feeder roads increased only slightly between 1992/93 and 2002/03 and appears to have fallen since 1999/2000 (see table 3.26). Because these investments are not commercially viable, public support is required.

5.35 *Access to telecommunications improved dramatically for all households between 1992/93 and 2002/03* These gains were boosted by advances in mobile telephone networks, financed primarily by private capital.

DECENTRALIZATION

5.36 *Political, administrative, and fiscal decentralization has been a key element of Uganda's pro-poor expenditure policy.* The decentralization program began almost as soon as the National Resistance Movement government came to power. It was enshrined into the Constitution of 1995 and is regulated by the Local Government Act of 1997. Under the constitution all powers not specifically assigned to the central government are devolved to local governments. The key unit is the district. Under the district are local administrative units, governed by elected councilors.

5.37 By the end of June 2005, Uganda's local government structures included 55 district councils and 1 city council (LC5); 151 county councils (administrative units), 13 municipal councils, and 5 city division councils (LC4); and 857 sub-county councils, 69 town councils, and 34 municipality division councils (LC3).⁴⁴ There are also 5,225 parish or ward councils (LC2) and 44,400 village councils (LC1). Within these administrative units, councils represent the population before higher levels of government, resolve local disputes, and help ensure smooth implementation of policies and projects.

5.38 One of the goals of decentralization was to promote local participation and decisionmaking, in order to empower all ethnic groups and reduce the tensions that contributed to 20 years of civil conflict. Local governments are allocated locally collected revenues, with the bulk going to the LC3 level. Election procedures have been developed with the goal of increasing inclusion and diversity in local councils. Councils are expected to be responsive not only to individual citizens in their jurisdiction but also to NGOs and local self-help groups.

5.39 The framework for participatory planning is the PEAP. Other vehicles are the District Development Plans and the subcounty and village plans, which are supposed to follow the Harmonized Participatory Planning Guides (Kamanyi 2004).

⁴⁴ The Local Council (LC) system of governance was introduced in 1986 as a way of improving participation in local affairs. The system runs from LC1 – village level through LC5 – the district/city authority.

5.40 A recent review of decentralization in Uganda concluded:

The multilayer system of local government and administrative units has provided an opportunity for the local people to get increasingly involved in planning and decisionmaking affecting their localities. The special interest groups (women, youth, and people with disabilities) are represented in all councils and, though they may not be particularly active, opportunities are opened to participate in decisionmaking in local councils. The system has benefited from the absence of ad hoc political interference from the central government in daily decisionmaking and the setting of priorities—unlike the experience of other countries. (Steffensen, Tidemand, and Ssewankambo 2004, page xii).

5.41 Political and fiscal decentralization in Uganda contributed to the major gains in access to services by the poor in outlying and rural areas between 1992/93 and 2002/03. Budget funding moves through the Poverty Action Fund directly to districts, limiting the discretion of national authorities as well as leakages due to heavy central administration.

5.42 ***The vision of bottom-up participatory planning has not been fully realized, however.*** Based on field work in three districts, Francis and James (2003) find a disconnect between the village and parish levels (LC1 and LC2) and local government levels (LC3 and LC5). They conclude that proposals from lower levels have little impact on district and subcounty budgets and programs, partly because of the weak planning skills at lower levels of administration and the limited resources over which such levels have control. They conclude that at the lower levels, the participatory planning process is more a matter of form than substance.

5.43 Using a similar methodology, Kamanyi (2004) notes that the lowest levels of government control very small amounts of money. As a result, villagers became disillusioned with the process and drop out. The high transactions costs of the system also contribute to disconnect and lack of participation. Steffensen, Tidemand, and Ssewankambo (2005) are more positive, noting that it has taken time for the various stakeholders fully to understand and appreciate their respective roles, especially concerning the tender procedures.

5.44 ***Both local NGOs and residents complain about the lack of information flow down to the parish and village levels,*** which makes it almost impossible for residents to monitor service delivery. They also complain about a lack of cooperation between NGOs and local communities in assessing needs and planning service delivery (Kamanyi 2004). The system of collecting local taxes, in which a contract to collect fees and taxes is offered for tender, is widely viewed as corrupt, regressive, and arbitrary and as a disincentive for business (Francis and James 2003; Ellis and Bahiigwa 2003; UPPAP).

5.45 Women, the elderly, youth, people with disabilities, and the chronically poor are not able to participate in village meetings and feel excluded from the process at the village and parish levels. They note that issues of accountability (such as better access to information) are not even discussed at council meetings. Most villages have not yet implemented national initiatives such as community-based monitoring and evaluation committees.

LAND POLICY

5.46 Access to land constitutes a major input to increased production. Improvement of the welfare of poor people in Uganda crucially depends on their labor and their access to productive assets, the most important of which is land.

5.47 High fertility and population growth rates limit poor people's access to land in Uganda. Large families have led to declining agricultural landholding per capita, from an estimated 2.16 hectares in 1990/91 to just 0.81 hectares in 2001/02. The result has been land shortages and uneconomic subdivisions, especially in land-scarce areas. Large family size is one of the key factors responsible for causing people to fall into poverty.

5.48 Only 30–50 percent of total cultivable land in Uganda is under productive use. Reasons for the underuse of land include limited capacity to farm large areas because of use of rudimentary technology (such as hand hoes and slashers); limited access to product and factor markets; lack of market information; insecurity in conflict areas, especially in the North, where access to land is limited; and land hoarding, including by absentee landowners.

5.49 Land markets and land rentals are vibrant in most parts of the country, but they remain largely informal. Deininger and Mpuga (2003) show that land rental markets are more important than sale markets for poor households. These markets transfer land to more efficient, relatively poor producers, providing an opportunity for the landless to access land. Rental market activity has increased recently with economic growth. The smooth functioning and growth of these markets is greatly constrained by lack of documentary evidence of ownership and lack of a developed and easily accessible land information system, which contributes to widespread land disputes and fraudulent land sales.

5.50 *Women have much less access to land than men.* As is the case elsewhere in Africa, customs, cultures, and traditions deny women ownership and control of land. They also influence the legal interpretation of women's rights when issues of land ownership and control become contentious (MISR 2004). As a result, although women account for more agricultural production than men, only a small proportion of women own land (largely through purchase, rarely through inheritance). About 97 percent of women have relatively easy access to land in terms of user rights, but only 8 percent have leaseholds and only 7 percent own land (Republic of Uganda 1999).

5.51 To increase land access by all, the government has, through the 1995 Constitution and the Land Act of 1998, made provisions for the recognition of different land ownership/tenure arrangements and the protection of bona fide tenants on mailoland⁴⁵. Implementation of the Land Act of 1998 has been slow, however, with limited impact on land registration, tenure security, and investments on land. Lack of financial and human resources, and in some instances

⁴⁵ Mailoland is a system of land ownership introduced by the colonial regime where Kings and their supporters were given large pieces of land together with land titles in return for their support. The land was measured in square miles, thus the name 'mailoland'.

unworkable provisions of the Act, are cited as some of the constraints for its slow implementation.

5.52 The vacuum created when the Land Act of 1998 barred Local Councils and Magistrate Courts from handling land cases without an immediate replacement has resulted in a spiral of land conflicts. Although the proposed District Land Tribunals have been set up and are now operating, the circuiting system, which was adopted due to lack of financial and human resources, is ineffective, leading to an accumulation of unresolved cases. The situation is exacerbated by the lack of functioning land dispute resolution mechanisms at lower local government levels. Land registration and dispute resolution services remain largely inaccessible to the very poor, who cannot afford the costs involved. Most of the poor also find accessing these services too complex, limiting their usefulness.

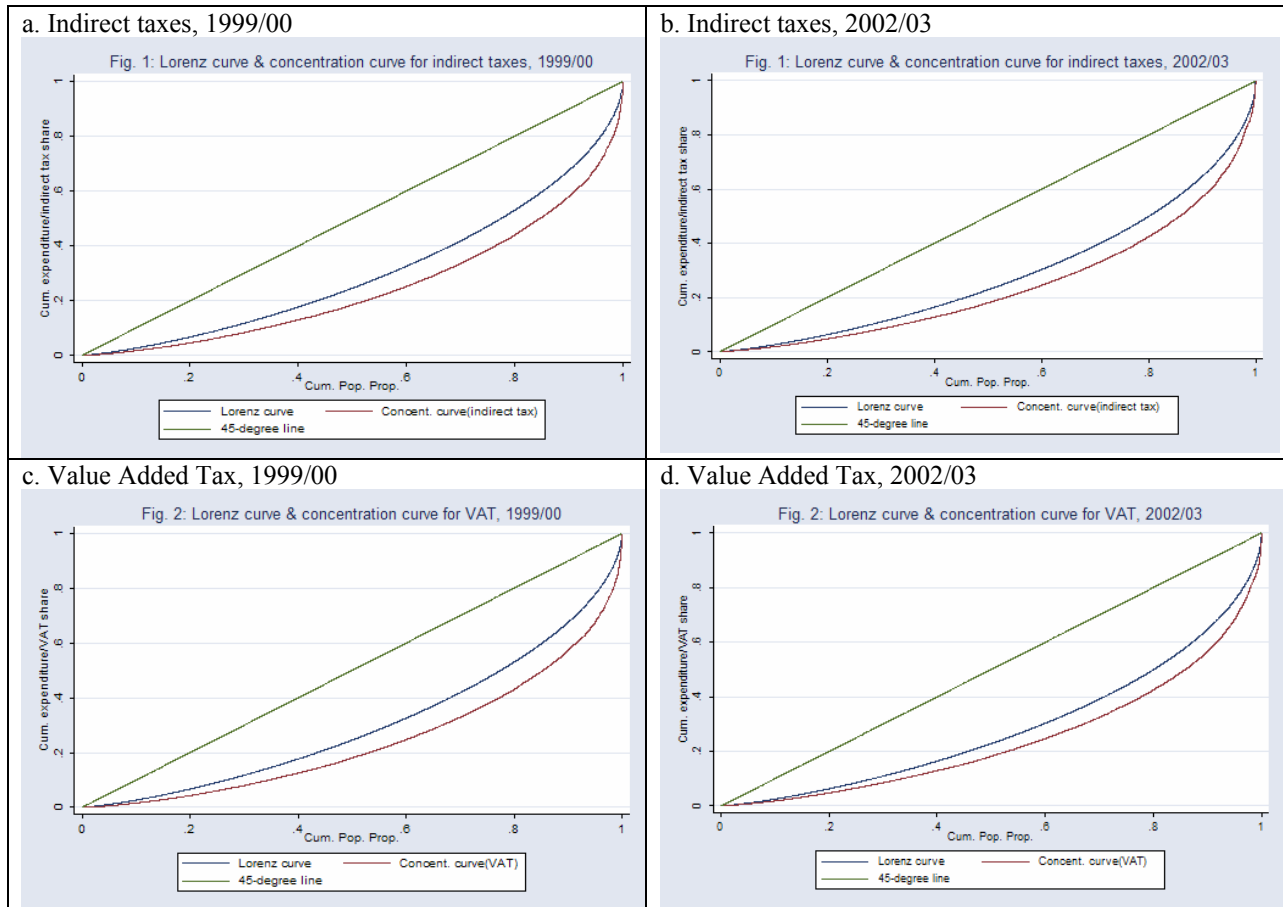
5.53 With respect to mailoland, the Land Act of 1998 is perceived to have given dual ownership rights to landlords and their tenants. This strained landlord-tenant relations and resulted in numerous illegal land evictions and sales (without compensation) and grabbing of land. Although the “consent” clause has been lauded as a major step in empowering and protecting women, it is generally deemed to be of little consequence, because its many loopholes make enforcement very difficult. The clause also fails to adequately protect the most vulnerable groups, particularly widows and orphans. There is thus a need to invigorate the operationalization of the Land Act of 1998 by improving the working of the District Land Tribunals and land registries across the country.

