The Who's Who of Decision-Making in South African Households

Frikkie Booysen, Sevias Guvuriro, Celeste Campher, Calvin Mudzingiri

Department of Economics

University of the Free State

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Abstract:

Households on a daily basis take decisions with important implications for socio-economic development. The theories of intra-household decision-making include the unitary, collective and bargaining models. The National Income Dynamics Study (NIDS), a nationally representative South African panel survey, offers a unique perspective on the dynamics of intra-household decision-making. In the study, adults are asked to identify the main and, where relevant, joint decision maker in the household in respect to five decision-making spheres, including decisions on day-to-day household expenditure, the purchase of durable items, where children go to school, where the household lives and who joins the household. This paper provides a descriptive account of the nature of the decision-making process, for each decision-making sphere, and on aggregate. At the household level, these data allow one to determine the extent to which decision-making is a joint, collaborative process, whether household members are in agreement or not as to who holds the decision maker power, and if decision-making processes are characterised by centralisation and specialisation. At the individual level, the paper draws a distinction between whether an adult is a decision maker or not as well as whether an adult is a main or joint decision maker or not involved in decision-making. Based on these empirical characterisations of intra-household decision-making, the paper proceeds to outline the socio-demographic and economic characteristics of individual decision makers and of households exhibiting particular types of decision-making processes. The descriptive analysis in addition explores the extent to which financial and economic as opposed to socio-cultural factors explain differences in decision-making processes and status at the individual and household levels. Together, these descriptive accounts provide an opportunity to explore the extent to which and the conditions under which decision-making in South African households reflect the broad characteristics of the unitary, collective and cooperative or non-cooperative bargaining models of intra-household decision-making.

JEL Codes: D13 - Household Production and Intra-household Allocation

Keywords: intra-household decision making, South Africa

1. Introduction

Households on a daily basis take decisions with important implications for socio-economic development including decisions of an instrumental (money, health and food), economic (use and gathering of resources), and social (values, roles and goals) nature (Elliot and Gray, 2000). As a result, the family is at the core of the development challenge, particularly in poor communities. The broader aim of this paper is to advance our understanding of intra-household decision-making. The paper's first objective is to provide a descriptive account of the nature of the decision-making process in five distinct decision-making domains, at both the individual and household level. The second objective is to describe the socio-demographic and economic characteristics of individual decision makers and of households exhibiting particular types of decision-making processes. Lastly, the paper investigates the extent to which financial and economic as opposed to socio-cultural factors explain differences in decision-making at the individual and household levels. Together, these descriptive accounts provide an opportunity to explore the extent to which and the conditions under which decision-making in South African households reflect the broad characteristics of the unitary, collective and cooperative or non-cooperative bargaining models of intra-household decision-making.

2. Data

The National Income Dynamics Study (NIDS), a nationally representative South African panel survey, offers a unique perspective on the dynamics of intra-household decision-making. In the study, adults are asked to identify the main and, where relevant, joint decision maker in the household in respect to five decision-making spheres, including decisions on day-to-day household expenditure, the purchase of durable items, where children go to school, where the household lives and who joins the household. More specifically, the questions read as follows: "Who makes decisions about: (a) "day-to-day household expenditures (e.g. groceries)" [finances], (b) "large, unusual purchases such as appliances, vehicles or furniture" [investment], (c) "where your children should go to school" [schooling], (d) "who is allowed to live in the household as part of the household (for example, if a relative or family member does not have a place to stay)" [household formation], (e) "where the household should live" [household residence]. For each question, the interviewer recorded the person code on the household roster for the "main decision maker" and asked respondents, "if joint, who is the second decision maker" and recorded the latter individual's person code from the household roster.

These data are used in the following way to investigate key features of intra-household decision-making. We assess the extent to which decision-making is centralised or not in two ways, looking into the distribution of decision-making power within households and within individuals. First, we determine the number of decision-makers per household, in each decision-making sphere and in total. Second, we calculated the number of decisions made by each individual decision-maker, drawing a distinction between the number of principal or main decisions, the number of joint decisions and the total number of decisions.

Next, we employ the data to classify households according to select features of the alternative theories of intra-household decision-making. These models include the unitary, collective and bargaining models, with a distinction being drawn between cooperative and none-cooperative bargaining theories (Doss, 1996; Browning et al., 2006; Himmelweit et al., 2013).

We employ the available information on decision-making processes collected as part of the survey to classify households into the broad following categories: (a) "unitary" decision-making represents households including a single, resident, principal decision maker, with no joint decision-making; (b) "collective bargaining" refers to households in which decisions are made in a collaborative manner, by a single pair of or multiple principal and joint decision makers; (c) "cooperative bargaining" refers to households where decisions are made by a single pair of a principal and joint decision maker and where household members are in agreement as to who in the household fulfils the role of the principal and joint decision maker; (d) "none-cooperative bargaining" takes place in households characterised by joint decision-making, but where there is disagreement as to how decision-making responsibilities are distributed between household members. Such situations on the one hand include cases where the same person is classified as both a principal and joint decision maker by him/herself and/or other household members and on the other hand comprise cases where household members identified more than one principal or joint decision maker in a specific decision-making sphere or across all five decision-making domains.

In unitary models, the "family is assumed to act as a single decision-making unit", guided by a benevolent decision-making dictator, which may be true where there in fact is only one single decision maker present in the household. Collective models of intra-household decision-making through its sharing rule guiding the division of labour between market and household production and its accommodation of multiple decision makers to some extent imply joint decision-making. The fact that a distinction is made in regards to the relative bargaining position of multiple decision makers, i.e. whether they are the "main" or second, "joint" decision maker, is interpreted here as reflecting not only that the decision-making process is collective, but that it entail some or other form of relative bargaining position, hence the adoption of the "collective bargaining" label. In cooperative bargaining models, the assumption is that couples pool their resources and jointly allocate their resources. Maximum gains from joint decisions and Pareto efficient household consumption and production it can be argued are more likely where decision makers and other household members agree on their role in decision-making as principal and joint decision makers. In none-cooperative models in turn individuals make independent but interrelated decisions on consumption and production: disagreement as to the decision-making role of different household members presents a proxy of independence in decision-making (Doss, 1996). As such, there can be both conflict and cooperation in regards to decision-making (Himmelweit et al., 2013). Importantly, however, these classifications and the use of this terminology do not in any way reflect or approximate the true or full theory underlying each intra-household decision-making model and hence represents quite imperfect proxies for the classification of intra-household decision-making processes observed in the survey in accordance with the standard theoretical models of intra-household decision-making. However, the data used in the

analysis do allow for a glimpse on intra-household decision-making going beyond the application of econometric techniques to household-level survey data as an "indirect" test of the extent to which the outcomes of decision-making approximates the underlying theoretical models.

In the descriptive analysis of the characteristics of individual decision makers we draw a distinction between financial and economic as opposed to socio-cultural determinants of bargaining power. Financial and economic factors include household income share (%), employment status (yes/no), education (none, primary, some secondary, grade 12, tertiary), whether the respondent is a home owner, holds a bank account and has access to savings and to financial credit. The latter two variables were constructed as follows: Access to savings include reporting having a pension, annuity, unit trusts, and/or stocks or shares. Financial credit includes access to a credit or store card. Socio-cultural factors include gender (female), age (years), household headship, marital status (married, single), and family status (relation to household head: head/spouse, children, other family, none-family). Under the heading "other factors", we include race and household income. Household income, measured using quintiles of per capita household income, is not considered an individual-level determinant of individual decision-making status and hence is included in the "other" category. Race in turn represents somewhat of a catch-all, seeing that it reflects both economic and socio-cultural dimensions, and hence was not classified as belonging to either one of the two categories.

3. Method

In the analysis, each of the decision-making variables are first described individually, before the attention shifts to the bivariate analysis of the extent to which socio-demographic, socio-cultural and financial and economic factors are associated with the nature of decision-making processes and decision-making status observed at the individual and household levels. To assess the statistical significance of the latter associations, we employ chi2 tests for categorical variables, and for continuous variables, the F test in one-way analysis of variance (ANOVA). Results are weighted in accordance with the survey design of the National Income Dynamics Study (NIDS). In all cases, we report the statistical significance of these associations at the 1% and 5% levels of significance. The household-level analysis precedes the individual-level analysis of intra-household decision-making insofar as the first step is to understand how decision-making happens at the household-level, then proceeding to the investigation of the characteristics of the individual decision makers participating in these decision-making processes.

