TESTING OWN-FUTURE VERSUS HOUSEHOLD WELL-BEING DECISION RULES FOR MIGRATION INTENTIONS IN SOUTH AFRICA

by

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ABSTRACT

The objective of this paper is to analyze how self-reported migration decision rules -- own-future attainment, maximize household income, and reduce household risk -- affect intentions to migrate of male and female adults in South Africa. Direct comparative tests of these neoclassical microeconomic and new economics of migration theoretical perspectives in the same study design are rare in migration scholarship. Data from the 2001-2002 Causes of Migration in South Africa national migration survey are used in to test gender and migration decision rule-specific logistic regression models of intentions to migrate. The results showed that the neoclassical "best for own future" perspective is valid primarily for short time horizon migration decision making of never married males and females and divorced/separated males. The new economics of migration "reduce household risk" perspective only applied to longer time horizon migration decision making of married males, particularly South African Black males. The results provided no support for the maximizing household income perspective for explaining migration intentions in South Africa. Determinants of migration intentions within each decision rules differed somewhat by gender. Theoretical implications are that explanations of migration intentions are segmented by gender, time horizon, and migration decision rules.

Introduction:

The two major microeconomic theories of migration have contrasting perspectives on whether an individual's decision to migrate is based on what is best for one's own future or whether the decision is based on returns for the household as a whole in a developing country context (Kok et al. 2005). The neoclassical microeconomic theory of migration decision making posits that migration is an individual choice whereby the rational actor is motivated to move to maximize one's own personal gains, whether in terms of monetary or human capital (Todaro 1976; Massey et al. 1998). In contrast, the new economics of migration theory places migration decisions within the context of the household and contends that the family is at the center of migration decision making. Proponents of this theory argue that migration decisions are rarely made by individual actors but rather by families and households (Stark and Bloom 1985; Stark 1991; Fisher et al. 1997). Within this framework, an individual's decision to migrate is not based mainly on maximizing ones own expected well-being but rather for the benefit of the household and other family members. The focus thus shifts from individual independence to mutual interdependence, and it has been argued that this perspective is particularly salient for developing countries (Stark and Bloom 1985; Lauby and Stark 1988; Root and De Jong 1991; Fisher et al. 1997; Massey et al. 1998).

While each one of these perspectives has established its own niche within the set of available theories that attempt to explain migration behavior, the question as to which is the more valid explanation for migration behavior remains unresolved, as few direct comparative tests exist in the migration literature (Massey et al. 1998:279). Both theories assume that all individuals will behave to maximize desired outcomes, but do developing

country residents decide to migrate based on an individual choice to enhance their own future or for the enhancement of the household (Kok et al. 2003)? Furthermore, do the determinants of migration intentions differ for people whose migration decision making is based on the neoclassical versus the new economics of migration framework? While individual human capital is expected to be strong predictors of migration intentions in the neoclassical framework, household economic and demographic attributes are expected to be of dominant importance from the new economics of migration perspective.

Possible gender differences also have received little attention in the economic literature. In developing country contexts, are men more likely to move than women, and are men more likely to base their decision on individual attainment goals while women base their decisions on household needs? Are different migration decision perspectives invoked for intentions to migrate in the more immediate future verses the more distant future? These questions are addressed in this paper.

We advance the literature with a new approach to testing neoclassical verses new economics of migration theories, and provide new evidence based on self-reported rules respondents say they use to decide whether or not to migrate. We utilize data from a national migration survey from South Africa to test how these migration decision making frameworks may differ in predicting both short-term and long-term intentions to migrate for males and females.[1] We further test whether the determinants of migration intentions differ by own-future versus household well-being decision rules.

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[1] A theoretical justification for addressing migration intentions as a proximate determinant for migration behavior is from the fundamental intentions-behavior work by Ajzen and associates (Azjen and Fishbein 1980; Azjen 1988) in his Theory of Planned Behavior, and its conceptual application to migration decision making by De Jong and Fawcett (1981) and an intentions-behavior based General Model of Migration Decision-Making by De Jong (1999). This general model of migration decision-making was tested using longitudinal migration intention and behavior data in a developing country context (De Jong 2000). The results confirmed the hypothesized impact of intentions in predicting permanent but not temporary

Theoretical Framework:

While theories at various levels of aggregation - macro, meso, and micro - have been proposed in the migration literature to explain the determinants and persistence of migration (Massey et al. 1998; Faist 1997; Fischer et al. 1997), the primary concern in this research is a comparative test of migration intention probabilities based on propositions from neoclassical microeconomic and the new economics of migration theories. Individual choice is at the center of decision making within the framework of the neoclassical microeconomic theory. This theory argues that individuals behave as rational actors and decide to migrate based on cost-benefit calculations that migration will yield positive returns to the individual. People choose to migrate as a form of investment in human capital, moving to places where they feel their skills can be improved and rewarded. From this perspective individuals migrate based on a decision that is best for their own future (Todaro 1976, 1989).

This theory has been criticized for being individualistic and assuming that the migrant is in total control of his/her decision to move. What has been ignored, according to the critics, is the household context in which an individual is making such a decision (Stark and Bloom 1985; Fisher et al. 1997; Massey et al. 1998). The new economics of migration theory shifts the decision making from the individual and argues that the appropriate units of analysis are families and households (Stark and Bloom 1985). The theory is called "new" precisely because of the emphasis on household context that had been left out of the conceptualization in most previous migration theories. As Massey et al. (1998) write, "A key insight of this new approach is that migration decisions are not

migration behavior, and showed that migration intentions were more salient in predicting migration behavior for women than men.

made by isolated individual actors, but by larger units of related people – typically families or households – in which people act collectively not only to maximize expected income, but also to minimize risks and to loosen constraints associated with a variety of market failures, apart from those in the labour market (21)."