TAX INCIDENCE

5.54 The most important direct tax paid by poor people in Uganda is the graduated tax. Between 1997/98 and 1999/2000 the graduated tax accounted for about two-thirds of total revenues generated by district councils and one-third of town councils’ revenues (Bahigwa and others 2004). After 2000/01 the graduated tax accounted for only 40 percent of total district council revenues and 18 percent of urban council revenues. The major argument posed by proponents of abolishing the tax is that it is highly regressive and costly to collect. The issue is contentious. Proposals for abolishing the tax are made without plans for providing local councils with alternative sources of revenue. Lack of revenue could hamper local council activities, as sources of funding, especially by development partners, require counterpart funding by recipients before funds can be accessed.

5.55 Other taxes in Uganda include taxes on the consumption of goods (value-added tax, excise taxes, and import taxes), most of which are progressive. However, for income- inelastic products, such as salt and paraffin, the poor bear a heavier burden than the rich, because expenditure on these items forms a larger proportion of their total expenditure (or income) (figures 5.1 and 5.2). For sugar the evidence is mixed: for the bottom two quintiles the tax is progressive, while for the top two quintiles it is regressive. In order to ease the burden of taxation on the poor, the government may consider reducing or eliminating taxes on essential commodities that constitute a large share of their expenditures or incomes.

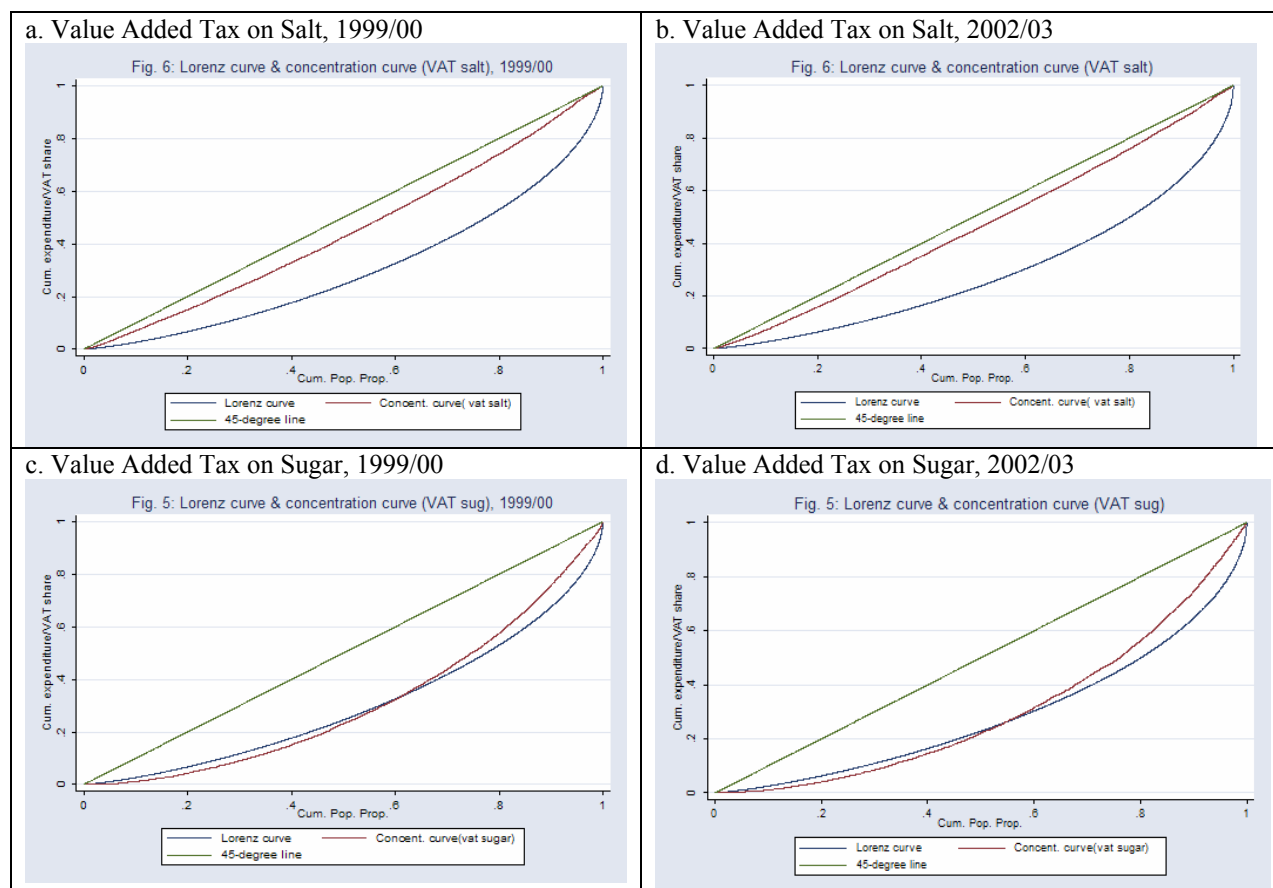
Figure 5.1: Impact of Indirect Taxes Imposed by Central Government



Note: A concentration curve that falls below the Lorenz curve of the tax distribution implies a progressive tax; one that lies above implies a regressive tax.

Source: Prepared and provided by Sarah Ssewanyana, Economic Policy Research Centre.

Figure 5.2: Impact of Taxes on Salt and Sugar Imposed by Central Government



Source: Prepared and provided by Sarah Ssewanyana, Economic Policy Research Centre -Kampala.

5.56 Unlike the ad valorem taxes imposed by the central government, the lump-sum taxes imposed by district and urban authorities are highly regressive. Small enterprises in Uganda (largely owned by the poor) bear a substantially heavier burden of trade taxes than large ones (Bahigwa and others 2004). Among rural enterprises, the smallest firms pay as much as 47 percent of their gross profits in trade taxes, while the largest pay only about 5 percent of their earnings in trade taxes. For the bottom quartile of enterprises (by value of sales), business licenses account for up to 55 percent of total taxes paid, while for the top quartile business licenses account for only 30 percent of taxes paid. The regressive nature of the local tax system can significantly constrain the poverty reduction measures being implemented, as it may act as a disincentive to off-farm activities (which often yield higher returns), which are taxed, as opposed to farming, which is not.

CONCLUSION

5.57 *Policy changes have decreased inequities in some social sectors, but many challenges remain.* The abolition of user charges and the supporting policy environment in the education and health sectors has greatly reduced inequalities in the distribution of public expenditures in these sectors. But other constraints, such as distance and transportation costs, and the poor quality of services still hamper the effective use of these services by the poor, especially in the health sector. In education the government will need to address secondary education in order to ensure that the benefits of its programs are equally distributed and that spending contributes to poverty reduction. Expenditures on increasing access to safe water have been progressive, but large inequities remain in access to protected water sources. Future efforts need to target rural areas. Large income inequalities remain in access to agricultural extension and advisory services—a serious problem given that the poorest households work in agriculture. As implemented, the government’s new land policy, while potentially a major improvement, does not adequately protect vulnerable groups. And the tax system has not been very progressive.

5.58 Implementation of the PEAPs has been pro-poor, but much more remains to be done. Limited resources are one obstacle, especially in the education sector. Other obstacles include the effect of sectoral policies and practices on the quantity and quality of services delivered to the poor. These challenges will need to be addressed in the next stage of poverty reduction.

5.59 Increased government spending on water has increased the proportion of the population with access to safe water, but large inequalities in access to safe drinking water remain. Only a small percentage of households have access to protected water; most households have to travel long distances to safe water sources. There is a need for the government to increase efforts to provide safe water sources. Adequate planning and targeting, particularly with respect to protected water sources, is critical to reaching rural residents and the poor.

5.60 *Poor people have limited access to agricultural extension and advisory services.* Given the strong policy importance attached to the agricultural sector and the need to successfully implement the Plan for the Modernization of Agriculture in Uganda, the government will need to address these inequalities by sensitizing agricultural extension workers to treat men and women and the poor and non-poor equally.

5.61 Land rental markets have a key role to play in ensuring the effective use of land, a role that will become more important with economic development. To the extent that rental markets shift land to more productive farmers, it is important to design mechanisms of land redistribution that complement rather than substitute for these markets. Spurring development of a formal land rental in Uganda would be a first step in this regard. Of course, such market transactions can thrive only where land ownership rights are clear. These rights are enshrined in the Land Act 2004, but their implementation requires a push.

5.62 In the medium term, Uganda’s marketing infrastructure will have to be improved to stem the problem of urban poverty in Uganda. In the long term, development of human capital and skills formation through education and training will be needed, so that the poor can engage in income-earning activities.

APPENDIX 1
ESTIMATING POVERTY IN UGANDA

INTRODUCTION

A.1.1 Between 1999/2000 and 2002/03, recorded poverty increased. The finding is surprising, for several reasons. First, GDP growth was strong during this period, albeit weaker than in the 1990s. Second, reported poverty increased in both rural and urban areas, despite falling food prices (most Ugandan households report buying food). Third, asset holdings increased. If real income is declining, one would expect to see reduction in assets and vice versa.

A.1.2 This Appendix reviews these two data sets carefully, and explores possible reasons in the methodology for this conundrum. The following steps are followed. First, the methodology for calculating the poverty line is reviewed. Second, the evidence from the surveys on other measures of household welfare is reviewed. Third, sampling issues are reviewed. After reviewing the contradictory trends and the methodology of the data behind them, we conclude that: (a) Ugandan data are collected and analyzed by UBOS in a very professional manner, using standard techniques, but (b) *that there are inconsistencies between the 1999/00 consumption data and the 2002/3 data that can not be explained*. These appear to arise from the calculation of the consumption aggregate. Given the difficulty of calculating a poverty line in a low income country, this is not surprising. New survey data, expected soon, may help to clarify the trends. Ugandan researchers may also wish to examine the basket used to calculate the poverty line, given changes in relative prices over time, as well as the pricing of home produced goods.

CALCULATING THE POVERTY LINE

A.1.3 The (absolute) poverty line was initially calculated in 1992, using the cost of basic needs approach. Under this approach, data on the consumption patterns of the poor are used to create a basket of foodstuffs that provides the minimum required caloric threshold. This basket is then multiplied by the appropriate price index (regionally differentiated indexes drawn from the community price surveys) to come up with the food poverty line. A total poverty line is developed based on data on consumption to meet other basic needs.⁴⁶ A needs-based adult equivalence scale is applied to household members in order to standardize for differences in household composition. Consumption per adult equivalent in the household (adjusted for spatial price differences) is then compared with the poverty line. The poverty headcount includes all households whose consumption per adult equivalent is below the poverty line.

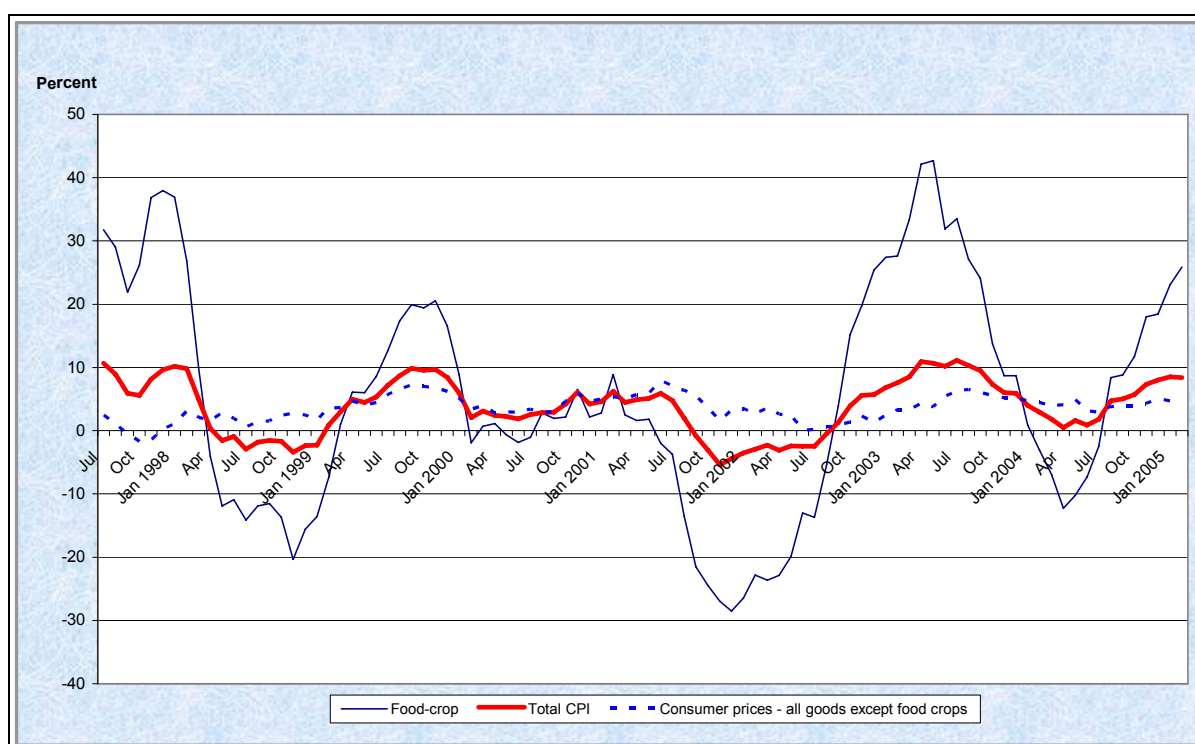
A.1.4 In order to make comparisons across years, the cost of the poverty line needs to be adjusted for inflation. In Uganda this is done by recomputing the value of the poverty line over space using the same basket but using prices from the most recent survey and then deflating the food and nonfood components of the poverty line separately using national price indices to get a “real” poverty line. In principle, this approach ensures that equal levels of welfare are compared over time. In practice, this may not be the case, because consumers substitute less expensive