4. Findings

First, we describe the nature of decision-making processes and status as observed at the household- and individual-level, followed by a discussion of the characteristics of household-level decision-making processes and of individual decision makers. In the majority of cases, principal decision-makers are resident household members. Only in a very small number of cases (~5%) are the individuals reported to be decision-makers, non-resident household members, i.e. individuals who does not usually reside in the household for at least four nights

a week. This is the case for both principal (96.9%) and joint decision-making (94.2%), where decisions on aggregate are made by resident household members. Insofar as decision-making regarding the schooling of children is most likely to be made by non-resident household members, particularly in extended families, the percentage of principal and joint decisions made by resident household members is lowest in this decision-making sphere, at 90.0% and 91.4% respectively. In the case of decisions on household finances in turn, where one would expect most decisions to be made by a resident member insofar as this is an ongoing, hands-on and daily task, decision-making by resident household members is highest, 96.6% and 95.2% for principal and joint decision-making, respectively. Joint decision-making by resident household members is relatively common place and occurs in almost half of households, ranging from 41% (household residence) to 45.3% (schooling).

[Table 1]

Decision-making power is relatively concentrated at the household-level, and more so in principal decision-making than in joint decision-making. In each of the decision-making spheres, approximately nine in ten households include only one principal decision maker, while between 80% and 90% of households include a single joint decision maker. Less than 1% of households include more than two decision makers. In aggregate terms, however, as may be expected, this is less so, both when (a) aggregating principal and joint decision makers within each decision-making spheres (see section "C" results) and (b) when adding together main and joint decision makers separately across each decision-making sphere (see section "A" and "B' results in the "Total" column). The former reflects the relatively high prevalence of joint decision-making in each decision-making sphere, while the latter is the result of different individuals being responsible for different decisions, be it at the principle or joint levels of decision-making. The high degree of centralisation of decision-making across decision-making spheres is also evident at the individual-level, in particular among principal decision makers and on aggregate. When restricting the comparison to the four "universal" domains, i.e. those for which data is available for all households, more than 80% of decision makers were the principal decision maker in all four decision-making domains, some three quarters when considering all five decision-making spheres. In the case of joint decision-making, the same person is responsible for all four or five of the decisions. As was the case at the household-level, decision-making power is distributed more widely among joint decision makers, the result of different individuals participating in joint decision-making.

[Table 2]

Approximately half of households include one single, resident principal decision-maker, while half are characterised by joint or collective decision-making. Cooperative bargaining is relatively more prominent than none-cooperative bargaining, indicating that members of approximately three (one) quarters of households characterised by joint or collective decision-making agree (disagree) on the distribution of bargaining power between principal and joint decision-makers.

[Tables 3-8]

Next, we investigate the characteristics of households classified into these categories of household decision-making processes. First, we discuss evidence on the extent to which certain more general household characteristics matter, followed by a discussion on the importance of household head characteristics.

Household characteristics:

As one would expect, collective decision-making is more likely in larger households. The average household size in unitary households is 2.7 and 4.7 in households characterised by joint decision-making. One would expect disagreement among household members on the identification of decision makers to be more likely in larger households. The evidence bears this out: the average household size under cooperative and non-cooperative bargaining are statistically significantly different, at 4.3 and 5.1, respectively. Collective decision-making is also significantly more likely in households including a relatively larger number of children and elderly household members than adults. Dependency ratios in household reporting joint decision-making is higher than in households where decisions are made by a single, principal decision maker (0.324 versus 0.248). Differences in dependency ratios in households where decision-making may be described as cooperative as opposed to none-cooperative are of the same nature across four of the five decision-making spheres. In each case, dependency ratios are higher under conditions of cooperative rather than none-cooperative bargaining. The exception is decisions on household residence, where the dependency ratio is lower in households exhibiting cooperative bargaining than in households exhibiting none-cooperative bargaining. On aggregate, however, the dependency ratio is exactly the same under cooperative and none-cooperative bargaining (0.324).

The results suggest that household structure or composition perhaps is the single most important factor in explaining differences in household decision-making processes. As expected, collective decision-making by principal and joint decision-makers are more likely in households comprising multiple generations (78.0%) than is unitary-type decision-making (49.5%). This is the case regardless of whether the household includes two (53.3% versus 36.8%) or more than two generations (24.6% versus 12.7%). Likewise, the presence in the household of generations removed from the household head (10.0% versus 7.3%) or of in-laws (6.2% versus 8.1%), although relatively low in overall terms compared to the presence of multiple relations in the household head's lineage, is associated positively and statistically significantly with collective decision-making as opposed to a unitary-type process of decision-making. In terms of cooperative and none-cooperative bargaining, the results, as one may expect insofar as conflict regarding decision-making is more likely in households comprised of multiple generations, shows that none-cooperative bargaining is more common in extended families than in single generation households.

The distribution of households characterised by alternative household decision-making strategies across the income distribution reveals that the prevalence of unitary-type decision-making by a single, principal decision maker is higher in the bottom end of the income

distribution. This is true for each decision-making sphere. In the top end of the distribution, however, unitary-type decision-making is more prevalent than collective decision-making in the decision-making spheres of investment, schooling, household formation and residence. The exception is decisions on household finances, where unitary decision-making is more common in the top quintile of the income distribution. Cooperative bargaining in turn is more common in the most affluent households than none-cooperative bargaining, but less common in poorer households, particularly in the case of decision-making regarding household formation and residence. There is no clear pattern in decision-making practices in the middle income groups across the different decision-making spheres.

Household head characteristics:

Age and gender of household heads differ substantially and statistically significantly across the various household decision-making categories. Households where collective, joint decision-making takes place are headed by older individuals (47.2 years) compared to households where the decision-making process can be described as unitary (42.5 years). Heads of households where there is an indication of the presence of none-cooperative bargaining are statistically significantly older than in households characterised by cooperative bargaining (48.8 versus 46.1 years). A similar trend is observed for gender: decision-making in female headed households more often are unitary (52.4%) and considerably less often collective (28.6%). None-cooperative bargaining is more likely in female headed households than cooperative bargaining (35.0% versus 23.9%). As expected, few households are headed by non-resident household members (~1.5%). Differences in the residential status of household heads across the different household decision-making types are negligible. In two instances, these differences are not statistically significant (investment and schooling), while in two other instances the differences are statistically significant at the 5% level only (household formation and total).

The marital status of household heads, another indicator of household structure, feature prominently in the classification of household decision-making processes as unitary or collective and as cooperative and none-cooperative bargaining. Decision-making by a single, principal decision maker, as one would expect, is significantly more likely in households where the household head is single (60.9% versus 21.4%) or non-cohabiting (i.e. not living with their partner/spouse) (27.1% versus 5.2%). Where the household head is living with their spouse or partner, the prevalence of some form of collective decision-making is significantly higher (73.3% versus 11.9%). The opposite is true for cooperative and none-cooperative decision-making. Here, cooperative bargaining is more likely than none-cooperative bargaining in households where the household head lives with their partner or spouse (77.5% versus 67.4%) than where the household head is single or, if not, does not live with their spouse/partner, where cooperative bargaining is less likely (21.4% versus 32.4%).

The prevalence of alternative decision-making processes in household headed by persons with different levels of education reveals a clear pattern across all five decision-making spheres. In households with less educated heads, collective and none-cooperative decision-making are relatively more common compared to unitary and cooperative decision-making,

respectively. The same is true in households with the most educated heads, but only for collective versus unitary-type decision-making. As one may expect, cooperative bargaining is significantly more common than none-cooperative bargaining in households with well educated heads.

Overall, therefore, patterns in the association of household head characteristics with different types of household decision-making processes, apart from the residential status of the household head, is similar across each and every of the five decision-making spheres.

