

Social Drivers of Aspirations Formation and Failure in Rural Nepal

William M. Thompson

University of Georgia
willt78@uga.edu

Sarah A. Janzen

Montana State University
sarah.janzen@montana.edu

Nicholas P. Magnan

University of Georgia
nmagnan@uga.edu

Sudhindra Sharma

Nepā School of Social Sciences and Humanities
sudhindra.sharma@nepaschool.edu.np

*Selected paper prepared for presentation at the 2015 Agricultural & Applied
Economics Association and Western Agricultural Economics Association
Annual Meeting, San Francisco, CA, July 26-28.*

*Copyright 2015 by William Thompson, Sarah Janzen, Nicholas Magnan and Sudhindra
Sharma. All rights reserved. Readers may make verbatim copies of this document for
non-commercial purposes by any means, provided that this copyright notice appears on all
such copies.*

Social Drivers of Aspirations Formation and Failure in Rural Nepal

William M. Thompson^{*1}, Sarah A. Janzen², Nicholas P. Magnan¹, and
Sudhindra Sharma³

¹Department of Agricultural and Applied Economics, University of Georgia

²Department of Agricultural Economics and Economics, Montana State University

³Nepā School of Social Sciences and Humanities

May 27, 2015

Abstract

The importance of aspirations for economic decision making has recently gained attention in the field of development economics. It's been suggested that aspirations are formed from observing the status of one's peers, and a failure of aspirations may result in a tendency to behave in a myopic and seemingly suboptimal manner. In this paper we provide the first known empirical test of the aspirations failure theory articulated in Appadurai (2004) and Ray (2006) using a unique dataset from rural Nepal. We ask two questions: (1) Does the current status of others in my aspirations window predict my own aspirations? (2) Is the aspirations gap correlated with future-oriented behavior? Our analysis suggests that the readily observable assets of one's peers are quite important for one's own wealth aspirations. However, the income of one's peers, which is more readily hidden, is not important for one's aspirational income. We also find evidence in support of Ray's hypothesis that the aspirations gap is what ultimately drives future-oriented behavior, rather than aspirations or current standard of living.

1 Introduction

Considerable microeconomic evidence suggests that poor households frequently underinvest even when returns are high (Duflo, Kremer, and Robinson, 2009). Development economists have generally attributed this failure to optimize to external constraints: thin or missing markets for inputs and outputs, inadequate vehicles for savings, asymmetric information, and social sharing norms are examples. Because conventional economic concepts often provide incomplete or unsatisfying explanations for sub-optimal future-oriented behavior, economists have in recent years turned increasingly to behavioral economics for solutions. One of the more interesting precepts gaining traction in the development literature deals

*Corresponding author: willt78@uga.edu, 302 Conner Hall, Athens, GA 30606

with aspirations- or more specifically that a failure of aspirations may result in a tendency to behave in a myopic and seemingly suboptimal manner.

The concept of an aspirations failure is not original to economics, but is adapted to economic behavior from theoretical works in anthropology, sociology, and psychology. One branch of this school of thought emerges largely from the work of Appadurai (2004) and Ray (2006) concerning ‘capacity to aspire.’ According to Appadurai, an individual’s capacity to aspire reflects his or her awareness of more and less immediate objects of aspiration and the pathways that connect them, forming a sort of aspirational map that is more circumscribed and less dense for the poor than it is for the better-off.

Ray (2006) adapts and expands the concept to include aspirations windows and aspirations gaps. Aspirations windows are formed by the experiences or situations of ‘similar’ or ‘attainable’ individuals. While a very poor individual may know of an extremely high achieving and successful individual, or even know her personally, she may be too successful to be considered attainable and therefore not influence the poor individual’s aspirations window. Meanwhile, this same individual may know a slightly better-off, but still poor, individual that is attainable, and therefore does influence her aspirations window.

Aspirations gaps are the distance between where an individual is in terms of a given outcome, and what they can see in their aspirations window. Ray (2006) postulates that the amount an individual invests in their future through education, health, purchasing productive assets, etc. is a function of their aspirations gap, but the function is not monotonic. If the gap is very small, the individual does not need to do much to bridge it so they do not invest much. If the gap is too large, it may seem impossible to bridge resulting in frustration and no investment at all. This is what Ray (2006) terms an aspirations failure, and these failures are an important social phenomenon.

To date, few empirical papers test for the social origins of aspirations windows and gaps postulated by Ray (2006). This paper seeks to fill this gap in the literature. Using detailed social network, wealth and income data, we construct individual aspirations windows based on the status of women in the sample that are also in the individual’s social network. We then estimate how different aspects of this window (connections to those of higher, equal, or lower status) affect aspirations and aspirations gaps. Finally, we test for correlation between aspirations gaps and future-oriented behavior.