⁴⁶ The addition for nonfood needs differs by areas, to incorporate the fact that nonfood basic needs are higher in urban areas, for example.

goods for more expensive goods as relative prices change. The fixed quantities approach may therefore result in a poverty line that does not represent a constant welfare standard.⁴⁷

A.1.5 How important is this problem? Food prices at the market and the farm gate are quite volatile in Uganda. Between 1999/2000 and 2002/03, market prices for *matooke* (cooking bananas) fell 50 percent overall in rural areas and in the Western Region but increased 50 percent in the Central Region (figure A1.1). The price of beef remained constant nationally but increased 25 percent in the Western Region. As a result, people in the lowest quintile shifted out of cereals and into *matooke*, and people in urban areas shifted out of roots and cereals and into meat and *matooke*. Given these changes, the 1992 basket may not accurately capture consumption spending by these groups.

Figure A1.1: Inflation in Uganda, July 1997–February 2005



A.1.6 Would using a different food basket change the poverty estimate in Uganda for 2002/3? Without performing detailed calculations, it is difficult to know, but it seems unlikely that a dramatic change would occur. If the new basket did result in a lower poverty line, however, the recorded incidence of poverty would fall.

A.1.7 Some insights can be gleaned from the experience of Mozambique, which has conducted two household surveys, in 1996/97 and in 2002/03. During this time, Mozambique experienced a substantial devaluation and significant changes in relative prices. In analyzing the 2002/03 survey, the government first computed the poverty headcount using the same basket

⁴⁷ See Ravallion (1998) for a discussion of this issue.

used in the earlier survey. It then computed the poverty line using a revised basket that contained the same number of calories but different items and in different quantities, reflecting current consumption patterns. The new basket also differed across regions, to allow for the influence of different relative prices on consumer choice. Using the old consumer basket, the change in poverty was less than half what it was using the new poverty line (table A1.1). As the new poverty line reportedly represented the same welfare in 2002/03 as in 1996/97, using the old poverty line would have substantially understated poverty reduction.

Table A1.1: Estimates of Poverty in Mozambique Using Fixed and Flexible Poverty Lines

(percent)

	<i>Poverty Headcount</i>				
	<i>1996/97</i>	<i>2002/03 fixed bundle</i>	<i>Change 1996–2002</i>	<i>2002 flexible bundle</i>	<i>Change 1996–2002</i>
<i>National</i>	69.4	63.2	-6.2	54.1	-15.3
<i>Rural</i>	62.0	61.3	-0.7	51.5	-10.5
<i>Urban</i>	71.3	64.1	-7.2	55.3	-16.0

Source: Government of Mozambique 2004

A.1.8 Uganda's next household survey data were collected in 2005/06. In producing the new poverty indices, policymakers may wish to consider adjusting the food basket so that it represents current consumption patterns. Estimates can be produced using both fixed and flexible poverty baskets to determine the scope of the difference.

COMPARING POVERTY IN 1999/2000 AND 2002/03

A.1.9 The choice of the consumption basket affects the poverty headcount and the poverty-nonpoverty comparisons, but it does not explain the results by quintile, which show declining welfare in four quintiles in all areas – consistent with the poverty numbers. Even if an argument could be made for a different poverty line, this would not affect the overall result that consumption declined for most households between surveys. Does this reinforce the conclusion that real levels of income declined for the poorest? Once again issues arise. The asset numbers show a different trend than the consumption numbers. Below, we examine this issue in more depth.

A.1.10 The asset measures of welfare presented show a marked improvement in the recent period. This trend contrasts sharply with the declines in consumption recorded in the bottom four quintiles in the recent period. Most households reported an increase in assets over the recent period, in contrast to the reported decline in real income (table A1.2). In all areas, the bottom quintile showed an increase in the percent owning a radio and in all rural areas, the percent owning a bicycle, both items which are purchased. These quintiles also report an increase in the percent owning furniture, furnishings (rug, mattress, and so forth), and electronics (radio, TV, and so forth), all goods normally bought with cash. Another item which is purchased is an iron-sheet roof. Nationally, the percentage of people in rural areas with an iron-sheet (or other permanent material for example, bricks or concrete) roof went up in all quintiles. The percentage also went up in the first quintile in all regions except the East. The percentage of people living in households with permanent walls also went up in rural areas, all quintiles, (which could partly be

the result of own labor). The one ambiguous indicator is the percentage of people living in an independent or stand alone house. In urban areas, there was a slight decline in the number living in an independent house, and the number of people living in *muzigos* (usually two-room semi-detached houses, with shared common facilities—toilet/bathroom) increased, suggesting a worsening of housing conditions for the poorest. In rural areas, there was a slight increase in the number living in houses in the first two quintiles, and an increase in the number of people living in *muzigos*, suggesting an improvement in living conditions among the poorest. However, there was a decline in the number of people living in houses in the richest quintile in urban areas, a confusing result. This data set does not have information on ownership of cattle or agricultural implements, so it is not possible to analyze the change in the whole portfolio of households.

A.1.11 The two surveys included several nonmonetary measures of consumption welfare, asking questions about diets and living conditions. These show a mixed picture (tableA1.3). Nationally, and in urban and rural areas, a higher portion of households in the lowest two quintiles in 2002/03 reported they were likely to buy salt when it ran out, rather than borrow or do without. However, in the lowest quintile in the Eastern and Western regions, the number fell slightly, with more households indicating they would do without. The proportion of those in the first quintile nationally who reported eating meat or fish in the week before the interview fell or stayed constant. Again, in the East, there was a decline in the percentage that ate meat or fish during the previous week in all quintiles.

A.1.12 As a further check on the poverty numbers, trends in real expenditures and expenditure shares were examined. Normally, if households are losing real income, purchases of nonfood items decline, so one would expect the real value of food purchased per adult equivalent to remain the same or fall slightly and the share of food in total consumption to increase. In fact, the reverse occurred (tables A1.4. and A1.5). In the two lowest quintiles, the real value of food consumed fell sharply (often by more than the total decline in consumption), while nonfood purchases increased. In rural areas the decline in real food consumption was equal to or greater than the observed decline in real consumption per adult equivalent, yet there was no decline in nonfood consumption. (Food and nonfood consumption were deflated separately, using the price data collected in the survey. Thus the decline in real food consumption is not a reflection of the change in relative prices between food and nonfood.)

Table A1.2: Living Conditions, by Area and Consumption Quintile

Item	Rural areas						Urban areas							
	Poorest quintile		Richest quintile		All quintiles		Poorest quintile		Richest quintile		All quintiles			
	1999/00	2002/03	1999/00	2002/03	1999/00	2002/03	1999/00	2002/03	1999/00	2002/03	1999/00	2002/03		
<i>Type of dwelling</i>														
House	36.7	40.9	73.3	69.6	63.6	61.0	42.4	39.3	47.0	48.8	38.4	38.6		
Muzigo (small house w/ common facilities).	1.5	4.5	10.2	20.4	5.5	10.5	41.6	45.5	52.3	51.0	57.0	57.3		
Hut	61.8	54.6	16.4	9.9	30.8	28.5	16.0	15.2	0.7	0.3	4.6	4.1		
Owens dwelling	96.2	95.2	84.3	71.8	90.9	86.2	47.3	47.0	30.2	32.7	33.7	33.9		
<i>Permanent material of dwelling</i>														
Roof	23.7	32.1	69.2	82.3	51.8	60.2	72.9	79.1	98.0	99.5	91.3	94.6		
Wall	30.0	36.4	42.8	56.8	34.9	45.3	47.9	54.2	91.9	95.9	76.6	81.2		
<i>Household access to:</i>														
Electricity	4.2	4.7	15.6	23.0	9.9	12.8	72.8	71.3	94.2	98.1	87.4	90.3		
Safe drinking water	49.7	60.6	58.6	67.7	52.3	63.2	76.6	83.3	97.1	95.9	93.9	93.6		
Toilet/latrine	59.7	66.2	91.8	94.2	82.3	84.4	81.6	87.5	99.4	99.6	97.7	98.3		
<i>Household assets:</i>														
Furniture	72.1	80.4	90.7	91.1	86.2	89.4	90.8	91.1	97.4	94.4	96.0	92.5		
Furnishings	77.0	85.4	89.2	92.0	85.2	90.7	88.1	91.7	95.9	98.4	94.7	95.8		
Appliances	8.7	8.8	21.5	29.0	15.5	16.6	17.8	17.2	72.4	73.6	50.2	46.1		
Electronics	17.3	33.6	59.2	78.8	43.1	59.9	51.6	55.4	88.8	90.7	76.8	76.9		
Radio	21.4	34.8	64.5	79.7	47.9	61.7	54.0	56.2	88.1	90.4	77.2	77.2		
Bicycle	29.5	37.9	52.0	49.5	44.4	47.7	29.1	27.7	15.2	14.4	21.7	19.7		

Source: Author calculations based on the 1999/2000 and 2002/03 Ugandan National Household Survey

Table A1.3: Welfare Indicators of Poorest and Richest Consumption Quintiles, by Area

(percent)

Region/quintile	<i>Ate fish or meat last week</i>		<i>Did without salt when ran out</i>	
	1999/2000	2002/2003	1999/2000	2002/2003
<i>National</i>				
Poorest quintile	43.7	43.1	18.1	11.5
Richest quintile	77.6	79.5	2.6	1.6
All	64.3	67.2	5.9	3.9
<i>Rural</i>				
Poorest quintile	41.7	41.9	18.9	12.1
Richest quintile	74.1	80.4	3.2	2.0
All	61.8	65.7	6.6	4.4
<i>Urban</i>				
Poorest quintile	65.5	62.7	6.0	4.3
Richest quintile	79.1	76.4	1.8	1.0
All	77.9	74.3	2.1	1.4
<i>Central</i>				
Poorest quintile	48.4	52.9	8.6	5.8
Richest quintile	80.9	81.1	1.8	1.4
All	70.4	72.6	3.7	2.4
<i>Eastern</i>				
Poorest quintile	55.2	52.9	4.4	5.8
Richest quintile	82.7	78.9	3.2	3.0
All	72.5	67.7	3.6	3.4
<i>Northern</i>				
Poorest quintile	29.1	30.4	42.6	25.3
Richest quintile	87.5	83.6	6.7	3.0
All	66.7	64.7	18.1	9.9
<i>Western</i>				
Poorest quintile	21.1	32.3	2.1	7.3
Richest quintile	63.2	73.9	2.1	1.0
All	45.2	60.5	1.5	2.8

Source: Author calculations based on the 1999/2000, and 2002/03 Ugandan National Household Surveys

A.1.13 The asset and the expenditure data suggest that the consumption data from the two surveys may be incompatible. This incompatibility may stem from different consumption estimates or different samples (that is, the underlying populations may not have been equivalent). Considering the first point, the consumption measurement module of the survey was the same in both years, as were the instructions for interviewers. The 1999/2000 survey included a module to measure agricultural production, which could have biased these consumption estimates upward, as it would have triggered a better recall of consumption. But in both rural and urban areas, both the absolute value of food and the food share were lower. If the agricultural production module were the problem, one would have expected the difference to be smaller in urban areas. The intertemporal deflator (the Consumer Price Index [CPI]) may also have been biased toward urban areas, distorting the measurement of real food consumption. However, even in current shillings the food share declined, so whatever problems were introduced by using the CPI cannot explain the large differences observed. It is still possible that the consumption measurements are incompatible, as a result of slight differences in the phrasing of the question, interviewer training, variations in supervision or quality control systems in the field. Such differences have

not been detected by the Uganda Bureau of Statistics, however, which tried to minimize such variations.⁴⁸

A.1.14 Differences in the sampling between the two surveys were also considered. The sampling frame was changed between the two surveys. The 2002/03 survey used a new frame, based on the new census. In principle, this change should not matter much, but in a country in which the population is growing rapidly, the sampling frame could get out of whack – in other words, it does not properly account for the current population - near the end of the period between censuses. Second, implementation of the 1999/2000 survey suffered from funding problems, which forced the sample size to be cut in the middle of the survey, by reducing the number of areas sampled (primarily in rural areas). The final sample size was still large (10,696 households), about the same size as the 2002/03 sample size (9,711). The Uganda Bureau of Statistics compensated for the change with sample weights and is confident that the weighted 1999/2000 survey adequately represents the population.