[Tables 3-8]

Table 9 summarises the decision making status by decision making sphere for the 2008 adult cohort. A relatively large proportion of adults are decision-makers (63.7%). The percentage of adults who are decision makers, be it principal or joint decision makers, ranges from 55.0% (schooling) to 60.5% (finances). Among adult decision makers, principal decision making dominates joint decision making across the decision spheres, reflecting, as we pointed out in the above discussion, the fact that only half of households reported joint decision-making. In total, approximately half of the adults interviewed at baseline represent principal decision makers (51.6%). This proportion is higher than for any one of the decision-making spheres, which ranges from 41.1% (schooling) to 46.2% (finances), given that this requires someone to only be a principal decision maker in any one decision-making domain. Just more than one in ten adults is a joint decision maker (12.0%), fewer than in any one of the individual decision-making domains, given that some joint decision makers made one or more principal decisions. The prevalence of joint decision-making in the individual decision-making domains ranges from 13.8% (schooling) to 14.7% (investment). The proportion among decision makers who are principal decision makers (81%) accordingly exceeds the proportion that is joint decision-makers (19%). Among decision makers, the percentage of principal decision makers ranges from 74.7% (schooling) to 76.3% (finances), whereas that of joint decision-making ranges from 23.6% (finances) to 25.2% (schooling decision sphere), 19.0% on aggregate. A third of respondents in the survey does not make a decision on any of the five issues and can be classified as none-decision makers. The distribution of decision-making status within any one decision-making domain differs statistically significantly from the distribution in any other domain.

[Table 9]

Hence, not all adults are decision makers, nor are all decision-makers principal decision makers. The next step therefore is to investigate the characteristics of decision makers in general and of principal and joint decision makers in particular. Tables 10 to 15 report the results of these bivariate analyses for each of the five decision-making domains, drawing a distinction between financial and economic, socio-cultural and other characteristics of decision makers. Table 15 portrait aggregated results, calculated across all five decision-making domains. Below we discuss these results, briefly summarising findings common across different decision makers and, where relevant, evidence of distinct differences between decision-making spheres.

[Tables 10-15]

Financial and economic factors:

For all the decision spheres, there is a huge difference between the household income share of decision makers and none-decision makers. The average income share for decision makers is 41.6% and in terms of decision-making domains ranges from 48.3% (schooling) to 51.3% (household residence), whereas the household income share of none-decision makers is 13.0% and ranges from 14.2% (finances) to 14.7% (investment). Hypotheses tests show that differences in the income share of decision makers and none-decision makers are statistically significant in all five decision-making spheres. Furthermore, principal decision makers as expected have statistically significantly higher shares in household income (average 55.4%; range 52.4% schooling to 57.7% finances) compared to joint decision makers (average 25.2%; range 28.5% finances to 36.4% schooling).

We find similar trends for alternative measures of decision makers' financial and economic bargaining power, including employment status. A statistically significantly greater percentage of decision makers are employed (average 53.5%; range 51.8% schooling to 54.5% investment) compared to none-decision makers, among whom employment levels are much lower (average 21.2%; range 22.4% schooling to 23.7% household residence). This is the case in each of the five decision-making domains. Similarly, levels of unemployment are statistically significantly higher among principal (average 56.7% ; range 54.4% schooling to 64.0% investment) than among joint decision-makers (average 39.5%; range 42.6% household residence to 44.5% finances), but by a smaller magnitude compared to household income shares. Differentials in home ownership across decision-making status are pronounced and statistically significant, 48.6% among decision makers (49.5% finances versus 52.3% schooling); 54.4% (55.1% finances versus 58.4% schooling); 24.2% (29.4% investment versus 34.1% schooling) among principal and joint decision makers respectively; 2.0% only among none-decision makers (2.8% household formation versus 4.8% schooling). Figures for access to a bank account are as follows: decision makers 48.3% (44.6% schooling versus 49.2% household residence), principal decision makers 50.0% (45.2% schooling versus 50.2% investment), joint decision makers 40.9% (42.6% schooling versus 46.2% household residence), and none-decision makers 21.6% (22% schooling versus to 23.7% finances). As for employment status, differences between joint and principal decision makers, although statistically significant, is less pronounced than for other proxies of financial and economic bargaining power. The same trend is observed for access to savings and credit, although aggregate levels of access are considerably lower than for access to a bank account. In all cases, access differs statistically significantly across decision-making status, both when comparing decision makers to none-decision makers and when comparing principal, joint and none-decision makers. The exception is differences in access to credit and savings among principal and joint decision makers, which, though statistically significant in overall terms, is either insignificant or statistically significant at 5% only in each of the five decision-making domains.

The results for differences in the level of education of decision makers, principal and joint decision makers, and none-decision makers, though statistically significant in all instances, are less clear-cut than for the above measures of financial and economic bargaining power. Those with no schooling (12.1% versus 3.1%) or primary education (21.5% versus 14.8%) only and with tertiary education (16.3% versus 6.6%) are significantly more likely to be decision makers than none-decision makers, while a much larger proportion, more than half of none-decision makers, have some secondary education (31.6% versus 55.4%). To some extent the same is true for differences in education among principal and joint decision makers. The former finding is not surprising when one considers that South Africa has a well-developed social assistance programme. The poor, who generally speaking are poorly educated, thus qualify for social welfare grants, which enhance their financial and economic bargaining power, which in turn, as evidenced in the results for household income shares, stands to enhance their decision making power. Those with tertiary education in turn are the most likely to have employment, with labour market earnings in this case enhancing their decision-making status relative to those with no employment and/or low earnings.

To summarize then, apart from education, there is strong evidence of a positive gradient in financial and economic bargaining power among decision makers, ranging from highest among principal decision makers, lower in joint decision makers and lowest among none-decision makers.

Socio-cultural factors:

Gender differences in the distribution of decision-making status throughout are statistically significant. In each and every decision-making sphere, a greater proportion of females are decision makers compared to men (58.4% versus 52.3%), who more often are none-decision makers, which is not surprising if one takes into account the fact that day-to-day decisions related to the running of the household often are the responsibility of the spouse or partner of the male head, while in other instances, households are headed by unmarried women or by women whose husbands or partners do not live in the household. As expected, the schooling decision-making sphere has the greatest percentage of female decision makers at 65.5%, whereas female participation in decision-making at 57% is lowest in the household residence decision-making sphere. Interestingly, but perhaps unsurprisingly, given the dominance in South Africa of patriarchal society, females dominate joint decision-making compared to principal decision-making (76.5% versus 54.4%).

Household headship is an integral and dominant attribute in decision making. On average, 63.0% (60.6% schooling to 66.9% household residence) of decision makers are household heads, with 75.5% (75.4% schooling to 85.0% household formation/residence) of household heads being principal decision makers compared to 9.8% only (9.6% household formation to 18.0% finances) of joint decision makers. A mere 1.9% (2.3% household formation to 5.3% finances and schooling) of none-decision makers is household heads. There is a clear indication therefore that being a household head, which confers a certain prominence to persons in regards to their social standing in the family, is positively and statistically significantly associated with decision-making status. Evidence on the association between

family status and decision-making status mirror the findings on headship. Tables 10-15 shows that household heads or their spouse/partner are statistically significantly more likely to be decision makers (88.0%; 88.3% schooling to 91.9% household formation) rather than non-decision makers (6.4%; 9.9% household formation to 11.1% investment), and principal (92.4%; 91.9% schooling to 95.3%) rather than joint decision makers (68.8%; 73.2% finances to 78.5% household residence). The comparison of family status adds still more to the story of the role of household composition or structure in explaining differences in decision-making status. Adults related to the household head in other ways, be it along familial or non-familial lines (children, other family, none-family), although being significantly less likely to be decision-makers (11.8% versus 93.5%), are significantly more likely to be joint decision makers than principal decision makers (31.1% versus 7.4%). The majority of none-decision makers, more than two thirds (70.9%), as expected, are children. There is evidence therefore that decision-making, and most likely joint decision-making, given findings on the characteristics of household decision-making presented above, sometimes go beyond decision-making by couples to include children of household heads and their spouse/partner as well as members of the extended, multi-generational family, and, in a small proportion of cases, even none-family.

Insofar as household heads and their spouse/partner generally are older than other household members, the average age of decision makers (42.7 years) are significantly higher than for none-decision makers (24.1 years). Principal decision makers (43.7 years) are statistically significantly older than joint decision makers (38.6 years). Age in other words is associated positively with decision-making power. In terms of marital status, decision makers are significantly more likely to be married than non-decision makers (55.3% versus 8.7%). Among decision makers, however, those who are married are significantly more likely to be joint rather than principal decision makers (69.4% versus 52.1%).

Other factors:

In each of the decision-making spheres the prevalence of decision-making, in general, and of principal and joint decision-making, is statistically significantly and positively associated with household welfare. Insofar as decision makers wield greater financial and economic bargaining power, as shown above, it is not surprising that a relatively larger proportion of decision makers (none-decision makers) live in more affluent (poorer) households. Differences between principal and joint decision makers, though, despite being statistically significant in aggregate terms, are statistically significant at the 5% level only in four of the five decision-making domains and not statistically significant in the fifth. Racial differences in the composition of decision makers and none-decision makers also reflect these economic realities, with decision makers more likely to be White than African. Differences in decision-making among the Coloured and Asian populations are negligible.