The paper proceeds as follows. In section 2 we provide some background information on behavioral drivers of poverty and the social aspects of aspirations formation. In section 3 we discuss our study setting and data collection. In section 4 we present our empirical findings. In section 6 we conclude.

2 Background: Poverty and Aspirations

2.1 Aspirations failures and poverty

Aspirations failure as a barrier to investment is an intriguing and important concept. Most policies to increase investment among the poor take aim at external constraints. Examples include policies designed to increase access to savings such as promoting informal village

banking systems such as ROSCAs (Besley, Coate, and Loury, 1993) or decreasing transaction costs to access formal banking (Jack and Suri, 2011; Flory, 2012), interventions to overcome information by failures by explaining the benefits of investments such as education (Nguyen, 2008), and conditional cash transfer programs that alleviate the need for child labor and also encourage investment in education (Skoufias et al., 2001). The recognition that some of the constraints to investment and other future-oriented behavior are internal opens up vast opportunities for research and eventually development policy and interventions.

The empirical literature on behavioral causes of poverty traps is very recent and relatively small. Generally it does suggest that there is a link between ones prospects and/or aspirations and their willingness and ability to invest in the future. Macours and Vakis (2009) find that cash transfers and training in Nicaragua increased aspirations for recipients, and that aspirations were increased even further if leaders in recipients' social networks were also recipients, indicating a social aspect to aspiration formation. Furthermore, they find that this increase in aspirations led to future-oriented economic behavior. Laajaj (2014) describes a particular type of aspirations failure as the inability to think about a future without any prospects, resulting in a lack of investment. Using a randomized control, he shows that a positive shock lengthens poor farmers' planning horizons in Mozambique. Bernard et al. (2011) find evidence of aspirations failure in the fatalism exhibited by Ethiopian farmers, and that this failure is correlated with non future-oriented economic behavior.

2.2 The social origins of aspirations

There is a growing body of literature on the relative income and happiness, providing evidence that aspirations are in part a result of social factors. Stutzer (2004) finds that average community income increases individuals' income aspirations in Switzerland, which in turn negatively impact life satisfaction. Ferrer-i-Carbonell (2005) finds similar results in Germany, adding that income effects on well-being are mostly asymmetric: being poorer than average decreases well-being whereas being richer than average does not increase well-being. In a developing country context, Knight and Gunatilaka (2012) find that in rural China, aspirations are pushed upward by reference income (the self-reported minimum income needed to get by), and these aspirations decrease subjective well-being.

The aforementioned papers broadly show that reference income matters for well-being, and all claim that the aspirations drive this relationship; a high reference income increases aspirational income compared to actual income, which causes unhappiness. However, none of these papers actually attempt to measure aspirations, nor do they explore the effects that aspirations can have on forward thinking behavior like investment. Furthermore, they use very rough proxies for the relevant group from which comparison income is determined. In this paper we directly capture aspirations, allowing us to empirically estimate the effect of peers on aspirations ('aspirations windows'), and how these aspirations, compared to one's actual situation, affects investment ('aspirations gaps'). Instead of assuming who peers are by geography, we use detailed social network data that captures the relationships between individuals in our sample.

2.3 Aspirations windows and gaps

Underlying aspiration failures are two related concepts: ‘aspirations windows’ and ‘aspirations gaps’ (Ray, 2006). An individual forms her aspirations window from the people around her. This aspirations window then determines the bounds of one’s own aspirations. According to Ray (2006), people “draw [their] aspirations from the lives, achievements, and ideals of those who exist in [their] aspirations window.” The ‘aspirations gap’ is the difference between an individual’s realized standard of living and their aspired-to standard of living. It is these aspirations gaps that lead to an aspirations failure in one of two ways. Too small of a gap, representing an inability to conceive of a better future, is too easily bridged or so small as to not warrant the effort. Too large of a gap is unbridgeable and results in frustration rather than persistent action.

Ray’s aspiration failure theory can be formalized as follows: aspirations for some outcome k (e.g., income, education, social influence) are a function of an aspirations window that is socially formed, W_i^k , and one’s current status, S_i^k . We write this relationship as:

$$A_i^k = f(W_i^k(N_i), S_i^k), \quad (1)$$

where W_i^k is the aspirations window for outcome k and N_i is a vector of network characteristics. The aspirations gap can be thought of as a function of an individual i ’s aspirations and current state for that outcome. Because the aspirations gap cannot be negative, Ray describes the gap using:

$$G_i^k = g(A_i^k, S_i^k) = \max\left\{\frac{A_i^k - S_i^k}{A_i^k}, 0\right\} \quad (2)$$

The aspirations gap is therefore bounded between zero to one, where a gap of one means the individual has nothing and a gap of zero means she has reached her aspirations for k . Finally, investment and other forward thinking behavior is a function of the aspirations gap and other characteristics X_i :

$$y_i = h(G_i^k, X_i) \quad (3)$$

While this simple theoretical construct is appealing, it presents several empirical challenges that we discuss in the following section.