A.1.15 Estimates for household demographic variables in the 1999/2000 Ugandan National Household Survey were compared with those from the 2000 Demographic and Health Survey (which used the same sampling frame). Younger (2004) finds the cumulative density function for one measure of poverty—height for weight—yielded by the 1999/2000 Ugandan National Household Survey to be significantly below that in the 2000 Demographic and Health Survey, suggesting a possible sample bias away from the poor. Comparison of demographic variables nationally, by region, and by area (rural or urban) for this study did not find any key variables for which the confidence intervals did not overlap.

A.1.16 In sum, our investigation did not show a reason why the asset numbers would show a different trend than the consumption numbers. What is unusual in these two data sets is that the asset measures seemed to suggest an increase in cash in many households, thus allowing them to purchase items which they would not have in the past. It is possible that this increase in cash occurred in 2001/02, for example, which allowed some purchases of assets, but by the next year they were poor again. But in this case, why did the share of nonfood in total consumption go up, even in the lowest quintile? Why didn't household sell some assets to buy food if their poverty situation was worsening?

A.1.17 How can these two trends be reconciled? Which numbers are “right”? *In general, asset numbers are usually more trustworthy than consumption numbers.* Unlike other variables such as presence or absence of a sheet metal roof or level of education, consumption is an aggregation of a large number of measurements. It is the sum of reported consumption volume in the household of more than 100 separate items, priced at what are expected to be comparable prices spatially and temporally. It is thus much more likely to contain errors than simpler variables as errors and biases can creep in undetected at all stages of data collection and these are difficult to trace once the aggregation and deflation has been performed. Standard tests of significance assume away these collection error problems. These tests and their confidence intervals are based on sampling theory, do not take into account the practicalities of measuring

⁴⁸ As part of her analysis of the comparability of the two surveys, Luoto, (2006) found 5 categories of non-food items which differ between the two surveys. These differences were small. For example the instructions for UNHS1 are less specific than UNHS2 in the treatment of beer purchases at restaurants.

consumption, and are not capable of offering a confidence interval in cases of measurement error. Thus, if there was a difference in how consumption was measured between the two surveys, these tests of significance would not be valid.

A.1.18 In order to estimate what would be the poverty trend if the asset trend were correct, Luoto (2006) developed a model which used the non-consumption variables (assets, household characteristics) to predict consumption in both surveys. Using the 1999/00 structural parameters on the relationship between assets and consumption, but the asset data in the 2002/3 survey, household consumption in 2002/3 was re-estimated. This model predicted a poverty headcount below the 1999/00 in all areas except the East. Even in this region, the predicted head count was well below the head count found in the 2002/3 survey. *This result implies that if the household consumption-asset structural relationship found in 1999/0 had been maintained in the 2002/3 data, estimated poverty would have been below the 1999/00 level nationally and in most areas.* The reverse is also true when the 2002/3 structural relationship was used to estimate household consumption in 1999/00 – that is, poverty was estimated to be higher in 1999/00 than was recorded in the survey. The difference in the estimates was found to be significant at the 5% level. While this analysis does not indicate which household asset-consumption relationship is the true one in the population, the strength of the change in the relationship is unusual, providing further evidence of incompatibility between 1999/00 and 2002/3.⁴⁹

A.1.19 The results of our investigation have not turned up a conclusive answer to the data puzzle. As a result, in this report, we focus on the 1992-2002 period, analyzing as much as possible the change in poverty over this ten year period, as the changes in the data are usually large enough that we can be confident of the trend. However, like many researchers in Uganda and elsewhere, we do also use the 1999/00 data to analyze trends in variables other than consumption, as these are a rich source of information. In conclusion, it has to be stressed that this examination revealed several very professionally collected and tabulated household survey data sets. The uncertainty reflected here about the conclusions which can be drawn from the data should not be construed as a reflection on the quality of the statistical system in Uganda.

⁴⁹ Luoto, (2006), suggests further checks on the valuation of home produced products, especially home-produced bread, as the structural relationship of this class of foods to others consumption items in the aggregate changed substantially between the two surveys.

Table A1.4: Real Expenditures per Adult Equivalent, by Category of Spending, Region, and Expenditure Quintile, 1999/2000 and 2002/03 (U Sh)

<i>Area/quintile</i>	<i>1999/2000</i>			<i>2002/03</i>		
	<i>All</i>	<i>Food</i>	<i>Nonfood</i>	<i>All</i>	<i>Food</i>	<i>Nonfood</i>
<i>Uganda</i>						
Poorest	11,961	8,135	3,826	11,431	7,257	4,174
Second	19,572	13,246	6,326	18,474	11,749	6,725
Third	26,577	17,507	9,070	25,269	15,050	10,219
Fourth	36,551	22,907	13,644	35,739	19,874	15,865
Richest	83,766	38,395	45,371	91,324	33,371	57,953
Total	35,682	20,037	15,646	36,433	17,456	18,977
<i>Rural</i>						
Poorest	11,443	7,811	3,632	10,966	6,993	3,973
Second	18,511	12,560	5,951	17,459	11,183	6,275
Third	24,693	16,516	8,177	23,407	14,473	8,934
Fourth	32,905	21,746	11,159	31,694	18,299	13,395
Richest	61,187	34,509	26,678	66,267	29,663	36,604
Total	29,746	18,627	11,119	29,952	16,119	13,832
<i>Urban</i>						
Poorest	22,106	12,663	9,443	20,177	10,579	9,598
Second	36,318	17,835	18,483	34,963	16,600	18,364
Third	52,414	25,227	27,187	50,376	21,810	28,566
Fourth	79,932	35,174	44,758	73,521	30,092	43,429
Richest	184,633	56,072	128,561	210,19921	51,011	159,911
Total	75,050	29,385	45,665	77,813	25,990	51,823

Source: Author calculations based on 1999/00 and 2002/03 UNHS data.

**Table A1.5: Distribution of Spending, by Area and Expenditure Quintile
1999/2000 and 2002/03**

(percent)

<i>Area/quintile</i>	<i>1999/2000</i>					<i>2002/03</i>				
	<i>Food</i>	<i>Education</i>	<i>Health</i>	<i>Other</i>	<i>All nonfood</i>	<i>Food</i>	<i>Education</i>	<i>Health</i>	<i>Other</i>	<i>All nonfood</i>
<i>Uganda</i>										
Poorest	68.2	2.3	3.1	26.4	31.8	63.5	2.3	3.7	30.5	36.5
Second	67.7	2.8	3.5	26	32.3	63.6	3.5	3.4	29.5	36.4
Third	65.9	3.7	4	26.5	34.1	59.7	4.5	4.1	31.7	40.3
Fourth	62.8	4.9	4.3	28	37.2	55.8	5.4	4.5	34.2	44.2
Richest	52	8	4.8	35.3	48	43.1	9.1	4.8	43	56.9
Total	63.3	4.3	3.9	28.4	36.7	57.1	5	4.1	33.8	42.9
<i>Rural</i>										
Poorest	68.5	2.2	3	26.4	31.5	63.8	2.3	3.7	30.3	36.2
Second	67.9	2.7	3.5	25.9	32.1	64	3.2	3.4	29.4	36
Third	6.7	3.3	4	25.7	33	62	4.1	3.6	30.3	38
Fourth	66.2	3.8	4	26.1	33.8	57.8	4.8	4.5	32.9	42.2
Richest	59.7	6.4	5.5	28.4	40.3	49.3	7.6	5.5	37.6	50.7
Total	65.8	3.7	4	26.5	34.2	59.4	4.4	4.1	32.1	40.6
<i>Urban</i>										
Poorest	57.7	5.8	3.7	32.8	42.3	53.1	6.2	3.8	36.9	46.9
Second	49.1	9.3	3.2	38.5	50.9	47.6	7.9	3.4	41.1	52.4
Third	48.2	8	3.7	40.1	51.8	43.4	8.9	5	42.7	56.6
Fourth	44	9.6	3.2	43.1	56	41.2	8.4	3.9	46.6	58.8
Richest	34.1	10.7	3.7	5.15	65.9	29.3	12.5	2.5	55.7	70.7
Total	46.6	8.7	3.5	41.2	53.4	42.9	8.7	3.7	44.6	57.1

Source: Author calculations based on the 1999/00 and 2002/03 UNHS data.

APPENDIX 2
SELECTED TABLES AND FIGURES

Table A2.1: Changes in Real per Capita Consumption and Poverty

<i>Area</i>	<i>1992/93–1997/98</i>		<i>1997/98–1999/2000</i>		<i>1999/2000–2002/03</i>		<i>1992/93–2002/03</i>	
	<i>Change in real per capita consumption</i>	<i>Change in poverty headcount</i>	<i>Change in real per capita consumption</i>	<i>Change in poverty headcount</i>	<i>Change in real per capita consumption</i>	<i>Change in poverty headcount</i>	<i>Change in real per capita consumption</i>	<i>Change in poverty headcount</i>
National	4.0	10.7	7.9	11.2	0.7	-3.9	4.2	18.0
Rural	4.0	10.5	5.9	11.8	0.2	-4.3	3.4	18.0
Urban	3.1	11.1	14.4	7.1	1.2	-2.6	5.8	15.6
Center	5.4	17.7	9.3	8.2	1.6	-2.6	5.4	23.3
Eastern	2.5	4.5	10.4	19.3	-3.7	-11	2.9	12.8
Northern	4.0	11.3	-2.0	-2.7	0.6	0.3	1.2	8.9
Western	3.4	10.3	9.9	16.6	0.1	-5.2	4.3	21.7

Note: Per capita consumption measured in 1997/98 U Sh per month. Negative numbers in the change in the poverty headcount indicate an increase in poverty.

Source: Author calculations based on the 1992/93 Integrated Household Survey and the 1999/2000, and 2002/03 Ugandan National Household Surveys.

Table A2.2: Average Annual Growth Rate of Expenditure Aggregates, 1992/93–2002/03*(percent)*

<i>Item</i>	<i>1992/93–1997/98</i>	<i>1997/98–1999/2000</i>	<i>1999/2000–2002/03</i>	<i>1992/93–2002/03</i>
GDP (market prices)	7.6	6.5	5.6	6.9
Private consumption	8.5	8.8	5.7	7.4
Private investment	12.7	3.2	5.7	10.8
Government	9.7	5.1	5.9	8.3
Exports	10.6	-8.8	0.7	10.3
Imports	7.3	-5.9	-0.1	6.6
External terms of trade index	6.1	-9.6	-3.8	-2.2
Internal terms of trade index	0.4	-3.8	-2.5	-2.3

Source: Uganda Bureau of Statistics.