5. Limitations

The study has various limitations. Perhaps most important is the fact that the classification of intra-household decision-making as unitary, collective (bargaining) and cooperative and

none-cooperative bargaining at best is a relatively crude and definitely quite limited approximation of the detailed and nuanced theory underlying each group of intra-household decision-making models. (In fact, we are unsure as to whether we should even use such terminology in this analysis.) For example, the presence of multiple principal or joint decision makers may simply reflect the practical reality of different household members making decisions as to the allocation of different members' income or regarding the schooling of different children, particularly in the context of extended, multi-generational families. In fact, the classification of alternative models in the Economics literature furthermore depends very much on the nature of the outcomes or impacts of intra-household decision-making rather than the underlying behavioural dynamics. Hence, although useful descriptively, one cannot draw any conclusions regarding the extent to which any of these decision-making practices are beneficial or detrimental in terms of their impact on the outcomes of household decision-making based on the evidence presented in this paper.

The questions on intra-household decision-making included in the National Income Dynamic Study's (NIDS), although, as mentioned elsewhere, relatively unique and hence extremely useful in research of this nature, have their limitations. First, the question does not allow for the identification of more than two secondary or joint decision makers, which is likely to introduce under-reporting of the true extent of collective decision-making, including under-reporting decision-making involving non-resident household members. The "economistic" definition of the household adopted in the National Income Dynamics Study (NIDS), although appropriate given the purpose of the survey, is also likely to result in an incomplete picture of the true nature of collective decision-making. Second, asking only who "makes" the eventual decision fails to elucidate who else may influence the decision-making process and in what manner. Third, being designated the "main" and "second" decision maker represents a poor measure of the relative degree of differences in decision-making power. Fourth, there is no way of knowing whether the joint decision-making process is characterised by inter-personal conflict or whether in fact decision-makers cooperate in the true sense of the word. Next, the question on schooling decisions refers only to decisions regarding resident children. The reality of extended families means that resident household members may participate in decision-making in regard to schooling of related, non-resident children and that decisions on the schooling of resident children in turn may lie solely with none-household members. Lastly, in line with the main purpose of NIDS, questions are only asked regarding select decision-making domains, in particular economic ones or ones with particular relevance to the study of poverty and inequality. The aggregation moreover of outcomes across these few decision-making spheres represents a poor, incomplete picture of the broader dynamics of decision-making.

Yet, the National Income Dynamics Study (NIDS) does not aim to investigate intra-household decision-making in its entirety and hence does not collect data on various related issues of importance to a more comprehensive understanding of household decision-making, as do surveys developed for this explicit purpose. Examples include collecting information on if and how financial resources are pooled, controlled and managed, not to mention more sociological factors such as perceptions regarding gender roles and norms (Marshall &

Woolley, 1993; Kantor, 2003; Bonke & Uldall-Poulsen, 2007; Phipps & Wooley, 2008; Hamplova & Le Bourdais, 2009). Collecting data on decision-making roles independent of other related information, for example as to which particular children the schooling decision applies or whose resources are used to finances day-to-day household expenditure and investments in durable goods, makes it impossible to introduce such nuance into the empirical analysis conducted as part of this paper. Together, these shortcomings emphasise the necessity of conducting further primary research, both of a qualitative and quantitative nature, and both of an experimental and non-experimental nature, to better understand the complex dynamics of intra-household decision-making. Nevertheless, one may argue that the added value of this type of survey data on household decision-making in terms of its relatively unique nature is not completely outweighed by such myriad shortcomings and are useful for presenting a fuller account of intra-household decision-making than econometric analyses of household survey data (Doss, 1996; Lancaster et al., 2006; Maitra & Ray, 2006).

6. Conclusion

The paper presents a descriptive account of intra-household decision-making in various decision-making spheres using data collected in the National Income Dynamics Study (NIDS). The evidence shows that decision makers in almost all cases are resident household members. Decision-making power for the most part settles in the same individuals and are centralised within households, in particular among principal decision makers. Joint or collective decision-making is relatively common and for the most part can be described as cooperative bargaining, with decision-makers and other household members agreeing who in the household fulfil principal and joint decision-making roles.

Household structure and composition is the single most important factor in explaining differences in household decision-making processes. Collective decision-making is more prevalent compared to unitary-type decision-making in larger, multi-generational households comprising a greater proportion of children and elderly relative to adults, in more affluent households, and in households headed by older, cohabiting male household members. The same applies to cooperative bargaining, with the exception of household size and the dependency ratio, where none-cooperative decision-making is more prevalent in smaller households and households with a smaller proportion of children and elderly members. There is strong evidence at the individual-level of a clear gradient in financial and economic bargaining power among decision makers. None-decision makers have little financial and economic bargaining power, while principal decision makers have substantial financial and economic bargaining power and joint decision makers less, but more than none-decision makers, particularly in regards to the decision makers' share in household income, employment status and home ownership. Socio-cultural factors also play an important role in the designation of adult household members as decision makers and as principal rather than joint decision makers. Decision makers more often than not are older, female, married and designated the household head. The same is true for joint decision makers regarding age, gender and marital status, but in terms of relation to the household head, relations other than headship or children of the household head, whether family or non-family, better describe joint decision makers. Striking as well is the fact that the extent to which different financial

and economic and socio-cultural factors are associated with decision-making status does not differ much across individual decision-making domains. The broad patterns almost always are similar as a result of the high degree of concentration of decision-making power within the same individuals.

The findings presented here provide a useful introduction to an understanding of the nature of decision-making in South African households. Yet, more work remains to advance our understanding of intra-household decision-making. First, the logical next step is to conduct multivariate regression analysis to assess the predictors or determinants of particular household-level decision-making types or processes as well as of individual-level decision making status or power. Secondly, such descriptive and regression analysis needs to be expanded, in particular to investigate inter-relationships between financial and economic as opposed to socio-demographic and socio-cultural characteristics associated with household-level decision-making processes and the decision-making role of individual household members. Equally or perhaps most important, is to recognize that the findings described here and the further analysis of this data described above, is only a precursor, albeit it an important one, to an econometric investigation into the impact of intra-household decision-making processes and of the decision-making role and characteristics of individual decision makers on the outcomes of intra-household decision-making of importance to the development challenges facing South Africa, including, amongst others, household savings and investments in family public goods. The longitudinal nature of the National Income Dynamics Study (NIDS) moreover allows for an investigation into the inter-temporal dynamics of intra-household decision-making and its impact on a variety of economic and non-economic outcomes.

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Table 1: Household-level decision making characteristics, by decision making sphere

	1. Finances	2. Investment	3. Schooling	4. Household formation	5. Household residence	Total
A. Principal decision-making						
Resident (%)	96.6	95.0	95.0	95.7	95.7	96.9
Number of decision makers						
1	89.8	90.7	87.5	91.1	91.5	78.0
2	9.7	8.8	11.5	8.5	8.1	20.3
> 2	0.3	0.4	0.8	0.3	0.3	1.6
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
B. Joint decision-making						
Total (%)	41.9	42.1	45.3	41.3	41.0	47.0
Resident (%)	95.2	95.1	91.4	95.0	94.8	94.2
Number of decision makers						
1	86.4	86.2	85.4	87.1	87.5	69.9
2	12.8	13.2	13.9	12.4	11.9	28.0
> 2	0.7	0.4	0.6	0.3	0.5	2.0
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
C. Total decision-making						
Resident (%)	98.0	96.7	96.7	97.3	97.1	98.2
Number of decision makers						
1	57.9	57.5	53.2	58.4	58.8	52.2
2	40.2	40.4	44.3	39.8	39.5	43.9
> 2	1.9	1.9	2.3	1.6	1.6	3.7
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
D. Decision-making type						
Unitary	55.0	54.3	45.2	55.3	55.6	47.5
Collective bargaining	45.0	45.7	54.7	44.6	44.3	52.5
Cooperative bargaining	32.1	34.2	34.3	33.4	33.3	30.5
None-cooperative bargaining	12.8	11.4	20.4	11.1	11.0	21.9
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

Note: In "B", the row "Total" shows the percentage of households reporting a second, joint decision maker(s).