It has been argued that especially within the context of developing countries, an individual is motivated to move not only for his/her own goals but also for the survival of the household (Lauby and Stark 1988). The perspective of the new economics of migration becomes especially relevant in these contexts because poor families in developing countries lack institutional mechanisms of private insurance markets and governmental programs that minimize household risks in the more developed countries. Thus, there is the incentive to self-insure by sending one or more family members to a city or abroad to remit earnings that guarantees family income and minimizes risks incurred through crop failures, crop price fluctuations, and unemployment (Massey et al. 1998). As Lauby and Stark (1988) conclude, "A large proportion of rural-urban migrants in developing countries are unmarried and remit a significant part of their earnings to their parents, thereby reducing the income variance associated with work in agriculture (474)."

For these authors, developing countries migration evidence supports the arguments of the new household economic theory, based mostly on maximizing household income and minimizing household risk rather than an individual assessment of what is best for one's own future. However for South Africa, Kok et al. (2003) contend that the assumption of the new economics of migration theory that all individuals in a household have similar motivations is simplistic. They write, "Debates within the

household as the migration decision making unit are therefore nowhere near a resolution in the African context, as elsewhere (15)." In particular gender differences would be expected within decision making frameworks, and how these gender differences affect determinants of short-term and longer-term intentions to migrate is a focus of this study.

Gender and Migration

The neoclassical microeconomic theory and the new household economic theory both have failed to take into consideration possible gender differences in the decision to migrate (Pessar 1999). The neoclassical microeconomic theory usually assumes that the male is the actor in most migration decision making. Females are assumed to be passive participants, merely following along in the migration of a male (Riley and Gardner 1993; Pedraza 1991; Pessar 1999). In the new household economic theory, analysis is limited to the household's cost-benefit calculation, but how these decision processes may be different for males and females has not been given much consideration (Pessar 1999). Recent case studies have documented how men and women experience migration differently. For example, Pessar (1999) illustrates that the decision to send an unmarried daughter abroad involves consideration of the daughter's sexual freedom and promiscuity in addition to the economic benefits. Also, while women may migrate independently, such decisions may be limited by the needs of the household. Chant and Radcliffe (1992) write that in the Philippinies, "…migration decisions of young single women are usually structured with respect to potential benefits for the household as a whole (15)." Thus, in such circumstances women's decision to migrate may be based on the needs of the household rather than on one's own individual advancement. Also, it has been argued

that compared to men, women attach greater importance to the family and culturally are expected to do so in many societies (Chant and Radcliffe 1992).

Studies which separately analyze male/female migration intention and behavior support an imperative to examine gender differences in migration (Hugo 1999; Kanaiaupuni 2000; Cerrutti and Massey 2001). Kanaiupuni (2000) finds that in Mexico high female employment reduces the likelihood that men begin migrating. Furthermore, higher levels of education increases migration among women but have a negative effect on men's migration. This suggests that education and employment experiences may act differently in the migration behavior of men and women. Cerrutti and Massey's (2001) Mexican study finds that while adult men move for employment, adult women migrate for family reasons. However, younger daughters tend to move for work and the determinants of their migration are similar to sons and fathers. This further indicates that while gender is an important dimension to consider in migration patterns, it is cross-cut by other variables such as age and particularly by marital status. Migration intentions and behavior may differ between ever married males versus never married males and ever married females versus never married females. For example, young single females may be more similar on migration intentions and behaviors to young single males as compared to older married females (Chant and Radcliffe 1992). Kanaiaupuni (2000) found that in Mexico migration risks were higher for single women relative to married women. Also, single individuals may be more likely to base their intentions to move on what is best for their own future while those who are married are more likely to consider what is best for the household and other members of the family.

While patterns of male/female migration intentions and behavior have received some attention in the recent sociological literature, these findings have not been systematically integrated with economic theories to explain male and female migration intentions and behavior. In this research we examine male and female intentions to migrate in South Africa and how these intentions differ by decision making strategies. We also examine whether the determinants of migration intentions vary by decision making frameworks and whether the determinants are different for males and females for each decision making framework held by respondents in South Africa.

Grounded in the preceding review of the economic and gender migration theory literature, we test the following hypotheses:

1a. Based on the neoclassical microeconomic theory assumption that migration is a result of expected positive returns accruing to the individual, we hypothesize that respondents expressing a "what is best for own future" migration decision perspective will have higher short-term and longer-term intentions to migrate than those holding household income maximization or other household well-being decision perspectives.

1b. The alternative hypothesis, based on the new household economic theory assumption that migration ensues as a result of a household's attempt to maximize expected household income, is that respondents expressing a "household income maximization" migration decision perspective will have higher short-term and longer-term intentions to migrate than those holding all other individual or household well-being decision perspectives.

2. Based on the gender-migration literature, migration intentions are expected to be higher for men than women and for never married and divorced than married adults.

3. The relationship between migration decision perspective and intentions to migrate is expected to be conditioned by marital status, with "best for own future" effects for never married males and stronger "reducing household risk" and "best for family members" perspectives for married males or females.

4. Human capital variables are expected to be stronger predictors of migration intentions in the "best for own future" perspective. In contrast, household resource variables are expected to be stronger predictors of migration intentions in the "maximize household income" and "reducing household risk" perspectives.