Table A2.3: Growth in Private Consumption, 1992/93–2002/03*(percent)*

<i>Item</i>	<i>1992/93–1997/98</i>	<i>1997/98–1999/2000</i>	<i>1999/2000–2002/03</i>	<i>1992/93–2002/03</i>
<i>National accounts</i>				
Total	8.5	8.8	5.7	7.4
Per capita	5.1	5.4	2.3	4.0
<i>Survey data (per capita)</i>				
National	3.1	8.5	0.9	3.9
Rural	3.2	6.4	0.1	3.2
Urban	2.3	14.3	2.2	5.4

Source: Economic Policy Research Centre and Uganda Bureau of Statistics.

Table A2.4: Inequality in Uganda, by Region and Consumption Quintile, 1992/93–2002/03

<i>Item</i>	<i>Mean expenditure/national average</i>				<i>Gini coefficient</i>			
	<i>1992/93</i>	<i>1997</i>	<i>1999/2000</i>	<i>2002/03</i>	<i>1992/93</i>	<i>1997</i>	<i>1999/2000</i>	<i>2002/03</i>
<i>National</i>	1.00	1.00	1.00	1.00	0.36	0.35	0.40	0.43
Rural	0.88	0.88	0.83	0.82	0.33	0.31	0.33	0.36
Urban	1.83	1.78	2.10	2.14	0.40	0.35	0.43	0.48
<i>Region</i>								
Central	1.28	1.37	1.41	1.45	0.40	0.36	0.42	0.46
Eastern	0.89	0.84	0.89	0.78	0.33	0.33	0.35	0.36
Western	0.93	0.92	0.96	0.95	0.32	0.28	0.32	0.36
Northern	0.77	0.76	0.58	0.58	0.34	0.31	0.34	0.34
<i>Quintile</i>								
Poorest	0.34	0.37	0.34	0.31	0.14	0.12	0.15	0.14
Second	0.57	0.59	0.56	0.51	0.06	0.06	0.07	0.06
Third	0.79	0.80	0.76	0.69	0.05	0.05	0.07	0.05
Fourth	1.11	1.11	1.04	0.98	0.06	0.06	0.08	0.07
Richest	2.18	2.12	2.37	2.50	0.23	0.22	0.30	0.33

Note: Quintiles calculated at the national level.

Source: Okidi and others 2004.

Table A2.5: Within- and Between-Group Inequality in Uganda, 1992/93–2002/03 (Theil index)

<i>Item</i>	<i>1992/93</i>	<i>2002/03</i>
<i>Rural/urban</i>		
Within-group	83.9	80.5
Between-group	16.1	19.5
<i>Regional</i>		
Within-group	92.5	87.4
Between-group	7.5	12.6
<i>Education level of household head</i>		
Within-group	83.8	75.2
Between-group	16.2	24.8
<i>Household size</i>		
Within-group	93.9	91.7
Between-group	6.1	8.3

Note: Entries show the percentage contribution of within- and between-group inequality to total inequality. Between-group inequality is total population inequality, calculated under the assumption that each individual's consumption equals the mean in the sub-group she belongs to. Within-group inequality is a weighted sum of intra-group inequality in each sub-group. The Theil index for the total population is the sum of within- and between-group inequality.

Source: Okidi and others 2004.

Table A2.6: Household Characteristics, by Consumption Quintile, 1999–2003

<i>Characteristic and date</i>	<i>Poorest quintile</i>	<i>Second quintile</i>	<i>Third quintile</i>	<i>Fourth quintile</i>	<i>Richest quintile</i>	<i>All quintile</i>
<i>Percent urban</i>						
1992/93	3	5.9	8.7	12.2	32.3	14.4
1999/2000	2.2	4.5	7.1	13.9	39.4	15.7
2002/03	2.8	4.7	7.8	15.3	40.9	17.0
<i>Household size</i>						
1992/93	6.1	5.3	4.8	4.5	3.6	4.7
1999/2000	6.3	6.0	5.6	4.9	4.0	5.2
2002/03	6.2	5.8	5.5	4.9	3.9	5.1
<i>At least one orphan</i>						
1992/93	—	—	—	—	—	—
1999/2000	25.4	22.9	20.3	20.9	17.7	21.1
2002/03	20.1	16.8	20.4	19.3	16.8	18.5
<i>Number of children</i>						
1992/93	3.3	2.8	2.4	2.2	1.6	2.4
1999/2000	3.5	3.4	3.0	2.5	1.8	2.7
2002/03	3.5	3.2	3.0	2.5	1.7	2.7
<i>Female headed</i>						
1992/93	24.3	25.1	24.9	24.8	28.2	25.7
1999/2000	31.5	24.5	23.8	26.3	29.1	21.1
2002/03	27.5	21.8	23.6	23.6	30.9	25.9
<i>Dependency ratio</i>						
1992/93	1.6	1.4	1.3	1.2	0.9	1.2
1999/2000	1.8	1.6	1.5	1.3	0.9	1.3
2002/03	1.7	1.6	1.4	1.2	0.8	1.3

— Not available.

Note: Quintiles calculated at the national level. Orphans are defined as children having lost at least one parent. The demographic dependency ratio is defined as the number of household members under 15 or over 64 divided by the number of household members 15–64.

Source: Author calculations based on the 1992/93 Integrated Household Survey, and the 1999/2000 and 2002/03 Ugandan National Household Surveys.

Table A2.7: Sectoral Employment, by Gender 1992/93–2002/03

(percent)

Sector	1992/93			1999/2000			2002/03			Change 1992/93- 2002/03		
	<i>M</i>	<i>F</i>	<i>A</i>	<i>M</i>	<i>F</i>	<i>A</i>	<i>M</i>	<i>F</i>	<i>A</i>	<i>M</i>	<i>F</i>	<i>A</i>
Agriculture	73.6	89.4	81.5	71.7	85.9	79.1	60.2	77.8	69.4	-0.2	1.2	0.6
Industry	7.0	2.3	4.6	6.3	2.3	4.2	10.6	4.2	7.3	6.1	9.1	6.9
Trade and transportation ^a	9.9	4.0	6.9	11.9	7.8	9.7	19.2	12.1	15.5	8.8	14.6	10.8
Government services	7.1	3.0	5.0	5.7	2.3	3.9	6.1	3.0	4.5	0.3	2.7	1.1
Other services	2.4	1.3	1.9	4.4	1.8	3.0	4.0	2.8	3.4	6.8	10.6	8.3

Note: Data include all working individuals over the age of 10.

a. Includes restaurants, hotels, transportation, and communications.

Source: Author calculations based on 1992/93 Integrated Household Survey and 2002/03 Ugandan National Household Survey.

Table A2.8: Level of Education, by Gender, 1992/93–2002/03

(percent)

Level of education	1992/93			1999/2000			2002/03		
	<i>Males</i>	<i>Females</i>	<i>All</i>	<i>Males</i>	<i>Females</i>	<i>All</i>	<i>Males</i>	<i>Females</i>	<i>All</i>
No formal	24.3	45.3	35.7	20.6	41.0	31.7	14.0	28.6	21.9
Some primary	44.9	35.8	39.9	42.8	37.1	39.7	41.9	41.4	41.6
Completed primary	8.8	7.0	7.8	12.5	9.3	10.8	15.8	11.9	13.7
Some secondary	10.4	5.0	7.5	13.0	7.5	10.0	16.2	11.3	13.6
Completed secondary	4.2	1.5	2.8	4.7	2.5	3.5	5.5	3.3	4.3
Postsecondary	3.6	1.3	2.3	5.3	1.6	3.3	5.6	2.4	3.9
Not stated ^a	3.8	4.0	4.0	1.1	1.0	1.0	1.0	1.0	1.0

Note: Data include all individuals older than 10 who are not enrolled in school.

a. Many of those who did not state their education level subsequently reported vocational training.

Source: Author calculations based on 1992/93 Integrated Household Survey and the 1999/2000 and 2002/03 Ugandan National Household Surveys.

Figure A2.1: Regression Results: Determinants of Wages for Paid Employment, by Gender, 1999/2000

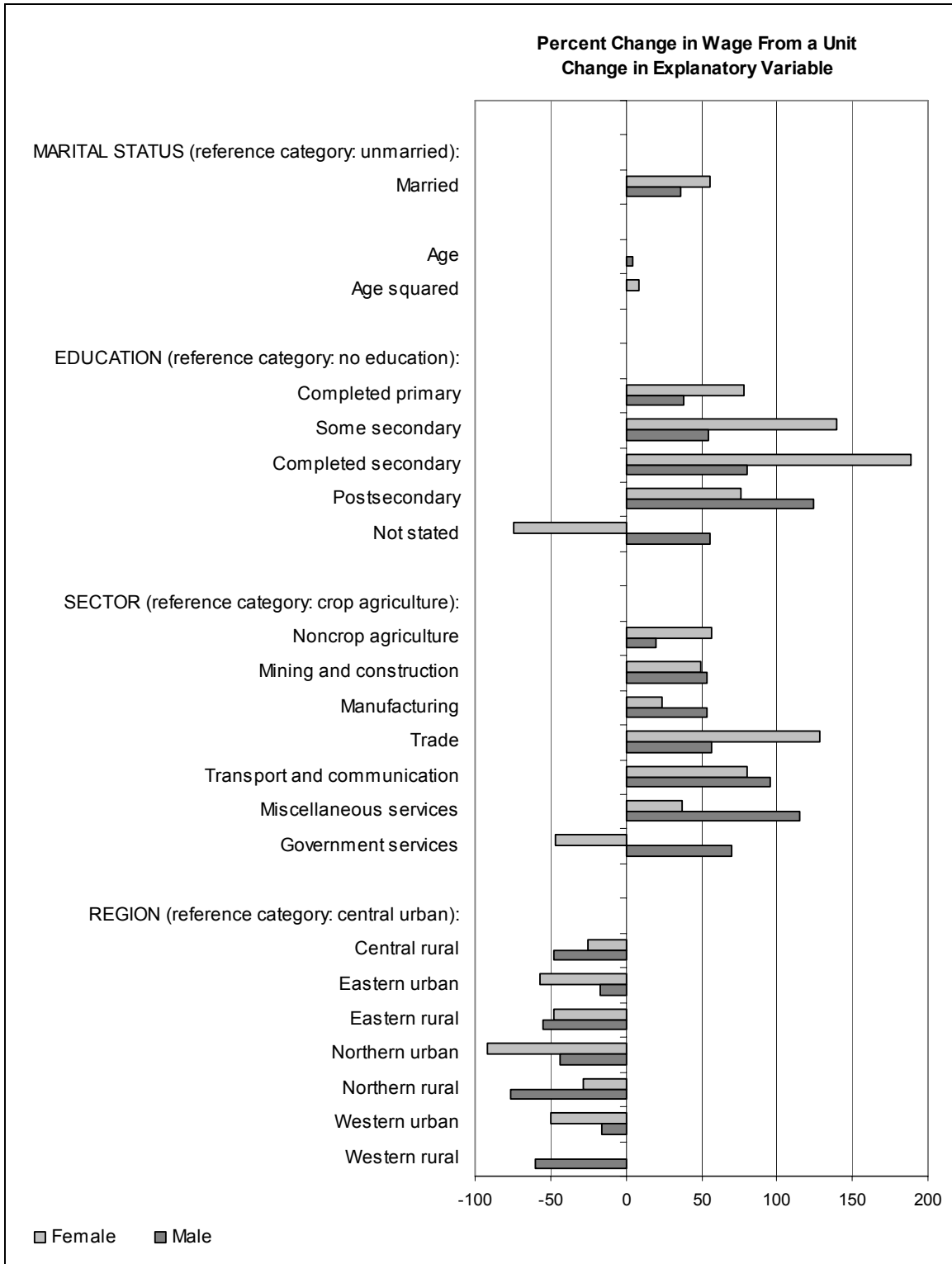


Table A2.9: Determinants of Wages for Paid Employment, by Gender, 1999/2000 and 2002/2003