Table 2: Number of decisions, per decision maker (%)

	A. Four decision making spheres (excluding schooling)			B. Five decision making spheres (including schooling)		
Number of decisions	**Principal**	**Joint**	**Total**	**Principal**	**Joint**	**Total**
1	7.3	15.6	3.4	8.2	14.7	2.4
2	5.1	11.3	4.2	5.3	8.8	1.3
3	7.1	12.7	8.0	4.9	8.5	3.6
4	80.3	60.3	84.2	7.9	11.8	5.6
5	n/a	n/a	n/a	73.5	56.0	86.9
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

Note: Results are weighted. Results are for resident decision makers. Figures in "B" are calculated for individuals in the sub-sample of households with school-age children. Numbers may not add up to 100% due to rounding.

Table 3: Characteristics of household decision-making – finances

	Unitary	Collective	[1]	Cooperative Bargaining	None-cooperative Bargaining	[2]	Total
A. Household characteristics:							
Household size	2.9	4.7	**	4.4	5.4	**	3.7
Dependency ratio	0.260	0.322	**	0.326	0.310	**	0.288
Number of generations							
1	46.2	22.4	**	23.9	18.6	**	35.5
2	39.6	52.5		53.2	50.9		45.4
3+	14.1	25.0		22.8	30.3		19.0
Total	100.0	100.0		100.0	100.0		100.0
Multiple generations	53.7	77.5	**	76.0	81.3	**	64.4
Removed generations	7.6	9.9	**	8.5	13.4	**	8.7
In-laws	2.3	6.3	**	5.0	9.7	**	4.1
Household income quintile							
1	14.4	12.7	**	12.4	13.6	**	13.6
2	13.8	15.2		15.4	14.7		14.4
3	18.2	17.8		18.3	16.5		18.0
4	23.2	25.6		24.2	29.0		24.3
5	30.2	28.5		29.5	25.9		29.4
Total	100.0	100.0		100.0	100.0		100.0
B. Household head characteristics:							
Age (years)	43.2	47.2	**	46.8	48.0	**	45.0
Female	51.0	26.4	**	24.5	31.3	**	39.9
Resident	98.4	98.6	**	99.6	96.1	**	98.5
Marital status							
Single	57.1	19.7	**	18.9	21.8	**	40.3
Not cohabiting	24.7	4.5		3.8	6.3		15.6
Cohabiting	18.1	75.6		77.1	71.8		44.0
Total	100.0	100.0		100.0	100.0		100.0
Education							
None	12.7	14.6	*	14.9	13.7	**	13.5
Primary	23.2	23.4		22.6	25.7		23.3
Some secondary	32.4	28.4		27.0	31.8		30.6
Grade 12	20.1	20.7		21.7	18.1		20.4
Tertiary	11.3	12.7		13.6	10.5		11.9
Total	100.0	100.0		100.0	100.0		100.0

Notes: Results are weighted. Hypothesis test [1] tests for statistically significant differences between the unitary and collective decision-making types. Hypothesis test [2] compares outcomes across all three categories, namely unitary, cooperative bargaining and none-cooperative bargaining. ** $P < 0.01$; * $p < 0.05$

Table 4: Characteristics of household decision-making – investment

	Unitary	Collective	[1]	Cooperative Bargaining	None-cooperative Bargaining	[2]	Total
A. Household characteristics:							
Household size	2.9	4.7	**	4.4	5.5	**	3.7
Dependency ratio	0.254	0.327	**	0.328	0.324	**	0.287
Number of generations							
1	46.9	22.0	**	22.9	19.3	**	35.5
2	38.4	53.8	**	55.3	49.5	**	45.4
3+	14.6	24.0	**	21.7	31.0	**	18.9
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
Multiple generations	53.0	77.9	**	77.0	80.6	**	64.4
Removed generations	8.0	9.6	*	8.6	12.6	**	8.7
In-laws	2.4	6.1	**	5.0	9.4	**	4.1
Household income quintile							
1	14.9	12.0	**	11.4	13.7	**	13.6
2	13.8	14.6		14.0	16.3		14.2
3	18.7	17.3		17.6	16.2		18.0
4	23.6	25.4		23.5	30.9		24.4
5	28.8	30.6		33.3	22.7		29.6
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
B. Household head characteristics:							
Age (years)	43.2	47.2	**	46.7	48.6	**	45.0
Female	51.6	25.9	**	22.7	35.4	**	39.8
Resident	98.9	98.7		99.7	95.6	**	98.8
Marital status							
Single	58.8	18.4	**	16.6	23.9	**	40.4
Not cohabiting	24.9	4.2		3.5	6.1		15.4
Cohabiting	16.1	77.3		79.7	69.9		44.1
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
Education							
None	13.0	14.0	**	14.1	13.8	**	13.4
Primary	23.6	22.9		21.4	27.2		23.3
Some secondary	32.9	27.7		26.4	31.4		30.5
Grade 12	20.3	20.7		22.1	16.4		20.5
Tertiary	10.1	14.5		15.7	11.0		12.1
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*

Notes: Results are weighted. Hypothesis test [1] tests for statistically significant differences between the unitary and collective decision-making types. Hypothesis test [2] compares outcomes across all three categories, namely unitary, cooperative bargaining and none-cooperative bargaining. ** $P < 0.01$; * $p < 0.05$

Table 5: Characteristics of household decision-making – schooling

	Unitary	Collective	[1]	Cooperative Bargaining	None-cooperative Bargaining	[2]	Total
A. Household characteristics:							
Household size	3.7	5.2	**	4.9	5.5	**	4.5
Dependency ratio	0.335	0.356	**	0.365	0.342	**	0.346
Number of generations							
1	27.4	12.7	**	12.3	13.3	**	19.3
2	51.5	58.2		61.9	52.0		55.2
3+	21.0	29.0		25.7	34.5		25.4
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
Multiple generations	72.5	87.3	**	87.6	86.6	**	80.6
Removed generations	10.4	11.0		9.7	13.1	*	10.7
In-laws	2.9	6.7	**	5.0	9.5	**	5.0
Household income quintile							
1	19.6	14.0	**	13.6	14.7	**	16.5
2	17.1	17.8		18.0	17.6		17.5
3	22.8	18.6		17.9	19.8		20.5
4	20.6	24.3		22.6	27.3		22.7
5	19.6	25.0		27.7	20.4		22.6
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
B. Household head characteristics:							
Age (years)	43.6	47.5	**	46.4	49.1	**	45.7
Female	63.7	29.6	**	24.2	38.6	**	45.0
Resident	98.4	98.3		99.7	95.9	**	98.3
Marital status							
Single	57.1	21.8	**	17.3	29.5	**	37.8
Not cohabiting	23.9	4.5		2.6	7.7		13.2
Cohabiting	18.9	73.6		80.1	62.7		48.8
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
Education							
None	13.9	16.2	**	15.7	17.0	**	15.2
Primary	25.8	25.3		23.6	28.2		25.5
Some secondary	32.4	27.9		26.9	29.7		29.9
Grade 12	19.1	17.3		18.2	15.7		18.1
Tertiary	8.6	13.1		15.4	9.2		11.0
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*

Notes: Results are weighted. Hypothesis test [1] tests for statistically significant differences between the unitary and collective decision-making types. Hypothesis test [2] compares outcomes across all three categories, namely unitary, cooperative bargaining and none-cooperative bargaining. ** $P < 0.01$; * $p < 0.05$

Table 6: Characteristics of household decision-making – household formation

	Unitary	Collective		Cooperative Bargaining	None-cooperative Bargaining		Total
A. Household characteristics:							
Household size	2.9	4.7	**	4.4	5.5	**	3.7
Dependency ratio	0.257	0.326	**	0.327	0.323	**	0.288
Number of generations							
1	46.7	22.0	**	23.1	19.1	**	35.7
2	37.8	54.6		56.0	50.7		45.3
3+	15.4	23.2		20.9	30.1		18.8
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
Multiple generations	53.2	77.9	**	76.9	80.9	**	64.2
Removed generations	8.0	9.5	**	8.5	12.6	**	8.6
In-laws	2.2	6.4	**	5.1	10.2	**	4.1
Household income quintile							
1	15.1	11.7	**	10.8	14.5	**	13.6
2	14.2	14.5		13.7	17.0		14.3
3	19.1	16.6		16.9	16.0		18.0
4	23.5	25.0		23.8	28.6		24.2
5	27.8	31.9		34.6	23.8		29.6
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
B. Household head characteristics:							
Age (years)	43.2	47.3	**	46.7	49.0	**	45.0
Female	52.4	24.4	**	21.6	32.8	**	39.9
Resident	99.1	98.6	*	99.8	95.3	**	98.9
Marital status							
Single	58.7	17.6	**	16.4	21.2	**	40.3
Not cohabiting	25.2	3.8		2.9	6.7		15.7
Cohabiting	16.0	78.4		80.5	72.0		43.9
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
Education							
None	13.3	13.8	**	13.3	15.2	**	13.5
Primary	24.2	22.1		20.8	26.0		23.3
Some secondary	32.4	28.5		27.5	31.4		30.7
Grade 12	20.0	20.9		22.0	17.8		20.4
Tertiary	9.9	14.5		16.2	9.3		11.9
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*