3 Study site and data

The framework articulated by Appadurai (2004) and Ray (2006) and described in the previous section has evaded empirical analysis for two main reasons. First, aspirations are not easily observed, and certainly not captured in most household surveys. Prior empirical work in the area either uses ad-hoc variables that proxy-for but do not quite capture the essence of aspiration (e.g. depression index (Macours and Vakis, 2009), locus of control (Bernard, Dercon, and Taffesse, 2011), or ask directly about aspirations (Beaman et al., 2012), but

don't consider all of the many ways that people aspire (for income, for material goods, for their children's future, for status). The very abstractness of the concept has made precisely defining and measuring aspirations difficult. In recent work, Bernard et al. (2011) and Bernard and Taffesse (2014) develop and test a novel aspirations measurement and indexing approach. In our analysis we borrow from their methodology, but use measures of aspirations for specific outcomes (income and education) as opposed to aggregating aspirations along multiple dimensions into a single index.

Second, defining an individual's social network is difficult. Even more difficult is knowing various outcomes of those in one's social network. For our analysis we use full within-sample network data to capture each individual's social network. Because we have extensive information on the economic and social situation of the members of each individual's social network (within the sample), we can approximate an aspirations window for each individual. Our networks data is sufficiently nuanced to define networks in a variety of ways, thus allowing us to test several possible specifications of the aspirations window.

To acquire this very unique dataset that combines information on aspirations, outcomes, and social networks we collected data from over 1,700 rural Nepali women across three regions of Nepal collected in 2014. Nepal is the poorest country in South Asia and the 13th poorest country in the world. In recent years, Nepal has made significant strides towards poverty alleviation, but poverty persists, especially in the countryside; 55 percent of Nepalese earn less than \$1.25 a day, and that number climbs sharply in the rural mountain and hill districts where more than 70 percent of people rely on agriculture for income generation (USAID, 2013). The women chosen for the study are generally poor, and are selected from a pool of prospective beneficiaries of an imminent asset transfer program that targets women. There are several other compelling reasons to focus on women's aspirations in Nepal. The condition of women, and their empowerment relative to men, is a development priority, evidenced by the third Millennium Development Goal and more recently, the World Bank 2012 World Development Report (World Bank, 2011). Recent studies demonstrate that greater female control over income (Malapit et al., 20015) and assets (Allendorf, 2007) result in better maternal and child nutrition in Nepal.

Data collection took place in two phases. First, a team administered an extensive household survey including questions about income, asset ownership and control, aspirations, and future oriented behavior. Income is yearly individual income, reported by the respondent. Asset value is for land and housing belonging to the household, which during pretesting were explained to be the most indicative of a household's asset base. To capture future-oriented behavior we asked questions about money put into savings, membership in a savings group, and discount rate. At this first interview, enumerators also took photographs of respondents to be compiled as village photo directories.

To capture aspirations, we adopt the module from Bernard et al. (2011) and Bernard and Taffesse (2014). This module asks respondents a series of four to six questions about their aspirations for income, assets (housing and land), education, and leadership status in the community. For income, these questions are: (1) "What is the maximum level of income that a person in your community might expect to earn in a year?", (2) "What is the minimum level of income that a person in your community might expect to earn in a year?", (3) "What is your present level of income?", and (4) "What level of yearly income do

you think you might be able to achieve in the future?”. Questions (1) and (2) are intended to make respondents delineate a realistic range before stating their own income and their aspirational income following Manski’s (2004) suggestions for measuring expectations.

Next, enumerators returned to conduct a social network surveys using the photo directories. Previous explorations of the social drivers of aspirations assume people’s relevant social network is geographical (Ferrer-i Carbonell, 2005; Stutzer, 2004; Knight and Gunatilaka, 2012). Recent studies on social learning and network affects have taken a more direct approach, asking each individual in the sample about his or her relationship with others in the sample (Maertens, 2013; Magnan et al., 2013; McNiven and Gilligan, 2012). We take this approach, asking each individual about their links to all other sample individuals in their village. While showing respondents the directory, enumerators asked a series of questions about their relationships, e.g., “Which of these people is in your immediate family?”, “Which of these people is a relative?”, “Which of these people is a friend?”, “From which of these people would trust information from regarding money and business?”, etc. Using this method, links can be classified as unidirectional (B is in As network if A claims B), bidirectional (B is in As network if A claims B or B claims A), or reciprocal (B is in As network if A claims B and B claims A). For analysis, we use unidirectional links.