Variable	1999/2000		2002/03	
	Female	Male	Female	Male
Age	0.098	0.042	0.042	0.069
Age squared	-0.001	0.000	0.000	-0.001
<i>Marital status</i> (reference category: unmarried)				
Married	0.087	0.366	0.133	0.157
Divorced or separated	0.108	0.060	0.089	-0.169
Widowed	-0.171	-0.233	0.266	-0.361
<i>Education</i> (reference category: no formal)				
Some primary education	0.121	0.088	0.066	0.023
Completed primary education	0.553	0.380	0.273	0.142
Some secondary education	0.777	0.549	0.417	0.295
Completed secondary education	1.392	0.801	0.993	0.578
Postsecondary education	1.890	1.245	1.464	1.194
Not stated	0.761 ^a	0.556^a	0.285 ^a	0.485 ^a
<i>Sector</i> (reference category: crop agriculture)				
Noncrop agriculture	-0.747 ^a	0.196	1.411^a	0.279
Mining and construction	0.571 ^a	0.537	1.260^a	0.753
Manufacturing	0.497	0.531	0.490	0.480
Trade	0.235	0.566	0.346	0.632
Transport and communication	1.281	0.953	1.032	0.925
Miscellaneous services	0.803	1.152	0.605	0.594
Government services	0.377	0.698	0.307	0.371
<i>Employment status</i> (reference category: permanent)				
Temporary			-0.455	-0.251
Casual			-0.469	-0.325
<i>Region</i> (reference category: Central urban)				
Central rural	-0.468	-0.476	-0.291	-0.273
Eastern urban	-0.251	-0.174	-0.085	-0.233
Eastern rural	-0.571	-0.545	-0.369	-0.404
Northern urban	-0.474	-0.435	-0.226	-0.109
Northern rural	-0.919	-0.763	-0.363	-0.227
Western urban	-0.284	-0.163	-0.062	-0.135
Western rural	-0.494	-0.600	-0.176	-0.405
Constant	7.823	9.032	9.063	9.032
R-squared	0.546	0.518	0.623	0.481
Number of observations	709	2,248	893	1,992

Note: Earnings in 1999/2000 refer to main usual activity, earnings in 2002/03 to current activity status. In both years earnings refer to cash payments. The analysis is restricted to people 10 years and older with paid employment. Bolded coefficients are significant at the 95 percent level. Data on temporary and casual employment status is not available for 1999. a. Represents less than 1 percent of sample. Source: Author calculations based on 1999/2000 and 2002/03 Ugandan National Household Surveys.

Table A2.10: Sector of Employment, by Household Consumption Quintile, 1992/93 and 2002/03

<i>Sector/year</i>	<i>Poorest quintile</i>	<i>Second quintile</i>	<i>Third quintile</i>	<i>Fourth quintile</i>	<i>Richest quintile</i>
<i>Agriculture</i>					
1992/93	21.5	21.7	21.4	19.9	15.6
2002/03	23.6	22.6	20.9	19.1	13.8
<i>Industry</i>					
1992/93	9.0	16.0	16.2	21.2	37.6
2002/03	7.8	14.0	17.0	26.2	35.1
<i>Trade and transportation</i>					
1992/93	5.0	7.4	13.2	22.2	52.2
2002/03	4.4	9.5	14.6	22.5	48.9
<i>Government</i>					
1992/93	6.4	10.4	18.2	18.7	46.4
2002/03	4.0	5.5	11.3	22.7	56.6
<i>Other services</i>					
1992/93	3.3	12.7	8.7	16.3	59.1
2002/03	6.8	8.0	10.7	10.5	64.1

Source: Author calculations based on the 1999/2000 and 2002/03 Ugandan National Household Surveys

Table A2.11: Type of Employment, by Consumption Quintile, 1992/93 and 2002/03

<i>Sector/year</i>	<i>Poorest quintile</i>	<i>Second quintile</i>	<i>Third quintile</i>	<i>Fourth quintile</i>	<i>Richest quintile</i>
<i>Self-employed in agriculture</i>					
1992/93	18.4	20.7	21.6	21.2	18.1
2002/03	20.9	22.4	21.7	19.5	15.6
<i>Self-employed other sectors</i>					
1992/93	6.3	8.8	12.4	21.4	51.2
2002/03	6.0	11.4	16.5	22.7	43.3
<i>Government employees</i>					
1992/93	6.2	12.1	16.8	19.7	45.3
2002/03	4.6	5.6	11.5	23.6	54.7
<i>Private employees</i>					
1992/93	9.2	13.3	17.9	20.8	38.9
2002/03	10.0	11.7	12.7	20.1	45.5
<i>Unpaid family and domestic workers</i>					
1992/93	24.7	21.7	19.7	18.1	15.8
2002/03	23.9	21.3	19.5	19.0	16.3

Note: Data cover all individuals age 10 and older who are employed, including domestic workers and unpaid family workers.

Source: Author calculations based on 1992/93 Integrated Household Survey and the 2002/03 Ugandan National Household Survey.

Table A2.12: Percentage of Household Heads Working in Crop Agriculture, by Consumption Quintile, 1992/93–2002/03

<i>Item</i>	<i>Poorest quintile</i>			<i>Richest quintile</i>			<i>All</i>		
	<i>1992/93</i>	<i>1999/2000</i>	<i>2002/03</i>	<i>1992/93</i>	<i>1999/2000</i>	<i>2002/03</i>	<i>1992/93</i>	<i>1999/2000</i>	<i>2002/03</i>
<i>National</i>	80.3	77.4	72.1	43.7	41.0	19.7	65.0	65.0	49.2
<i>Area</i>									
Rural	81.9	78.2	73.8	63.7	66.8	35.9	74.2	75.3	57.6
Urban	26.9	26.8	23.7	3.4	4.1	2.7	10.2	10.3	7.9
<i>Region</i>									
Central	73.8	78.4	64.4	22.4	20.1	9.0	51.0	51.9	34.7
Eastern	83.7	83.7	76.8	54.9	51.6	37.8	70.6	68.4	60.0
Northern	77.5	65.1	71.2	66.9	65.4	45.6	75.3	71.7	65.2
Western	79.8	84.3	68.0	58.6	57.4	23.1	71.0	73.6	46.9

Note: Quintiles calculated at the regional level. Households categorized based on the main sector in which the household head works.

Source: Author calculations based on the 1992/93 Integrated Household Survey and the 1999/2000, and 2002/03 Ugandan National Household Surveys.

Table A2.13: Percentage of Noncrop Enterprises, by Region and Consumption Quintile, 1992/93–2002/03

<i>Region</i>	<i>All enterprises</i>			<i>Trade and services</i>		
	<i>92/93</i>	<i>99/00</i>	<i>02/03</i>	<i>92/93</i>	<i>99/00</i>	<i>02/03</i>
<i>National</i>	39.4	45.0	60.9	13.5	19.4	31.7
Poorest quintile	29.0	41.3	53.1	4.7	9.4	15.8
Second quintile	35.9	40.0	55.7	7.6	12.4	24.2
Third quintile	36.9	41.0	62.9	11.0	16.7	32.3
Fourth quintile	40.4	46.1	63.5	15.3	21.9	36.0
Richest quintile	51.1	52.6	65.3	23.3	30.2	42.0
<i>Central Region</i>	50.1	47.9	61.6	20.2	23.7	33.0
Poorest quintile	32.6	40.9	51.2	9.4	10.5	20.5
Second quintile	39.6	43.4	64.6	15.4	14.0	29.7
Third quintile	45.7	49.6	61.8	15.3	24.4	28.3
Fourth quintile	57.3	50.8	61.3	21.3	30.3	33.6
Richest quintile	70.7	51.6	65.8	33.4	32.2	44.5
<i>Eastern Region</i>	33.1	34.7	60.6	14.0	2.0	0.4
Poorest quintile	41.1	36.0	61.0	5.2	11.7	22.6
Second quintile	39.4	47.4	67.9	7.8	14.1	24.0
Third quintile	45.0	48.7	71.6	10.4	19.5	37.0
Fourth quintile	48.7	52.9	65.9	18.2	23.1	41.4
Richest quintile	42.1	45.1	65.7	22.6	28.0	43.5
<i>Northern Region</i>	39.8	48.4	61.5	4.9	2.0	0.1
Poorest quintile	37.8	57.8	63.7	3.8	3.2	0.0
Second quintile	45.6	46.6	57.1	3.6	2.4	0.2
Third quintile	42.2	43.7	56.2	4.3	1.0	0.0
Fourth quintile	37.8	46.0	69.7	3.3	1.0	0.0
Richest quintile	36.5	48.8	60.3	8.2	2.5	0.2
<i>Western Region</i>	22.9	38.2	53.7	1.9	1.0	0.1
Poorest quintile	12.2	25.8	35.7	7.8	0.7	0.0
Second quintile	20.7	33.4	44.4	8.2	1.1	0.0
Third quintile	23.3	35.4	53.4	9.1	1.4	0.2
Fourth quintile	22.9	36.9	59.3	16.8	0.4	0.0
Richest quintile	31.7	53.3	67.3	9.4	1.4	0.1

Note: Quintiles calculated at regional and national level.

Source: Author calculations based on Ugandan National Household Survey 1999/2000 and 2002/03.

Table A2.14: Decomposition of Poverty by Sector, 1992/93–2002/03

<i>Sector</i>	<i>Poverty headcount (percent)</i>				<i>Poverty gap</i>			
	<i>1992/93</i>	<i>1997</i>	<i>1999/2000</i>	<i>2002/03</i>	<i>1992/93</i>	<i>1997</i>	<i>1999/2000</i>	<i>2002/03</i>
Crop agriculture	63.6	53.0	39.1	50.4	23.7	16.9	11.3	15.5
Noncrop agriculture	52.4	37.0	41.9	33.6	20.7	11.5	14.4	9.8
Mining/construction	36.5	25.3	25.7	23.0	11.2	5.3	8.9	4.6
Manufacturing	44.4	36.4	23.3	28.4	15.8	8.0	5.2	8.0
Trade	26.5	20.5	12.7	17.4	7.6	5.8	2.6	4.3
Transport/communications	34.5	28.0	13.8	18.3	12.4	7.6	2.6	3.7
Government services	36.8	22.0	15.4	12.6	10.5	6.1	3.9	3.4
Other services	29.5	30.8	16.4	24.1	9.9	9.0	5.3	6.4
Not working	65.6	51.6	42.4	38.9	25.0	17.5	16.8	14.7

Note: Households categorized based on the main sector in which the household head works.

Source: Okidi and others 2004.

Table A2.15: Real Consumption, by Type of Employment of Household Head, 1992/93–2002/03

(1997/98 U Sh per month)

<i>Type of employment</i>	<i>Average real consumption per adult equivalent</i>			<i>Average annual growth in consumption per adult equivalent</i>		
	<i>1992/93</i>	<i>1999/2000</i>	<i>2002/03</i>	<i>92/93–99/00</i>	<i>99/00–02/03</i>	<i>92/93–02/03</i>
Self-employed in agriculture	20178	28934	27412	5.3	-0.8	3.1
Self-employed in other sector	39553	52184	47714	4.0	-1.3	1.9
Government employee	34088	64442	69307	9.5	1.0	7.4
Private employee	28109	49050	43951	8.3	-1.6	4.6
Unpaid family or domestic worker	26040	27611	33840	0.8	2.9	2.7
All	24352	35725	35741	5.6	0.0	3.9

Source: Author calculations based on 1992/93 Integrated Household Survey and 1999/2000 and 2002/03 Ugandan National Household Surveys.

Table A2.16: Migration of Household Head, by Consumption Quintile, 2002/2003
(percent)

Region	Poorest quintile			Richest quintile			All quintiles		
	Never	Once	More than once	Never	Once	More than once	Never	Once	More than once
National	63.4	28.5	8.1	29.7	46.8	23.5	49.7	35.5	14.8
Area									
Rural	64.2	28.2	7.6	40.5	42.5	17.0	56.1	31.9	12.0
Urban	35.8	40.4	23.8	14.3	52.9	32.8	18.1	53.0	28.9
Region									
Central	43.2	40.6	16.2	24.2	47.6	28.2	34.1	45.1	20.8
Eastern	67.4	25.5	6.1	37.8	41.7	21.5	58.8	28.7	12.5
Northern	69.2	23.9	6.9	31.3	41.0	27.7	61.9	26.6	11.5
Western	60.3	34.0	5.7	37.2	50.0	12.8	53.2	35.3	12.5

Note: Migration refers to the most recent move from another region by the household head during the period. Moves abroad and moves within the district, subcounty, or village are excluded. The survey does not capture internally displaced persons. Figures are based on all districts in Uganda.