Notes: Results are weighted. Hypothesis test [1] tests for statistically significant differences between the unitary and collective decision-making types. Hypothesis test [2] compares outcomes across all three categories, namely unitary, cooperative bargaining and none-cooperative bargaining. ** $P < 0.01$; * $p < 0.05$

Table 7: Characteristics of household decision-making – household residence

	Unitary	Collective		Cooperative Bargaining	None-cooperative Bargaining		Total
A. Household characteristics:							
Household size	3.0	4.7	**	4.4	5.4	**	3.7
Dependency ratio	0.256	0.326	**	0.323	0.337	**	0.287
Number of generations							
1	46.4	22.2	**	22.7	20.5	**	35.7
2	37.8	54.7		56.4	49.7		45.3
3+	15.6	23.0		20.7	29.7		18.9
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
Multiple generations	53.5	77.8	**	77.2	79.5	**	64.3
Removed generations	7.9	9.7	**	8.9	12.1	**	8.7
In-laws	2.2	6.4	**	5.0	10.6	**	4.1
Household income quintile							
1	15.1	11.6	**	11.0	13.1	**	13.5
2	13.9	14.6		13.8	17.0		14.2
3	19.1	16.6		16.9	15.6		18.0
4	23.8	25.1		23.9	28.5		24.3
5	27.9	31.9		34.1	25.5		29.7
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
B. Household head characteristics:							
Age (years)	43.2	47.2	**	46.7	48.7	**	45.0
Female	52.0	24.7	**	22.0	33.0	**	39.9
Resident	99.1	98.5	**	99.7	94.8	**	98.9
Marital status							
Single	58.6	17.3	**	16.0	21.0	**	40.2
Not cohabiting	25.0	4.1		2.9	7.6		15.7
Cohabiting	16.4	78.5		80.9	71.3		44.0
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
Education							
None	13.4	13.6	**	13.5	14.0	**	13.5
Primary	24.3	21.8		20.3	26.0		23.2
Some secondary	32.5	28.2		27.5	30.5		30.6
Grade 12	19.5	21.8		23.1	17.7		20.5
Tertiary	10.2	14.4		15.3	11.6		12.0
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*

Notes: Results are weighted. Hypothesis test [1] tests for statistically significant differences between the unitary and collective decision-making types. Hypothesis test [2] compares outcomes across all three categories, namely unitary, cooperative bargaining and none-cooperative bargaining. ** $P < 0.01$; * $p < 0.05$

Table 8: Characteristics of household decision-making – total

	Unitary	Collective		Cooperative Bargaining	None-cooperative Bargaining		Total
A. Household characteristics:							
Household size	2.7	4.7	**	4.3	5.1	**	3.7
Dependency ratio	0.248	0.324	**	0.324	0.324	**	0.288
Number of generations							
1	50.4	22.0	**	24.4	18.6	**	35.4
2	36.8	53.3		54.7	51.4		45.5
3+	12.7	24.6		20.8	30.0		19.0
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
Multiple generations	49.5	78.0	**	75.5	81.4	**	64.5
Removed generations	7.3	10.0	**	8.6	12.1	**	8.7
In-laws	1.8	6.2	**	4.4	8.7	**	4.1
Household income quintile							
1	14.9	12.5	**	12.4	12.7	**	13.6
2	13.9	15.0		14.8	15.2		14.4
3	17.7	18.3		18.6	17.9		18.0
4	23.8	24.7		22.6	27.6		24.3
5	29.5	29.3		31.4	26.4		29.4
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
B. Household head characteristics:							
Age (years)	42.5	47.2	**	46.1	48.8	**	45.0
Female	52.4	28.6	**	23.9	35.0	**	39.9
Resident	98.7	98.3	*	99.6	96.4	**	98.5
Marital status							
Single	60.9	21.4	**	19.1	24.7	**	40.2
Not cohabiting	27.1	5.2		3.3	7.7		15.6
Cohabiting	11.9	73.3		77.5	67.4		44.1
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*
Education							
None	12.7	14.3	**	14.1	14.6	**	13.5
Primary	23.3	23.5		21.4	26.4		23.4
Some secondary	32.8	28.4		27.9	29.2		30.5
Grade 12	20.9	19.9		21.8	17.2		20.4
Tertiary	10.1	13.6		14.5	12.4		11.9
Total	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*

Note: Results are weighted. Decision-making status refers to being a decision-maker in any decision-making sphere, either as a principal or joint decision maker. Hypothesis [1] tests for statistically significant differences between the unitary and collective decision-making types. Hypothesis [2] compares outcomes across all three categories, namely unitary, cooperative bargaining and none-cooperative bargaining. ** $P < 0.01$; * $p < 0.05$

Table 9: Decision making status, by decision making sphere (%)

Decision making sphere	A. Decision making status					B. Principal or joint decision-maker		
	Principal	**Joint**	**Any**	**None**	**Total**	**Principal**	**Joint**	**Total**
1. Finances	46.2	14.3	60.5	39.4	100.0	76.3	23.6	100.0
2. Investment	44.8	14.7	59.5	40.4	100.0	75.2	24.7	100.0
3. Schooling	41.1	13.8	55.0	44.9	100.0	74.7	25.2	100.0
4. Household formation	45.0	14.6	59.6	40.3	100.0	75.5	24.5	100.0
5. Household residence	44.8	14.4	59.3	40.6	100.0	75.5	24.4	100.0
Total	*51.6*	*12.1*	*63.7*	*36.2*	*100.0*	*81.0*	*19.0*	*100.0*

Note: Results are weighted. "Any" refers to being either a principal or joint decision-maker. Numbers may not add up to 100 due to rounding.

Table 10: Characteristics of decision makers – finances

Characteristics		Decision-making Status: Principal	Joint	[1]	None	[2]	Any	None	[3]	Average
A. Financial and economic factors:										
Income share (%)		57.7	28.5	**	14.2	**	50.8	14.2	**	36.3
Employed		56.7	44.5	**	23.1	**	53.9	23.1	**	42.7
Home owner		55.1	31.3	**	4.5	**	49.5	4.5	**	31.7
Bank account		49.4	44.8	**	23.7	**	48.4	23.7	**	39.4
Credit access		22.2	18.7	*	6.8	**	21.4	6.8	**	16.1
Savings access		7.7	5.7	*	1.7	**	7.2	1.7	**	5.2
Education	No schooling	12.8	10.4	**	3.6	**	12.2	3.6	**	8.9
	Primary	22.8	18.9		14.8		21.9	14.8		19.1
	Some secondary	30.4	34.2		53.9		31.3	53.9		40.2
	Grade 12	17.4	21.3		19.7		18.3	19.7		18.8
	Tertiary	16.4	15.0		7.7		16.1	7.7		12.8
B. Socio-cultural factors:										
Gender	Male	43.9	31.0	**	48.0	**	41.0	48.0	**	43.5
	Female	56.0	68.9		51.9		58.9	51.9		56.4
Headship	Head	78.2	18.0	**	5.3	**	64.0	5.3	**	40.8
	Non-head	21.7	81.9		94.6		35.9	94.6		59.1
Marital status	Single	50.3	25.6	**	87.5	**	44.6	87.5	**	60.2
	Married	49.6	74.3		12.4		55.3	12.4		39.7
	Head/spouse	94.4	73.2	**	10.7	**	89.4	10.7	**	58.5
Family status	Child	2.5	13.4		67.4		5.1	67.4		29.6
	Other family	2.5	10.5		19.3		4.4	19.3		10.3
	Non-family	0.3	2.7		2.4		0.9	2.4		1.5
Age (years)		43.7	39.8	**	25.4	**	42.8	25.4	**	35.9
C. Other factors:										
Race	African	75.3	74.1	*	82.2	**	75.0	82.2	**	77.8
	Coloured	8.7	9.6		9.0		8.9	9.0		9.0
	Asian	2.8	2.0		2.6		2.6	2.6		2.6
	White	13.0	14.1		6.1		13.2	6.1		10.4
Per capita household income quintile	Q 1	13.6	14.8	*	21.4	**	13.9	21.4	**	16.8
	Q 2	14.5	15.9		21.9		14.9	21.9		17.6
	Q 3	17.9	18.4		22.4		18.0	22.4		19.7
	Q 4	24.9	24.1		19.6		24.7	19.6		22.7
	Q 5	28.9	26.5		14.5		28.3	14.5		22.9