South African Migration Context

South Africa still suffers from the legacy of racially-based stratification and spatial separation. The effects of past apartheid policy particularly affected the black-African population, which now constitutes nearly 78 percent of the national population. While not prevented, African spatial migration was severely constrained by the pass (influx control) laws, and the forced resettlement of millions of Africans and minority groups. Densely populated rural informal settlements with no economic base came into being in the former homeland areas during the process of displacement urbanization, thereby increasingly separating most Africans' place of employment and place of residence (Gelderblom and Kok 1994).

Within this context, several salient factors affect current migration intentions by rural and urban residents. The first is public policy. Kotze and Hill (1997) chronicle the

historical impact of disjointed regional economic development resulting for the discovery

of mineral wealth, the regulation of transnational labor migration, and the internal

migration pass laws of the apartheid period. More recently after the influx controls were

removed, many of the largest metropolitan areas such as Johannesburg and Cape Town

have experienced large influxes of African migrants from all areas of South Africa. As if

the dam of unrealized migration intentions had been broken, an impact of the political

and policy changes of the mid-1990s has been a return to internal migration patterns

similar to the pre-apartheid period (Kok et al. 2003).

Second, the historically dominant patterns of internal migration have been rural-

to-urban and rural-to-rural streams. However, the 2001 South African census showed that

54 percent of the population now lives in urban areas. With the transition in residential

structure to urban places, urban-to-urban is the emergent migration pattern, and this

pattern will gain salience as the urbanization transition continues in South Africa. Third,

the dynamics of temporary versus more permanent urban migration may be changing.

According to Gilbert and Crankshaw (1999), "The evidence suggests that few of

Soweto's migrants are sojourners and that many have lived in Johannesburg for a long

time. They are different from the migrants of an earlier age who spend three years on a

work contract and then went home (2389)." The dynamics of temporary versus more

permanent migration can be expected to have an impact on intentions to migrate as

migrant networks become solidified by stable family and friend ties in destination urban

areas. It would also be expected that the demographic composition of rural formerly

temporary intended migrants would be dominated by young adults with generally higher

intentions to move in search of employment opportunities, while urban-to-urban streams

would include somewhat older and more experienced workers who typically have lower intentions to migrate (Mazur 1998).

Data and Methods:

Past research has used several methodologies for testing neoclassical and new economics of migration theories of migration. First, primarily one-time period survey data on individual human capital, employment, wages, and demographic attributes have been used to test neoclassical theory propositions, while tests of new economics of migration hypotheses have focused on household size, income, social network ties, remittance flows, and community labor market characteristics as predictors of migration behavior (cf. Massey et al. 1998: 69-83). However, comparative tests of both theories within the same study design are relative rare (Massey et al. 1988:279). Second, results from post-move "why did you move" survey questions (i.e. to take a job, to join family members, to get married, etc.) have been taken as evidence concerning pre-move motivations for migration, even though these studies have incorrect motive-behavior causal order and no comparative group information for non-migrants (United Nations Secretariat 1991). Third, game-theory based studies use post-move earnings gains/losses to infer pre-move motivations of households to move to maximize income, and to infer whether the household conditioned its pre-move decision to move on post-move symmetric earnings outcome results for both spouses (Jacobsen, et al).

We use a new and different approach. Our test is based on pre-move interview responses where adults provide their own evidence about self-identified own-future attainment compared to alternative household well-being migration decision rules, and

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the relationship of these individually-held decision rules responses to migration intentions.

The data used for the study are from the 2001-2002 Causes of Migration in South Africa Survey, sponsored by the Human Sciences Research Council (HSRC). The survey collected information from 3,618 households in 711 enumeration areas. In addition to the household questionnaire, a randomly selected adult between the ages of 18-69 completed an individual questionnaire. A stratified cluster random sampling design was utilized for the survey based on several strata: 1) the local government, 2) spatial Development Initiative Areas, and 3) population groups of African/black, colored, Indian/Asian, and White. Data for the household and for the randomly selected adult (age 18-69) household member who completed the individual questionnaire are used in this analysis.

Logistic regression models are based on weighted data, where weights were adjusted to retain the original sample size. Cases with missing data are not excluded from the analysis to avoid erroneous inferences that can stem from the rejection of cases in which data are not missing completely at random. Instead, we employed Bayesian procedures for the multiple imputation of missing data (Schafer 1997). Five imputations were made to generate plausible values for missing data, and the five imputed data sets were analyzed with standard complete-data methods. The results were combined to yield estimates, standard errors, and p-values that incorporate uncertainty about missing data.

Dependent Variables:

The dependent variables used for the analysis are two measures of intentions to migrate at two different time horizons.

1. **Intend to move in the next 12 months**: This measure combined the responses of two questions: a) plan to move from this area to settle permanently in another area in South Africa or in another country, with b) plan to move from this area for a few months to work or look for work or for other reasons and then return to this area.

2. **Intend to move in the next 5 years**: This measure combined the two responses above for the next 12 months with responses to similar permanent and temporary migration intention questions concerning migration in one to five years.

Table 1 provides descriptive statistics on the percent who intend to migrate in the next 12 months and next 5 years for the total South African sample as well as samples stratified by sex and then by marital status (never married and married samples) within each gender.