Source: Author calculations based on 2002/03 Ugandan National Household Survey.

Table A2.17: Interregional Migration, by Origin and Destination, 1998–2003

Item	Destination								
	Central		Eastern		Northern		Western		All
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	
<i>Column percentages</i>									
Central	73.9	79.6	13.9	19.6	13.1	14.2	14.8	20.2	55.6
Eastern	7.4	6.8	76.3	76.9	7.3	9.9	1.3	1.7	13.9
Northern	2.8	1.6	8.3	1.6	79.6	75.9	3.0	7.7	7.6
Western	16.0	12.0	1.4	1.9	0.0	0.0	80.8	70.3	23.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Row percentages</i>									
Central	34.7	55.3	1.3	2.1	1.2	0.4	3.8	1.2	100.0
Eastern	13.9	18.9	28.3	33.5	2.6	1.0	1.4	0.4	100.0
Northern	9.6	8.0	5.7	1.3	51.5	14.8	5.8	3.4	100.0
Western	18.1	20.2	0.3	0.5	21.3	6.4	50.6	10.3	100.0
All	26.1	38.6	5.1	6.0	4.9	1.5	14.4	3.4	100.0

Note: Migration refers to the most recent move from another region by the household head during the past four years. Moves abroad and moves within the district, subcounty, or village are excluded. The survey does not capture internally displaced persons. Statistics are based on all districts in Uganda.

Source: Author calculations based on 2002/03 Ugandan National Household Survey.

Table A2.18: Reasons for Migrating*(percent)*

<i>Region/quintile</i>	<i>Looking for work</i>	<i>Other economic reasons</i>	<i>Marriage</i>	<i>Education</i>	<i>Insecurity</i>	<i>Other</i>
National	46.7	36.2	5.4	2.7	1.9	6.8
Poorest quintile	9.9	44.7	13.6	0.0	13.8	18.0
Richest quintile	50.0	36.7	3.5	3.5	0.9	5.2
Rural	46.1	34.0	6.4	0.8	3.3	9.0
Poorest quintile	10.0	34.2	17.0	0.0	16.3	22.5
Richest quintile	52.0	33.9	4.9	1.5	1.8	5.9
Urban	47.3	38.4	4.4	4.5	0.6	4.6
Poorest quintile	44.8	34.0	0.6	13.0	4.7	2.8
Richest quintile	50.9	35.3	3.4	5.5	0.2	4.6
Central Region	46.3	39.0	3.9	3.2	0.4	6.9
Poorest quintile	19.4	55.8	0.0	0.0	3.5	21.3
Richest quintile	45.0	40.6	3.0	5.5	0.1	5.8
Eastern Region	40.2	31.5	9.4	3.4	3.9	11.3
Poorest quintile	3.2	9.1	58.8	0.0	28.9	0.0
Richest quintile	43.1	29.5	6.8	4.0	3.8	12.4
Northern Region	47.3	21.3	10.2	0.0	12.6	7.8
Poorest quintile	0.0	18.4	54.4	0.0	9.9	17.3
Richest quintile	60.3	16.6	6.6	0.0	9.2	6.1
Western Region	53.8	32.7	7.5	0.6	3.3	2.2
Poorest quintile	0.0	67.0	8.1	0.0	24.9	0.0
Richest quintile	66.3	31.7	0.7	1.3	0.0	0.0

Note: Migration refers to most recent move from another region by the household head between 1998 and 2002. Moves abroad and moves within the district, subcounty, or village are excluded. The survey does not capture internally displaced persons. Statistics are based on all districts in Uganda.

Source: Author calculations based on 2002/03 Ugandan National Household Survey.

Table A2.19: Primary School Enrollment and Mean Years of Schooling, by Gender and Consumption Quintile, 1992/93–2002/03

Quintile	Net primary enrollment rate (percent)				Mean years of schooling							
	Girls		Boys		Women				Men			
	1992/93	1999/2000	2002/03	1992/93	1999/2000	2002/03	1992/93	1999/2000	2002/03	1992/93	1999/2000	2002/03
<i>National</i>												
Poorest	41.1	69.1	76.6	49.0	74.9	76.0	1.6	1.7	2.2	3.4	3.7	4.1
Richest	75.3	87.8	90.9	80.0	88.4	90.0	4.9	5.9	7.0	6.5	7.6	8.2
All	58.9	82.1	85.0	63.6	83.7	84.2	3.1	3.6	4.5	4.9	5.5	6.1
<i>Rural</i>												
Poorest	39.9	67.8	75.0	48.6	74.1	75.7	1.6	1.6	2.2	3.3	3.5	4.1
Richest	72.7	87.0	91.9	75.8	88.2	88.0	3.6	4.4	6.0	5.3	6.1	7.2
All	57.4	81.6	84.7	61.9	81.6	83.6	2.6	3.0	4.0	4.4	4.9	5.7
<i>Urban</i>												
Poorest	59.6	79.8	84.2	63.3	75.2	84.9	4.2	4.2	4.8	5.9	6.1	6.2
Richest	94.6	93.0	91.0	88.3	92.0	89.9	9.0	9.7	9.4	10.2	11.1	11.0
All	69.8	86.0	87.7	77.7	86.3	89.2	6.4	6.8	7.2	7.9	8.6	8.6
<i>Region</i>												
Central	69.1	85.5	85.3	69.0	83.2	85.1	2.6	2.9	3.7	3.5	4.2	4.5
Eastern	62.0	89.1	89.7	66.7	90.2	89.4	1.8	2.1	2.6	3.4	4.1	4.6
Northern	39.7	67.3	72.5	54.4	75.8	73.5	1.0	0.8	0.9	3.2	2.4	3.1
Western	60.4	83.4	88.0	62.3	84.3	84.3	1.5	2.4	2.5	3.1	4.1	4.2

Note: Net enrollment is defined as the total number children 6–12 currently enrolled in school as a share of the total population 6–12. Net enrollment rates for 1992/93 were obtained without excluding districts excluded in the 1999/2000 survey. Source: Author calculations based on the 1992/93, 1999/2000, and 2002/03 Ugandan National Household Surveys.

Table A2.20: Total Sick Days in Rural and Urban Areas, by Consumption Quintile, 1992/93–2002/03

<i>Quintile</i>	<i>Rural</i>			<i>Urban</i>			<i>National</i>		
	<i>1992/93</i>	<i>1999/2000</i>	<i>2002/03</i>	<i>1992/93</i>	<i>1999/2000</i>	<i>2002/03</i>	<i>1992/93</i>	<i>1999/2000</i>	<i>2002/03</i>
Poorest	4.8	6.6	6.5	2.6	5.4	5.3	4.6	6.6	6.4
Second	4.4	7.3	6.0	3.1	5.2	4.4	4.4	7.2	5.7
Third	5.0	7.1	5.7	2.3	3.6	4.4	4.8	6.9	6.0
Fourth	4.6	7.3	5.8	3.0	4.2	4.1	4.2	7.4	5.3
Richest	4.2	7.8	6.2	2.2	3.7	3.9	3.7	6.2	5.5
All	4.6	7.3	6.0	2.6	4.4	4.3	4.3	6.8	5.7

Source: Author calculations based on 1999/2000 and 2002/03 Ugandan National Household Surveys.

Note: Total sick days refer to adult working days lost due to sickness in past month. Quintiles calculated at the regional level, except national data.

Table A2.21: Household Access to Infrastructure in Rural and Urban Areas, 1999/2000 and 2002/03

(percent)

<i>Region/type of infrastructure</i>	<i>Poorest quintile</i>		<i>Richest quintile</i>		<i>All</i>	
	<i>1999/2000</i>	<i>2002/03</i>	<i>1999/00</i>	<i>2002/03</i>	<i>1999/00</i>	<i>2002/03</i>
<i>National</i>						
Electricity	6.0	6.3	46.1	54.7	22.3	26.0
Safe drinking water	50.3	61.2	73.7	79.3	58.8	68.4
Toilet/latrine	60.2	66.8	94.8	96.4	84.7	86.8
<i>Rural</i>						
Electricity	4.2	4.7	15.6	23.0	9.9	12.8
Safe drinking water	49.7	60.6	58.6	67.7	52.3	63.2
Toilet/latrine	59.7	66.2	91.8	94.2	82.3	84.4
<i>Urban</i>						
Electricity	72.8	71.3	94.2	98.1	87.4	90.3
Safe drinking water	76.6	83.3	97.1	95.9	93.9	93.6
Toilet/latrine	81.6	87.5	99.4	99.6	97.7	98.3

Note: Quintiles calculated at the national level.

Source: Author calculations based on the 1999/2000 and 2002/03 Ugandan National Household Surveys.

Table A2.22: Retrospective Perception of Access to Community Services, by Consumption Quintile, 1992–2002

(percent)

Item	Poorest quintile			Richest quintile			All		
	1992	1996	2002	1992	1996	2002	1992	1996	2002
<i>Primary school within 3 kilometers</i>									
Public school	80.8	83.4	89.6	91.1	91.8	93.3	87.5	88.9	91.7
Private school	9.3	12.6	25.3	39.7	54.1	72.1	22.0	31.0	47.6
<i>Secondary school within 10 kilometers</i>									
Public school	60.1	63.9	69.5	83.1	84.7	88.5	73.8	76.5	81.6
Private school	14.8	24.8	57.2	45.4	61.2	87.6	28.2	42.3	76.2
<i>Proximity of other services</i>									
Safe drinking water within 1 kilometer	22.9	36.3	59.0	52.6	61.7	79.6	34.0	46.4	67.4
Clinics, health facilities within 3 kilometers	29.2	34.7	56.2	71.1	75.5	85.7	48.6	54.1	70.1
Feeder/rural access road within 1 kilometer	61.1	64.4	70.6	86.3	88.3	90.8	75.2	78.0	82.6
Electricity within local community	5.1	5.2	6.3	51.2	52.0	54.7	23.1	23.5	26.0
Public telephone within 2 kilometers	1.7	2.2	11.2	18.7	26.5	53.0	8.4	11.5	28.0
<i>Markets within 5 kilometers</i>									
Market to buy inputs	36.6	39.1	41.8	72.3	74.1	74.9	55.2	57.6	58.9
Markets to sell agricultural products	40.8	43.6	45.4	75.5	76.7	78.2	59.7	61.7	63.4
Markets to sell nonagricultural products	42.7	45.4	47.4	75.1	76.7	78.0	60.2	62.4	64.0

Note: Quintiles calculated at the national level.

Source: Author calculations based on the 2002/03 Ugandan National Household Survey.

Table A2.23: Persistence of Poverty and Intersectoral Shifts, 1992–96

(percent)

Item	Main economic activity throughout the period					
	Agricultural self-employment	Nonagricultural self-employment	Agricultural employment	Nonagricultural employment	Changed Sector	Total
<i>Column percent</i>						
Poor all four years	23.3	0	0	0	9.9	12.8
Nonpoor all four years	13.5	61.9	100.0	59.4	27.5	29.9
Mixed status	63.2	38.1	0.0	40.6	62.6	57.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
<i>Row percent</i>						
Poor all four years	70.5	0	0	0	29.5	100.0
Nonpoor all four years	17.5	25.2	1.0	21.4	34.9	100.0
Mixed status	42.6	8.1	0	7.6	42.6	100.0

Source: Okidi and McKay 2003.

Table A2.24: Household Characteristics by Poverty Status, 1992 and 1999

<i>Characteristic</i>	<i>Chronic poor</i>	<i>Moving out of poverty</i>	<i>Moving into poverty</i>	<i>Never in poverty</i>	<i>All</i>
<i>Average household size</i>					
1992	6.24	5.91	5.06	4.95	5.48
1999	6.7	5.74	6.79	5.84	6.07
<i>Average alcohol consumption as percentage of all food and beverages</i>	4.5	3.7	4.5	3.3	3.8
<i>Average alcohol purchases as percentage of all food and beverages</i>	9.9	7.7	10.2	6.8	8.0
<i>Average number of cattle owned</i>					
1992	0.85	0.98	1.02	1.01	0.98
1999	0.72	0.96	0.82	1.56	1.14

Source: Lawson, McKay, and Okidi 2003.