Note: Results are weighted. Decision-making status refers to being a decision-maker in any decision-making sphere, either as a principal or joint decision maker. Hypothesis [1] tests for statistically significant differences between the principal versus joint decision makers. Hypothesis [2] compares outcomes across all three categories, namely principal, joint and none-decision making status. Hypothesis [3] tests for statistically significant differences between decision maker and non-decision makers. ** $P < 0.01$; * $p < 0.05$

Table 11: Characteristics of decision makers – investment

Characteristics		Decision-making Status								
		Principal	Joint	[1]	None	[2]	Any	None	[3]	Average
A. Financial and economic factors:										
Income share (%)		57.3	32.1	**	14.7	**	51.1	14.7	**	36.3
Employed		64.0	43.8	**	23.3	**	54.5	23.3	**	42.7
Home owner		57.5	29.4	**	3.9	**	50.6	3.9	**	31.7
Bank account		50.2	45.9	**	23.3	**	49.1	23.3	**	39.4
Credit access		22.4	20.8		6.4	**	22.0	6.4	**	16.1
Savings access		8.3	5.8	*	1.1	**	7.7	1.1	**	5.2
Education	No schooling	12.9	10.5	**	15.0	**	12.3	3.7	**	8.9
	Primary	23.0	18.1		15.0		21.8	15.0		19.1
	Some secondary	30.1	32.7		54.2		30.8	54.2		40.2
	Grade 12	17.1	21.5		19.9		18.2	19.9		18.8
	Tertiary	16.7	16.9		6.9		16.7	6.9		12.8
B. Socio-cultural factors:										
Gender	Male	49.2	21.2	**	45.2	**	42.5	45.2	**	43.5
	Female	50.7	78.8		54.7		57.4	54.7		56.4
Headship	Head	83.2	12.9	**	4.1	**	65.8	4.1	**	40.8
	Non-head	16.7	87.0		95.8		34.2	95.8		59.1
Marital status	Single	51.1	22.0	**	86.9	**	44.1	86.9	**	60.2
	Married	48.8	78.8		13.0		55.8	13.0		39.7
	Head/spouse	94.6	77.5	**	11.1	**	90.4	11.1	**	58.1
Family status	Child	2.5	11.2		66.6		4.6	66.6		29.6
	Other family	2.5	9.0		19.4		4.1	19.4		10.3
	Non-family	0.3	2.1		2.6		0.7	2.6		1.5
Age (years)		44.1	40.1	**	25.3	**	43.1	25.3	**	35.9
C. Other factors:										
Race	African	75.6	68.8	**	83.8	**	73.8	83.8	**	77.8
	Coloured	8.6	11.1		8.6		9.2	8.6		9.0
	Asian	2.7	2.7		2.4		2.7	2.4		2.6
	White	13.0	17.3		5.0		14.1	5.0		10.4
Per capita household income quintile	Q 1	13.6	13.8		21.5	**	13.7	21.5	**	16.8
	Q 2	14.5	14.9		22.1		14.6	22.1		17.6
	Q 3	17.7	17.5		22.8		17.6	22.8		19.7
	Q 4	25.0	23.9		19.7		24.7	19.7		22.7
	Q 5	28.9	29.8		13.7		29.1	13.7		22.9

Note: Results are weighted. Decision-making status refers to being a decision-maker in any decision-making sphere, either as a principal or joint decision maker. Hypothesis [1] tests for statistically significant differences between the principal versus joint decision makers. Hypothesis [2] compares outcomes across all three categories, namely principal, joint and none-decision making status. Hypothesis [3] tests for statistically significant differences between decision maker and non-decision makers. ** $P < 0.01$; * $p < 0.05$

Table 12: Characteristics of decision makers – schooling

Characteristics		Decision-making Status: Principal	Joint	[1]	None	[2]	Any	None	[3]	Average
A. Financial and economic factors:										
Income share (%)		52.4	36.4	**	14.4	**	48.3	14.4	**	33.1
Employed		54.4	43.8	**	22.4	**	51.8	22.4	**	39.4
Home owner		58.4	34.1	**	4.8	**	52.3	4.8	**	30.9
Bank account		45.2	42.6	**	22.0	**	44.6	22.0	**	35.1
Credit access		20.4	18.6		5.9	**	19.9	5.9	**	14.0
Savings access		6.3	5.2		1.1	**	6.1	1.1	**	3.9
Education	No schooling	14.1	12.2	**	3.6	**	13.6	3.6	**	9.1
	Primary	23.9	19.4		15.8		22.8	15.8		19.7
	Some secondary	31.4	33.4		55.1		31.9	55.1		42.3
	Grade 12	15.5	18.4		19.0		16.2	19.0		17.5
	Tertiary	14.9	16.3		6.3		15.2	6.3		11.3
B. Socio-cultural factors:										
Gender	Male	37.9	23.9	**	47.9	**	34.4	47.9	**	40.1
	Female	62.1	76.0		52.0		65.5	52.0		59.8
Headship	Head	75.4	16.8	**	5.3	**	60.6	5.3	**	35.7
	Non-head	24.5	83.1		94.6		39.3	94.6		64.2
Marital status	Single	47.3	21.7	**	88.6	**	41.0	88.6	**	61.1
	Married	52.6	78.3		11.3		58.9	11.3		38.8
Family status	Head/spouse	91.9	77.7	**	10.5	**	88.3	10.5	**	53.5
	Child	4.8	12.7		68.4		6.8	68.4		34.4
	Other family member	2.8	8.1		18.8		4.1	18.8		10.7
	None-family member	0.3	1.4		2.1		0.6	2.1		1.3
Age (years)		43.9	39.6	**	25.1	**	42.8	25.1	**	34.8
C. Other factors:										
Race	African	79.5	74.6	**	85.6	**	78.2	85.6	**	81.5
	Coloured	9.1	10.7		8.3		9.5	8.3		9.0
	Asian/Indian	2.6	3.3		2.0		2.7	2.0		2.4
	White	8.7	11.3		3.9		9.3	3.9		6.9
Per capita household income quintile	Q 1	16.7	15.9	*	22.6	**	16.5	22.6	**	19.2
	Q 2	18.0	18.4		23.2		18.1	23.2		20.4
	Q 3	20.5	17.6		23.0		19.8	23.0		21.2
	Q 4	23.3	22.9		19.3		23.2	19.3		21.4
	Q 5	21.3	25.0		11.8		22.2	11.8		17.5

Note: Results are weighted. Decision-making status refers to being a decision-maker in any decision-making sphere, either as a principal or joint decision maker. Hypothesis [1] tests for statistically significant differences between the principal versus joint decision makers. Hypothesis [2] compares outcomes across all three categories, namely principal, joint and none-decision making status. Hypothesis [3] tests for statistically significant differences between decision maker and non-decision makers. ** $P < 0.01$; * $p < 0.05$