[Insert Table 1 here]

As shown in Table 1, nearly one-in-six (16.4 %) of the total South African sample adult population reported intentions to migrate from their present area of residence in the next 12 months. If the time period is extended to five years, the survey results indicate that just over one-in-four (25.6 %) of all South African adults intend to migrate. When examining male and female samples separately, intentions to migrate in the next 12 months are similar, 17.1 percent for males and 15.7 percent for females. In the long term, a higher percent of males report an intention to migrate (29.0 %) compared to females (22.5 %).

In further examining marital status by gender intentions to migrate, we find that never married males and females have quite similar intentions to migrate. In the short

term 19.6 percent of never married males and 22.8 percent of never married females intend to migrate, while in the next 5 years 34.2 percent of never married males and 33.8 percent of never married females intend to migrate. For married respondents, males report a higher intent to migrate than females both in the short-term (13.6 % vs. 9.9 %) and long-term (22.5 % vs. 13.5 %).

Independent Variables:

Since the primary goal of this paper is to examine how the neoclassical microeconomic and new economics of migration theories predict migration intention by gender and marital status, the individual respondents' migration decision making perspective was measured by the answer to the following question, "In thinking about whether you intend to move or stay here, on which of the following, if any, will you base your decision (to move or stay)?." Four response categories were given to respondents plus an "other" open-ended response opportunity: 1) On what would be best for your own future, 2) On the household's need for a higher income, 3) On reducing the risk of bad things happening to this household, and 4) On what is best for family members who are not currently part of this household.   A follow-up question asked respondents which statement best reflects how they approach the decision whether or not to migrate. This question captures the extent to which a respondent's intention to migrate is based on individual achievement gains or on new economics of migration-identified benefits of migration. In this sample, 68.1 percent of all South African respondents stated that their decision to migrate will be based on what is best for one's own future, 17.4 percent will base their decision on their household's need for a higher income, 8.6 percent will base their decision on reducing the risk of bad things happening to their household and 5.9

percent stated their decisions will be based on what is best for family members who are not currently part of their household/other perspective[2] (Appendix table).

Several covariates known to be associated with migration intentions and behavior are included in the models. These include measures of 1) marital status, 2) migration motives, operationalized by value-expectancies questions about perceived origin versus destination area opportunities, 3) life satisfaction, 4) family and friend migration pressure, 5) human capital, 6) household relationship, 7) race/ethnic and demographic characteristics, and 8) household resources. Frequency distributions for these variables are provided in the Appendix table. The value-expectancy items have been constructed based on the formula suggested by De Jong and Fawcett (1981, pg. 47). Value-expectancies scores measure the respondent's assessment of the extent to which he/she can attain valued goals (i.e. get a good job, have an exciting life, live near people you can rely on) in the current place of residence compared to a (another) major South African urban area. In this analysis six value-expectancy dimension scores are included in the statistical models: 1) cultural environment, 2) urban environment, 3) wealth and comfort, 4) affiliation and morality, 5) stimulation, and 6) services and facilities. A positive difference score shows greater expectations of attaining their goals in major urban areas. Migration pressure is a measure of an individual's perceived pressure from (if applicable) a spouse, father, mother, or closest friend to either migrate or stay in the present area. These variables are used in the separate analysis of each decision making framework.

The analysis strategy is to first present cross-tabulations of intentions to migrate in the next 12 months and next 5 years by migration decision rules for males and females.

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[2] Very few responded in the "other" category. These responses have been combined with this fourth category

Next, a series of logistic regression model results are presented. Our base model includes

migration decision rules, marital status and household relationship. These models are run

for the total South African sample and separately for males and females. Based on

migration theory, an interaction between migration decision rules and marital status

would be expected. Finally, we explore whether there are similar or different

determinants of migration intentions across three decision making perspectives -- 1) what

is best for one's own future, 2) to maximize household income, 3) to reduce the risk of

bad things happening to this household[3] -- by running separate regression models for

each decision making framework for the five year time horizon[4].

Descriptive Results

[Insert Table 2 here]

Table 2 presents cross-tabulations of intentions to move in the next 12 months and

next 5 years by the individual respondent's stated migration decision rule. This

relationship is examined separately for males and females. Among both males and

females, those who say that migration decisions would be based on one's own future are

most likely to intend to move in the short-term. About 20 percent of males and 18

percent of females in this category intend to move compared to less than 13 percent

intending to move in the next 12 months in the other household decision framework

categories. Females expressing a decision making framework that is based on what is

best for other family members are the least likely to intend to move in the short-term

(3.2%). In the long term, among females, those who say decisions should be based on

what is best for one's own future are most likely to intend to move while for males it is

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[3] We did not run a separate regression for what is best for other family members in the household because of the small sample size.
[4] Separate male/female models were only possible for five year time horizon migration intention data.

those who say what is best for other family members that are most likely to intend to move, although the differences in percentages are very small. When looking at migration decision framework differences by time-frame, a much higher percent of individuals expressing a best for own future decision rule versus the three household decision frameworks intend to migrate in the next 12 months for both males (20% vs. 11%, 10% and 11%) and females (18% vs. 11.3%, 13.1% and 3.2%). In contrast, percentages of individuals stating an intention to migrate in the next 5 years were similar across categories of migration decision rules. This evidence suggests that the strategy that is driving an individual's intent to migrate differs by gender and time frame of intent.

While respondents were not asked about the "certainty" of their intentions to migrate, they were asked the reverse question: "How unlikely is it that you will never move away from this area?" Over 82 percent of respondents who intend to move in the next five years responded that it was unlikely that they will never move away from this area, Furthermore, of those who reported they intend to migrate in the next five years and named an intended destination area, over 70 percent reported they were "likely or very likely to actually move to that place." This evidence suggests that migration behavior is not only seen as available to South African adults, but also that their intentions will be realized.