Table A2.25: Perceived Safety from Crime and Violence, 2002/03

(percent)

<i>Item</i>	<i>Very unsafe</i>			<i>Neither safe nor unsafe</i>			<i>Generally/very safe</i>		
	<i>Poorest quintile</i>	<i>Richest quintile</i>	<i>All quintiles</i>	<i>Poorest quintile</i>	<i>Richest quintile</i>	<i>All quintiles</i>	<i>Poorest quintile</i>	<i>Richest quintile</i>	<i>All quintiles</i>
National level	13.3	4.5	8.6	26.5	17.1	16.7	60.2	78.4	74.7
<i>Area</i>									
Rural	14.1	8.6	9.2	27.1	14.2	18.9	58.7	77.2	71.9
Urban	7.7	7.5	7.7	28.8	17.9	21.9	63.6	74.6	70.4
<i>Region</i>									
Central	6.9	8.9	7.6	24.0	19.4	19.4	69.1	74.3	73.0
Eastern	11.0	5.6	6.8	23.5	19.5	19.5	65.6	79.2	73.8
Northern	24.9	17.9	18.6	38.9	26.0	26.0	36.2	64.2	55.4
Western	3.3	6.9	5.5	16.0	14.5	14.5	80.7	78.1	80.0

Source: Author calculations based on the 1992/93, 1999/2000, and 2002/03 Ugandan National Household Surveys.

Note: Quintiles calculated at the regional level, with the exception of national numbers. Households categorized based on the main sector in which the household head works.

Table A2.26: Regression Results: Determinants of Consumption per Adult Equivalent

Variable	1992		1999		2002/03	
	Rural	Urban	Rural	Urban	Rural	Urban
<i>Marital status</i>						
<i>(reference category): female-headed married)</i>						
Female headed unmarried	-0.136	-0.011	0.000	0.084	-0.052	-0.122
Female headed divorced/separated	-0.101	-0.11	-0.071	-0.085	-0.073	-0.225
Female headed widowed	-0.074	0.024	-0.001	-0.201	-0.169	-0.136
Male headed	-0.136	-0.04	-0.029	-0.066	-0.133	-0.217
Age	0.006	0.017	0.002	0.012	0.009	0.019
Age squared	-0.000	-0.000	0.000	0.000	-0.000	0.000
<i>Education of household head</i>						
<i>(reference category: no education)</i>						
Some primary education	0.145	0.183	0.159	0.247	0.203	0.183
Completed primary education	0.221	0.221	0.244	0.213	0.315	0.241
Some secondary education	0.329	0.301	0.382	0.346	0.436	0.375
Completed secondary education	0.381	0.525	0.410	0.538	0.503	0.561
Post secondary education	0.535	0.839	0.605	0.925	0.727	0.837
<i>Household size</i>						
Number of members 0–5	-0.141	-0.184	-0.114	-0.202	-0.166	-0.247
Number of members 6–9	-0.160	-0.193	-0.126	-0.153	-0.158	-0.231
Number of members 10–14	-0.140	-0.168	-0.125	-0.196	-0.152	-0.207
Number of female members 15–59	-0.134	-0.103	-0.105	-0.112	-0.115	-0.123
Number of male members 15–59	-0.159	-0.173	-0.106	-0.099	-0.141	-0.144
Number of members 60 and older	-0.108	-0.224	-0.106	-0.097	-0.084	-0.118
Household size squared	0.005	0.008	0.004	0.006		
<i>Sector in which household head works</i>						
<i>(reference category: not working)</i>						
Crop farming	0.033	-0.200	0.133	-0.044	0.043	-0.074
Noncrop agriculture	0.256	0	0.208	0.12	0.380	0.164
Mining and construction	0.273	-0.202	0.075	-0.19	0.166	-0.037
Manufacturing	0.077	-0.203	0.142	0.136	0.122	0.091
Trade	0.306	0.118	0.370	0.213	0.303	0.251
Transport and communication	0.222	0.116	0.295	0.217	0.310	0.245
Miscellaneous services	0.153	0.096	0.285	0.117	0.205	0.294
government services	0.149	-0.142	0.226	0.08	0.206	0.273
<i>Community-level characteristics</i>						
Health facility within 3 kilometer	0.115	-0.027	-0.009	-0.041	0.013	0.158
Feeder/all-weather road within 1 kilometer	0.027	-0.109	0.026	-0.032	0.058	0.156
Availability of electricity within local community	0.091	0.083	0.008	0.034	0.046	-0.037
Telephone/booth within 2 kilometers	-0.038	0.095	0.075	0.202	0.131	0.118
Market score	-0.001	0.253	0.120	0.092	0.011	0.091
Bank within 10 kilometers	0.014	0.121	0.001	-0.095	0.037	0.001
Credit with no collateral within 10 kilometers	0.025	-0.038	0.072	-0.02	0.040	0.088
<i>Region (reference category: Central)</i>						
Eastern	-0.095	-0.312	-0.166	-0.246	-0.214	-0.272
Northern	-0.209	-0.395	-0.470	-0.333	-0.450	-0.404
Western	-0.004	-0.193	-0.009	0.104	-0.129	-0.113
Constant	10.222	10.341	10.435	10.517	10.299	10.098
R-squared	0.232	0.350	0.320	0.442	0.380	0.412
Variance inflating factor for multicollinearity	3.83	4.30	3.65	3.92	3.93	4.36

Source: Author calculations based on 1999/2000 and 2002/03 Ugandan National Household Surveys.

Note: Dependent variable is log of per capita consumption. Bolded denotes significance level at 95 percent or higher.

Table A2.27: Percentage of Sick People Reporting to Hospital in Past 30 Days, by Gender, Expenditure Quintile, and Area, 1992/93–2002/03

	<i>Reported being sick (%)</i>			<i>Visited hospital when sick (%)</i>			<i>Of which government hospital (%)</i>		
	<i>All</i>	<i>Male</i>	<i>Female</i>	<i>All</i>	<i>Male</i>	<i>Female</i>	<i>All</i>	<i>Male</i>	<i>Female</i>
1992/93									
Poorest quintile	16.4	15.4	17.4	54.3	57.3	51.2	44.3	44.5	44.1
Richest Quintile	25.7	24.6	26.7	69.6	67.9	71.3	25.6	24.6	26.6
Urban Area	22.6	22.0	23.1	72.5	72.3	72.7	28.6	28.2	29.0
Rural Area	21.0	19.8	22.3	60.3	60.5	60.2	34.6	34.8	34.4
All Uganda	21.2	20.1	22.4	62.0	62.2	61.9	33.63	33.7	33.6
1999/00									
Poorest Quintile	24.5	22.8	26.3	55.7	58.1	53.3	43.6	43.3	43.9
Richest Quintile	30.0	27.9	32.2	79.2	78.6	79.8	25.8	26.2	25.3
Urban Area	26.0	24.1	29.0	75.1	75.2	74.3	21.6	23.7	20.1
Rural Area	28.2	26.5	30.1	67.6	68.4	66.8	35.8	35.9	35.8
All Uganda	28.1	26.2	29.9	68.6	69.3	67.9	33.9	34.3	33.6
2002/03									
Poorest	26.8	25.0	28.5	70.3	70.4	70.1	43.9	41.0	46.7
Richest	31.4	31.3	31.5	84.5	86.1	82.8	20.6	18.9	22.25
Urban Area	26.9	26.2	27.6	82.8	84.5	81.4	18.5	17.9	19.1
Rural Area	28.9	27.9	29.8	77.9	77.9	77.8	32.2	30.8	33.3
All Uganda	28.6	27.7	29.5	78.5	78.8	78.3	30.2	29.0	31.3

Note: Difference between means for males and females significant at the 1 percent level, except where otherwise noted. Bolded numbers represent difference between means for males and females significant at the 1 percent level.

Source: Author calculations based on UNHS 1992/93, 1999/00 and 2002/03

Table A2.28: Major Sources of and Distance to Water Supplies, by Gender, Area, and Expenditure Quintile, 1992/93–2002/03

Item	Water Source (percent)				Distance to nearest source (km)	
	Piped	Bore hole ¹	Protected ^a	Open source	Drinking water	Other use
1992/93						
Male-headed household	6.4	53.3		40.2	—	—
Female-headed household	7.3	56.8		35.8	—	—
Poorest quintile	1.0	51.7		47.3	—	—
Richest quintile	20.4	55.4		24.2	—	—
Urban area	35.2	51.6		13.2	—	—
Rural area	1.9	54.7		43.5	—	—
All Uganda	6.7	54.2		39.1	—	—
1999/2000						
Male-headed household	10.8	22.3	21.7	45.2	5.7	5.4
Female-headed household	11.9	28.5	21.5	38.1	5.7	5.2
Poorest quintile	1.5	32.7	15.5	50.3	6.4	5.6
Richest quintile	36.0	15.2	19.9	28.8	4.3	4.7
Urban area	55.5	12.7	18.8	12.8	2.6	3.9
Rural area	2.8	26.1	22.2	48.9	6.2	5.6
All Uganda	11.1	24.0	21.7	43.2	5.7	5.3
2002/03						
Male-headed household	11.8	28.5	26.1	33.5	5.6	5.2
Female-headed household	16.4	28.3	24.9	30.4	5.1	4.7
Poorest quintile	2.5	33.4	25.1	38.9	6.9	6.4
Richest quintile	38.8	19.5	18.0	23.6	3.4	3.2
Urban area	57.04	13.4	18.3	11.2	1.9	1.7
Rural area	4.0	31.5	27.3	37.1	6.1	5.7
All Uganda	13.0	28.4	25.8	32.7	5.5	5.1

Source: Author calculations based on data from the Ugandan National Household Surveys, 1992/93, 1999/00 and 2002/03. — Not available (not included in questionnaire).

a. Questions on sources of water in the 1992/93 are different from those in the 1999/2000 and 2002/03 surveys. In the 1992/03 survey, boreholes were not included explicitly. Instead, wells and tubes for personal use and shared public/private wells and tubes were included, which aggregate both boreholes and protected springs.

Table A2.29: Health Care Personnel per Capita in Selected Sub-Saharan Countries, 2003
(providers per 100,000 population)

Country	Physicians	Nurses	Midwives ¹
Kenya	14.1	108.0	—
Tanzania	4.1	85.2	44.8
Uganda	4.7	5.6	13.6
Sub-Saharan Africa	15.5	73.4	30.9

Source: World Bank 2004a.

— Not available.

¹ From the World Health Organisation data, 1994-98.

Table A2.30: Distribution of Agricultural Households and Use of Extension Services, 1992/93–2002/03

<i>Item</i>	<i>Percentage of agricultural households in population</i>			<i>Percentage of agricultural households that received extension services^a</i>	
	<i>1992/93</i>	<i>1999/2000</i>	<i>2002/03</i>	<i>1992/93^b</i>	<i>1999/2000</i>
<i>Gender of head</i>					
Male	85.9	67.5	62.5	12.2	17.9
Female	86.6	68.8	48.1	12.7	15.9
<i>Quintile</i>					
Poorest	96.2	83.5	69.7	9.3	12.6
Second	94.3	80.6	73.4	11.1	16.8
Third	91.3	75.7	67.9	13.0	18.4
Fourth	85.6	66.7	54.8	14.3	19.6
Richest	62.6	32.8	27.9	18.1	24.5
<i>Area</i>					
Urban	50.5	11.8	11.9	15.0	18.0
Rural	91.6	78.4	68.4	12.3	17.3
All Uganda	86.1	67.9	58.7	12.3	17.3
Number of households	3,730,149	4,107,332	4,938,317	560,772	560,772

Source: Author calculations based on 1992/93, 1999/00 and 2002/03 household survey data.

^a 2002/03 survey did not capture access to extension services

^b Data based on recall.

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