Table 13: Characteristics of decision makers – household formation

Characteristics		Decision-making Status								
		Principal	Joint	[1]	None	[2]	Any	None	[3]	Average
A. Financial and economic factors:										
Income share (%)		57.3	32.3	**	14.5	**	51.2	14.5	**	36.3
Employed		57.8	43.2	**	23.5	**	54.3	23.5	**	42.7
Home owner		58.4	29.5	**	2.8	**	51.3	2.8	**	31.7
Bank account		50.0	46.1	**	23.4	**	46.1	23.4	**	39.4
Credit access		21.9	21.3		6.7	**	21.8	6.7	**	16.1
Savings access		8.0	6.2		1.3	**	7.6	1.3	**	5.2
Education	No schooling	13.1	10.0	**	3.6	**	12.4	3.6	**	8.9
	Primary	23.2	17.7		15.0		21.8	15.0		19.1
	Some secondary	30.4	32.5		53.9		30.9	53.9		40.2
	Grade 12	17.1	21.0		20.0		18.1	20.0		18.8
	Tertiary	16.0	18.5		7.2		16.6	7.2		12.8
B. Socio-cultural factors:										
Gender	Male	49.7	20.3	**	44.9	**	42.7	44.9	**	43.5
	Female	50.2	79.6		55.0		57.2	55.0		56.4
Headship	Head	85.0	9.6	**	2.3	**	65.9	2.3	**	38.3
	Non-head	14.9	90.3		97.6		34.0	97.6		61.6
Marital status	Single	50.9	21.6	**	87.1	**	43.9	87.1	**	60.2
	Married	49.0	78.3		12.8		56.0	12.8		39.7
	Head/spouse	95.3	78.0	**	9.9	**	91.9	9.9	**	58.5
Family status	Child	1.9	10.8		67.5		4.1	67.5		29.6
	Other family	2.3	8.9		19.8		3.9	19.8		10.3
	Non-family	0.3	2.1		2.6		0.7	2.6		1.5
Age (years)		44.3	39.9	**	25.1	**	43.3	25.1	**	35.9
C. Other factors:										
Race	African	75.6	68.4	**	83.7	**	73.9	83.7	**	77.8
	Coloured	8.7	10.6		8.7		9.2	8.7		9.0
	Asian	2.8	2.9		2.2		2.8	2.2		2.6
	White	12.7	17.9		5.2		14.0	5.2		10.4
Per capita household income quintile	Q 1	13.8	13.2	*	21.5	**	13.6	21.5	**	16.8
	Q 2	14.7	14.5		22.1		14.6	22.1		17.6
	Q 3	17.7	17.4		22.9		17.6	22.9		19.7
	Q 4	24.7	23.7		20.1		24.5	20.1		22.7
	Q 5	28.9	15.2		13.2		29.4	13.2		22.9

Note: Results are weighted. Decision-making status refers to being a decision-maker in any decision-making sphere, either as a principal or joint decision maker. Hypothesis [1] tests for statistically significant differences between the principal versus joint decision makers. Hypothesis [2] compares outcomes across all three categories, namely principal, joint and none-decision making status. Hypothesis [3] tests for statistically significant differences between decision maker and non-decision makers. ** $P < 0.01$; * $p < 0.05$

Table 14: Characteristics of decision makers – household residence

Characteristics		Decision-making Status								
		Principal	Joint	[1]	None	[2]	Any	None	[3]	Average
A. Financial and economic factors:										
Income share (%)		57.5	32.0	**	14.6	**	51.3	14.6	**	36.3
Employed		57.9	42.6	**	23.7	**	54.3	23.7	**	42.7
Home owner		58.2	30.1	**	3.1	**	51.3	3.1	**	31.7
Bank account		50.2	46.2	**	23.3	**	49.2	23.3	**	39.4
Credit access		22.2	21.5		6.5	**	22.0	6.5	**	16.1
Savings access		8.2	6.2		1.1	**	7.7	1.1	**	5.2
Education	No schooling	13.0	10.2	**	3.8	**	12.3	3.8	**	8.9
	Primary	23.1	17.9		15.1		21.8	15.1		19.1
	Some secondary	30.2	33.0		53.8		30.9	53.8		40.2
	Grade 12	17.2	21.6		19.7		18.2	19.7		18.8
	Tertiary	16.4	17.1		7.3		16.5	7.3		12.8
B. Socio-cultural factors:										
Gender	Male	56.0	20.0	**	44.6	**	42.9	44.6	**	43.5
	Female	49.9	79.9		55.3		57.0	55.3		56.4
Headship	Head	85.0	10.6	**	2.9	**	66.9	2.9	**	40.8
	Non-head	14.9	89.3		97.1		33.0	97.1		59.1
Marital status	Single	51.2	21.1	**	86.7	**	44.0	86.7	**	60.2
	Married	48.7	5.1		13.2		55.9	13.2		39.7
	Head/spouse	95.3	78.5	**	10.4	**	91.2	10.4	**	58.5
Family status	Child	2.0	10.1		67.2		3.9	67.2		29.6
	Other family	2.2	9.0		19.7		3.9	19.7		10.3
	Non-family	0.3	2.2		2.5		0.8	2.5		1.5
Age (years)		44.2	40.4	**	25.2	**	43.3	25.2	**	35.9
C. Other factors:										
Race	African	75.6	68.1	**	83.8	**	73.8	83.8	**	77.8
	Coloured	8.5	11.4		8.6		9.2	8.6		9.0
	Asian	2.8	2.7		2.3		2.8	2.3		2.6
	White	12.9	17.7		5.1		14.1	5.1		10.4
Per capita household income quintile	Q 1	13.7	12.9	*	21.7	**	13.5	21.7	**	16.8
	Q 2	14.6	14.5		22.1		14.6	22.1		17.6
	Q 3	17.8	17.1		22.7		17.6	22.7		19.7
	Q 4	24.6	24.2		20.1		24.5	20.1		22.7
	Q 5	29.1	31.1		13.1		29.6	13.1		22.9

Note: Results are weighted. Decision-making status refers to being a decision-maker in any decision-making sphere, either as a principal or joint decision maker. Hypothesis [1] tests for statistically significant differences between the principal versus joint decision makers. Hypothesis [2] compares outcomes across all three categories, namely principal, joint and none-decision making status. Hypothesis [3] tests for statistically significant differences between decision maker and non-decision makers. ** $P < 0.01$; * $p < 0.05$

Table 15: Characteristics of decision makers - total

Characteristics		Decision-making Status: Principal	Joint	[1]	None	[2]	Any	None	[3]	Average
A. Financial and economic factors:										
Income share (%)		55.4	25.2	**	13.0	**	49.6	13.0	**	36.3
Employed		56.7	39.5	**	21.2	**	53.5	21.2	**	42.7
Home owner		54.4	24.2	**	2.0	**	48.6	2.0	**	31.7
Bank account		50.0	40.9	**	21.6	**	48.3	21.6	**	39.4
Credit access		22.5	16.4	**	5.6	**	21.4	5.6	**	16.1
Savings access		8.3	3.7	**	0.7	**	7.5	0.7	**	5.2
Education	No schooling	12.5	10.7	**	3.1	**	12.1	3.1	**	8.9
	Primary	22.4	18.0		14.8		21.5	14.8		19.1
	Some secondary	30.5	36.0		55.4		31.6	55.4		40.2
	Grade 12	17.3	22.2		19.9		18.3	19.9		18.8
	Tertiary	17.1	12.9		6.6		16.3	6.6		12.8
B. Socio-cultural factors:										
Gender	Male	45.5	23.4	**	47.6	**	41.5	47.6	**	43.5
	Female	54.4	76.5		52.3		58.4	52.3		56.4
Headship	Head	75.5	9.8	**	1.9	**	63.0	1.9	**	40.8
	Non-head	24.4	90.1		98.0		36.9	98.0		59.1
Marital status	Single	47.8	30.5	**	91.2	**	44.6	91.2	**	60.2
	Married	52.1	69.4		8.7		55.3	8.7		39.7
	Head/spouse	92.4	68.8	**	6.4	**	88.0	6.4	**	58.5
	Child	4.1	15.3		70.9		6.2	70.9		29.6
Family status	Other family	2.9	12.6		20.1		4.7	20.1		10.3
	Non-family	0.4	3.2		2.5		0.9	2.5		1.5
Age (years)		43.7	38.6	**	24.1	**	42.7	24.1	**	35.9
C. Other factors:										
Race	African	74.2	75.0		84.0	**	74.3	84.0	**	77.8
	Coloured	8.8	10.0		8.8		9.0	8.8		9.0
	Asian	2.9	2.6		2.1		2.9	2.1		2.6
	White	13.9	12.2		4.8		13.6	4.8		10.4
Per capita household income quintile	Q 1	13.1	15.6	**	22.5	**	13.6	22.5	**	16.8
	Q 2	14.6	16.4		22.4		14.9	22.4		17.6
	Q 3	18.0	19.1		22.3		18.2	22.3		19.7
	Q 4	24.8	24.1		19.3		24.6	19.3		22.7
	Q 5	29.3	24.5		13.2		28.4	13.2		22.9

Note: Results are weighted. Decision-making status refers to being a decision-maker in any decision-making sphere, either as a principal or joint decision maker. Hypothesis [1] tests for statistically significant differences between the principal versus joint decision makers. Hypothesis [2] compares outcomes across all three categories, namely principal, joint and none-decision making status. Hypothesis [3] tests for statistically significant differences between decision maker and non-decision makers. ** $P < 0.01$; * $p < 0.05$