Regression Results

Basic Model:

[Insert Table 3 here]

Tables 3 shows logistic regression results of the effect of migration decision rules, marital status and household relationship on male and female intentions to migrate in the

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next 12 months and next 5 years. The total sample includes all South African adults and separate regressions are run for males and females. In support of the neoclassical economic theory, the model 1 direct effect results in the top panel of Table 3 show that for migration intentions in the short-term, individuals who say they base their migration decisions on what is best for own future are significantly more likely to migrate, compared to individuals who say they base their decisions on maximizing household income (the new economic of migration theory decision rule reference category in this analysis). These results are statistically significant for males (odds ratio: 1.99) and females (odds ratio: 1.69). The interaction effect results in model 2 reinforce support for the neoclassical theory position with a very high migration intention probability (odds ratio: 9.18) for the interaction of never married males with the best for own future decision rule versus the maximization of household income reference perspective. A similar interaction effect for females also indicated increased but not statistically significant intentions to migrate. A best for other family members decision perspective is associated with significantly lower (over 70 percent less likely) intentions to move for females in the next 12 months versus household income maximization.

The lower panel of Table 3 shows similar models for intentions to migrate in the next five years. Supporting one argument of the new economics of migration theory, results from the interaction model 2 show that males who say they base their migration decision on reducing household risk are over twice (odds ratio: 2.12) as likely to intend to move compared to the maximizing household income reference category. This decision also is significantly conditioned by marital status with a very low migration intentions probability (odds ratio:0.10) for the interaction of never married and reducing household

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risk, which translates into a high probability (reciprocal odds ratio: 1.90) for the interaction of married males (the reference category) and reducing household risk in predicting longer-term intentions to migrate. For females the direct effect, but not the interaction effect, is statistically significant, but only at the .10 level.

In general both never married males and females are significantly more likely to intend to migrate both in the short-term and long–term compared to married individuals. However, gender differences emerge as divorced and separated males but not females are significantly more likely to intend to migrate (odds ratio: 3.31) in the short-term compared to married men. Alternatively, female household heads or spouses but not male householders are significantly less likely to intend to migrate compared to other individuals in the household for both time-horizons (odds ratio: 0.63 in the next 12 months and 0.58 in the next 5 years).

In sum, these findings provide unique gender qualifications to both neoclassical microeconomic and to the new economics of migration theories as explanations for intentions to migrate.

[Insert table 4 here]

Decision Making Determinants Models:

Table 4 presents logistic regression results of the determinants of intentions to migrate in the next 5 years for male and female adults by their self-identified best for own future, maximizing household income, and reducing household risk migration decision making rules.[5]

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[5] We did not run a separate regression for what is best for other family members in the household because of the small sample size in this category.

The first general hypothesis underlying this part of the analysis is that individual human capital attributes will be more salient determinants of intentions whether or not to migrate for South African adults expressing a best for own future migration decision making perspective than for those holding either of the other household well-being migration decision making perspectives. The results in Table 4 show general support for this hypothesis. In support of the hypotheses, labor force human capital (currently working) and migration capital (ever lived outside this area) are statistically significant determinants of migration intentions (odds ratio of 2.69 and 3.15, respectively) only for males holding a best for own future decision making perspective. However, educational attainment levels are associated with higher migration intention probabilities in both best for own future and for maximizing household income analyses, although this relationship is not as salient for respondents holding a reducing household risk decision perspective.

A second general hypothesis for this part of the analysis is that household size and resources will be more salient determinants of intentions whether or not to migrate for South African adults holding either a maximize household income or a reduce household risk migration decision making perspective. The results in Table 4 provide little support for this hypothesis as few of the household size or resource attributes show a consistent relationship pattern with migration intentions across the three migration decision making perspectives. Notable is the inconsistent impact of household income levels on migration intentions for adults holding either a maximizing household income or a reduction in household risk decision making perspective.

The results in Table 4 do identify three determinants of increased intentions to migrate which are common to all three decision making perspectives – (dis)satisfaction

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with life in the current place or residence, younger age, and to a lesser extent perceived pressure of family members and friends to migrate. With the exception of younger age, these ubiquitous determinants of migration intentions have not been prominent components of either neoclassical economic or new economics of migration theories of migration.

Salient for the South African context is the high migration intention probability (odds ratio: 45.17) for Black males who hold a reducing household risk decision perspective. The results in Table 4 also show that statistically significant value-expectancy-based motivations to live in an urban environment accompany the reducing household risk migration decision rule for both male and female adults.

While the results show some important differences in the determinants of migration intentions across the three neoclassical and new economics of migration decision perspectives, several gender differences in the determinants of migration intentions also appear in Table 4. Among the more salient findings: labor force human capital (currently working) and migration capital (ever lived outside this area) are only important determinants of migration intentions for males, while educational human capital is particularly salient for migration intentions for females. Home ownership reduces and poor quality electric service increases the migration intention probabilities for females but not for males. Finally, female but less so male value-expectancy-based motivations for migration emphasize an urban environment along with wealth and comfort values.

Conclusions and Discussion:

The objective of this paper was to examine how self-reported migration decision rules – own-future attainment, maximize household income, and reduce household risk – affect the intentions to migrate of male and female adults in South Africa. Overall the results showed that the validity of these economic theoretical perspectives vary by gender and time frame of the intentions to migrate.

First, in support of the neoclassical microeconomic theory, both the descriptive and the regression model findings provided considerable support for our first hypothesis that respondents expressing a "what is best for own future" migration decision perspective have significantly <u>higher</u> short-term intentions to migrate than those holding household income maximization or household well-being decision perspectives. However, this neoclassical theory-based hypothesis was not supported for long-term migration intentions. This suggests the importance of time horizon on migration decision making rules, with an individualistic approach more salient when thinking of moving in the immediate future. Perhaps South Africans' high post-apartheid expectations of social equality and rapid economic development promoted the strong relationship between own future attainment and intentions to migrate.

The findings provided no support for the new economics of migration alternative hypothesis that migration intentions ensue as a result of a household's desire to maximize household income. However, the results did support one assumption of the new household economic theory as married males whose decision strategy was based on reducing household risk had significantly higher intentions to migrate in the long term. The absence of high migration intention probabilities of a maximizing household income

decision perspective is noteworthy. The evidence in this study suggests the viable longer time horizon <u>household</u> rule is to minimize risk, not to maximize income, as contrasted with the best for own future short time horizon rule. The high migration intention interaction probability for Black males with a reducing household risk decision perspective, and the statistically significant value-expectancy-based goal of living in an urban environment provides a unique insight into the motivation for rural-urban migration of some Black South African workers.

Second, the results provide mixed support for hypothesis two in that while migration intentions were not higher for males than females, intentions were quite different by marital status. Never married males and females were more likely to intend to move than married individuals in both time horizons, while separated and divorced males also had higher migration intentions than married men. The similarity in migration intention probabilities for never married males and females suggests that past norms of male-dominated labor migration are changing, with perceived increased opportunity for migration of women in South Africa today.

Third, there was, however, support for the hypothesis that the relationship between migration decision perspectives and intentions to migrate is conditioned by marital status and gender. There was a significant interaction between "best for own future" migration decision perspective and never married, and between "reduce household risk" and married on intentions to migrate. However, this interaction was gendered, as the results show higher interaction odds for men but non-significant odds for women. Furthermore, never married males showed the strongest "best for own future" effects on intentions to migrate in a short time horizon, while married males had stronger

"reduced household risk" effects on intentions to migrate in a longer time horizon. These complex relationships are in the context of rapid transition in the South African economy from a rural farm/extractive to a service-oriented occupational structure. The differential effects of this transition for short and long-term migration intentions of younger single and older married male and female workers with different family role expectations and levels of human capital emphasize the need for longitudinal migration data.

Fourth, the evidence provided only partial support for the conclusion that there are different determinants of migration intentions for adults who base their migration decisions on the neoclassical or on the alternative new economics of migration perspective. Human capital attributes (labor force and migration [prior migration experience] capital for men and educational attainment capital for both women and men) were particularly salient predictors of migration intentions for adults with the best for own future decision rule. However, few systematic patterns of relationships between household resource/composition variables (notably household income) and migration intentions were apparent for adults with either the maximizing household income or the reducing household risk perspectives. Furthermore, the evidence showed several common predictors across all perspectives -- (dis)satisfaction with life in the current place, young age, and to a lesser extent family and friend pressure to migrate – factors not always considered in economic models of migration.

For migration theory, the results of this paper suggest that gender role and marital status theoretical propositions need to be systematically incorporated into both neoclassical microeconomic and new economics of migration propositions. Our empirical results showed that neither theory provided a ubiquitous explanation for migration

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intentions. The neoclassical theory propositions were only valid for short time horizon migration decision making of never married males and females, and there was no empirical support for maximizing household income as a unique explanation for higher migration intention probabilities, at least in South Africa. The reducing household risk perspective only applied for longer time horizon migration decision making primarily of married males, and particularly of Black males. This evidence along with the somewhat different gender-specific determinants of migration intentions within decision rule categories suggests that maximizing household income and reducing household risk are not symmetric arguments in the new economic of migration theory. Furthermore, non-economic value-expectancy theory-identified motivations for migration decision making have emerged from this and earlier studies, including the urban environment motive, stimulation motive, and affiliation motive, along with the economic theory motives for income and wealth (De Jong 2000). Our evidence of segmented gender, time horizon, and migration decision rules should facilitate the development of a more integrated theory of migration decision making.

Table 1: Frequency Distribution of Dependent Variables

Samples	Intention to Migrate in 12mo	Intention to Migrate in 5 years
Total (3448)	16.4 %(387)	25.6 %(686)
Male (1325)	17.1 %(167)	29.0 %(324)
Never Married (510)	19.6 %(94)	34.2 %(181)
Married (722)	13.6 %(57)	22.5 %(122)
Female (2123)	15.7 %(220)	22.5 %(362)
Never Married (700)	22.9 %(124)	33.8 %(198)
Married (1048)	9.9 %(70)	13.5 %(118)

Table 2: Percentage Distribution of Intentions to Migrate in Next 12 Months and Next 5 Years, by Gender and Migration Decision Rules

	Male				Female			
	12 Months		**5 Years**		**12 Months**		**5 Years**	
	%	**N**	**%**	**N**	**%**	**N**	**%**	**N**
Best for own future	20.1	120	29.5	218	18.4	142	24.5	231
Maximize Household Income	11.2	28	29.0	52	11.3	43	18.6	61
Reduce Household Risk	10.4	14	24.6	38	13.1	24	20.2	43
Best for other family members	11.0	4	32.1	15	3.2	11	17.0	26

Table 3

Migration Decision Rules and Marital Status Determinants of Male and Female Intentions to Migrate in Next 12 Months and Next 5 Years: Logistic Regression Odds Ratios

Model Components	12 mos. Odds Ratios Total Model 1		Total Model 2		Male Model 1		Male Model 2		Female Model 1		Female Model 2	
A. Migration Decision Rules (Maximize HH Income)												
Best for own future	1.83	***	0.88		1.99	**	0.73		1.69	**	1.28	
Reduced Household Risk	1.20		1.06		0.97		0.75		1.43		1.71	
Best for other Family Members	0.52	*	0.50	*	0.89		0.79		0.27	**	0.27	**
B. Marital Status (Married)												
Never Married	1.54	**	0.52	*	1.34		0.23	**	1.86	***	1.35	+
Widowed	0.63	+	0.64	+	0.76		0.81		0.68		0.67	
Divorced/Separated	1.95	*	1.79	*	3.31	**	2.67	*	1.37		1.36	
C. Household Relationship (All other relations)												
Household head/spouse	0.74	*	0.72	*	0.91		0.90		0.63	**	0.63	**
D. Interaction (Migration decision rules and never married)												
Best for own future * Never Married			4.08	***			9.18	***			1.61	
Reduced Household Risk * Never Married			0.97				1.38				0.52	
Number of cases	3401		3401		1305		1305		2093		2093	
Intercept	-2.13	***	-1.61	***	-2.20	***	-1.49	***	-2.12	***	-1.95	***
-2 Log-Likelihood	2935.73		2899.58		1175.84		1144.73		1715.91		1709.39	
Chi-Square Likelihood Ratio	114.15	***	150.29	***	30.50	***	61.61	***	110.82	***	117.35	***

Reference Category in parentheses
+p<.10; *p<.05; **p<.01; ***p<.001

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Table 3 Continued

Migration Decision Rules and Marital Status Determinants of Male and Female Intentions to Migrate in Next 12 Months and Next 5 Years: Logistic Regression Odds Ratios

Model Components	5 yrs Odds ratios Total Model 1		Total Model 2		Male Model 1		Male Model 2		Female Model 1		Female Model 2	
A. Migration Decision Rules (Maximize HH Income)												
Best for own future	1.14		1.19		1.07		1.23		1.32	+	1.29	
Reduced Household Risk	1.07		1.80	**	0.92		2.12	*	1.39		1.76	+
Best for other Family Members	1.00		1.01		1.23		1.25		0.96		0.96	
B. Marital Status (Married)												
Never Married	1.73	***	2.03	***	1.47	*	1.96	*	2.22	***	2.29	**
Widowed	0.57	*	0.58	*	0.67		0.72		0.69		0.69	
Divorced/Separated	1.43		1.44		1.88		1.96	+	1.32		1.32	
C. Household Relationship (All other relations)												
Household head/spouse	0.66	***	0.65	***	0.80		0.75		0.58	***	0.58	***
D. Interaction (Migration decision rules and never married)												
Best for own future * Never Married			0.91				0.78				1.03	
Reduced Household Risk * Never Married			0.26	***			0.10	***			0.56	
Number of cases	3401		3401		1305		1305		2093		2093	
Intercept	-1.23	***	-1.31	***	-1.04	***	-1.19	***	-1.58	***	-1.60	
-2 Log-Likelihood	3734.57		3717.95		1555.21		1538.32		2092.86		2090.53	
Chi-Square Likelihood Ratio	151.42	***	168.04	***	26.30	***	43.20	***	150.24	***	152.57	***

Reference category in parentheses
+p<.10; *p<.05; **p<.01; ***p<.001

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Table 4

Determinants of Male and Female Intentions to Migrate in Next 5 Years with Own Future and Household Well-Being Migration Decision Making Rules:

Logistic Regression Odds Ratios

Model Components	Male			Female		
	Best for Own future	Max.HH Income	Reduce HH Risk	Best for own future	Max. HH Income	Reduce HH Risk
A. Marital Status (Married)						
Never Married	1.01	0.20	0.10	1.88 **	7.46 **	0.21
Widowed/Divorced/Separated	2.98 +	11.13 +	0.70	1.72	2.36	6.30 *
B. Migration Motivation (Value-Expectancy)						
Cultural Environment	0.99	1.13 *	0.95	0.99	1.00	1.05
Urban Environment	1.02	1.02	1.11 *	1.02 *	0.98	1.12 ***
Wealth and Comfort	0.99	1.02	0.99	1.01 *	1.07 **	0.95 +
Affiliation and morality	0.99	0.89 *	1.04	1.01	0.97	1.00
Stimulation	1.04 **	0.99	1.00	1.00	1.00	1.05
Services and Facilities	1.00	1.04 +	1.03	1.00	1.00	0.97 +
C. Life Satisfaction	0.62 ***	0.30 ***	0.70	0.72 ***	0.52 ***	0.54 *
D. Migration Pressure						
Family/Friend Pressure to Migrate-Yes	4.85 ***	0.09 +	14.26	1.85 *	8.37 ***	4.28 +
Family/Friend Pressure to Stay-Yes	0.70	2.74	0.49	1.01	2.79 +	0.49
E. Human Capital						
1. Educational Attainment (Up to Primary)						
Secondary School (8-11)	0.60	1.75	0.07	2.95 ***	3.32 *	7.22 *
High School (12)	0.65	23.10 **	0.44	2.49 ***	2.68	6.70 +
Post School Qualification	2.37 *	17.94 *	1.97	7.02 ***	35.65 ***	10.99 +
Education Not Reported	0.66	52.68 +	2.89	3.29 **	23.53 ***	15.59 +
2. Currently Working - Yes	2.69 ***	0.38	5.65	0.94	2.62	0.43
3. Ever Lived Outside This Area-Yes	3.15 ***	2.77	1.00	1.23	0.60	1.51

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F. Demographic Characteristics

	C1		C2		C3		C4		C5		C6	
1. Age	0.69	**	0.65	**	0.82	***	0.75		0.48	**	0.72	***
2. Race/Ethnicity (Indian/Asian/colored/white)												
African/Black	5.79	+	1.53		0.79		45.17	*	0.42		0.78	
3. Household Relationship (All other relations)												
Head/Spouse	0.46		8.72	*	0.72		22.54		0.20		0.54	+
4. Household Size (Less than 4 Persons)												
4-5 Persons	0.71		2.94		0.57	*	1.79		1.46		0.75	
6 or more Persons	1.05		3.05		0.83		<0.01	**	0.36		0.65	
G. Household Resources												
1. Monthly Household Income (No Income)												
<R1000	0.50		0.47		1.12		0.38		0.62		0.64	
R1001-2500	0.18		0.09	*	1.33		0.09		7.93	*	0.43	*
>R2,500	2.32		0.53		2.38	*	0.57		0.04	*	0.42	+
Refused to Answer	0.93		<0.01	***	0.84		0.48		0.92		0.29	+
2. Home Ownership-Yes	4.03		0.38	*	0.52	***	1.15		0.33		0.88	
3. Quality of Water (Very Good/Good)												
Acceptable/poor/uncertain/no service	0.16	+	2.23		0.81		6.27	*	8.77	**	1.27	
4. Quality of Electric Service (Very Good/Good)												
Acceptable/poor/uncertain/no service	18.52	**	1.46		2.33	***	0.41		0.93		0.52	*
Number of cases	305		390		1248		170		230		833	
Intercept	-3.13		-3.52	*	-0.48		-5.09		4.69	+	1.74	*
-2 Log Likelihood	131.9		209.8		1072.2		80.1		114.7		716.4	
Chi-Square Likelihood ratio	174.7	***	163.1	***	317.6	***	109.5	***	159.6	***	295.9	***

Reference category in parentheses
+p<.10; *p<.05; **p<.01; ***p<.001

Appendix:

Frequency Distribution of Independent Variables in the Model, N=3448

Independent Variables	Distribution	N
A. Migration Decision Rules		
Maximize Household Income	17.1%	620
Best for Own Future	68.1%	2079
Reduced Household Risk	8.6%	475
Best for other Family Members/other perspective	5.9%	228
B. Marital status		
Married	40.9%	1770
Never Married	49.2%	1210
Widowed/Divorced/Separated	9.9%	468
C. Migrant Motivation: Value-Expectancy	(Range: 0-100)	
1. Cultural Environment	Mean: 11.5, SD: 8.5	3448
2. Urban Environment	Mean: 19.3, SD: 12.4	3448
3. Wealth and Comfort	Mean: 21.3, SD: 16.2	3448
4. Affiliation and Morality	Mean: 15.7, SD: 10.7	3448
5. Stimulation	Mean: 20.3, SD: 16.1	3448
6. Services and Facilities	Mean: 26.1, SD: 22.0	3448
D. Life Satisfaction		
Very Dissatisfied	16.7%	383
Dissatisfied	19.5%	588
Neither or Don't Know	10.8%	389
Satisfied	35.7%	1486
Very Satisfied	17.3%	602
E. Migration Pressure		
1. Family/Friend Pressure to Migrate -Yes	9.4%	249
2. Family/Friend Pressure to Stay –Yes	16.7%	464
F. Human Capital		
1. Educational Attainment		
Up to Primary	41.1%	866
Secondary School	23.0%	895
High School	23.3%	1014
Post School Qualification	8.3%	456
Education Not Reported	4.3%	217
2. Currently working – Yes	33.8%	1311
3. Ever Lived outside this area - yes	40.8%	1372
G. Demographic Characteristics		
1. Age		
16-19	9.3%	216
20-24	14.6%	424
25-29	13.0%	354
30-34	15.1%	400
35-39	9.6%	425
40-44	9.0%	381
45-49	8.2%	338
50-54	7.9%	297
55-59	4.9%	225
60-64	4.3%	205
65+	4.3%	183

2. Gender		
Male	47.1%	1325
Female	52.9%	2123
3. Race/Ethnicity		
African/Black	77.3%	1533
Indian/Asian/Colored/White	22.7%	1915
4. Household Relationship		
Household Head/Spouse	54.7%	2302
5. Household Size		
Less than 4 Persons	26.3%	1139
4-5 Persons	28.0%	1257
More than 6 Persons	45.7%	1052
H. Household Resources		
1. Monthly Household Income		
No Income	37.7%	1134
Less than R1,000	34.2%	941
R1,001-2,500	11.0%	401
More than R 2,500	10.6%	625
Refused to Answer	6.5%	347
2. Home Ownership – Yes	75.4%	2716
3. Quality of Water		
Very good/good	57.7%	2290
Acceptable/poor/uncertain/no service	42.3%	1158
4. Quality of Electricity		
Very good/good	59.2%	2310
Acceptable/poor/uncertain/no service	40.8%	1138

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