Using these network variables, we create three different sets of variables to define the aspirations window. The first set of variables is (1a) the number of network contacts with a higher current status than the respondent and (1b) the number of contacts with a lower current status than the respondent. The second set of variables is (2a) the current status level of the network contact with the highest level and (2b) the current status level of the network contact with the lowest level. The third set of variables is (3a) the average level of the outcome for all network contacts with higher current levels than the respondent and (3b) the average level of the outcome for all network contacts with lower current levels than the respondent. In the next section we describe how the estimated aspirations window, defined in these three different ways, affects aspirations. We then calculate the aspirations gap (as defined in Equation 2) and estimate how it affects indicators of future-oriented behavior.

4 Estimation and results

Equipped with an improved means of defining and measuring aspirations, detailed networks data, and a full set of household economic data on all members of our sample and their networks, we are in a position to estimate the effect of aspirations windows on aspirations and aspirations gaps. We regress aspirations on a vector of network-related variables. We can then calculate aspirations gaps and estimate the impact of these gaps on future-oriented economic behavior to check for evidence of aspirations failure.

4.1 Aspirations formation

In this paper we look at aspirations for income and assets. Assets are calculated as the total value of all land and housing belonging to individual i Importantly, assets are more readily observable by peers than income, which can be kept hidden. Thus we might expect

aspirations to depend more on readily observable assets than the private income of one’s peers. Because the data for aspirational and actual income and assets have very long right tails, we use logged values.

First, we estimate aspirations for outcome k (where k is either income or assets) as a function of the number of network members above and below individual i for outcome k . Importantly, we control for her own current level of outcome k . The model is:

$$A_i^k = \beta_0 + \beta_1 \cdot above_i^k + \beta_2 \cdot below_i^k + \beta_3 \cdot S_i^k + \varepsilon_i^k \quad (4)$$

While this model captures how many people i has to look up to, it does not capture how far far they they can see. In the other three specifications, we incorporate the actual levels of k members of i ’s network exhibit. One possibility is to estimate aspirations for outcome k the highest level of outcome k in i ’s network. We cannot estimate the impact of the lowest level of k in i ’s network because it is zero for everyone in the sample. Again, we control for i ’s current level of k . The model is:

$$A_i^k = \beta_0 + \beta_1 \cdot max_i^k + \beta_2 \cdot S_i^k + \varepsilon_i^k \quad (5)$$

Another possibility is to estimate aspirations for k as a function of the average level of k in i ’s network controlling for i ’s current level of k . The model is:

$$A_i^k = \beta_0 + \beta_1 \cdot average_i^k + \beta_2 \cdot S_i^k + \varepsilon_i^k \quad (6)$$

Because people may look towards those above them but not below them when forming their aspirations for k , we also run this last model with the average level of k for those above i and the average level of k for those below i as separate variables:

$$A_i^k = \beta_0 + \beta_1 \cdot avgabove_i^k + \beta_2 \cdot avgbelow_i^k + \beta_3 \cdot S_i^k + \varepsilon_i^k \quad (7)$$

Table 5 reports the estimation results of network effects on aspirational income. The first column reports the results of estimating Equation 4, where k is income. The second column reports the estimation results using the strategy described in Equation 5. The third column reflects the estimation of Equation 6, and the fourth column matches the strategy presented in Equation 7. Contrary to our hypotheses, in each approach we find limited evidence that the income of people in an individual’s aspiration window matters. Rather, the results seem to suggest that an individual’s aspirational income relies heavily on her current income - a higher current income is correlated with higher aspirational income - but not the income of her peers.

As stated previously, income may be difficult to observe, whereas the value of land and housing is easily observable (or at least easily estimable). Table 5 reports the results of the same regressions using aspirational asset values (wealth) as the dependent variable instead of aspirational income. In other words, k is assets, a proxy for wealth. The findings are starkly different from those reported in Table 5. While an individual’s own assets remain statistically significantly important for aspiration formation, knowing individuals with higher asset levels also increases one’s aspirational wealth. This finding is robust across all four specifications considered. Interestingly, knowing individuals with lower asset levels doesn’t appear to draw down aspirations. Rather, individuals appear only to “look up” to those with a status above their own when forming their own aspirations.

4.2 Aspirations gaps and future oriented behavior

Next, we try to shed some light on whether and how aspirations gaps are correlated with future-oriented behavior. As a proxy for future-oriented behavior we consider membership in a savings group, whether she saved last month, amount saved last month, whether she plans finances into the future, number of weeks ahead she plans finances, and discount rate. Recall that $G_i^k = g(A_i^k, S_i^k) = \max\{\frac{A_i^k - S_i^k}{A_i^k}, 0\}$. We include the aspirations gaps for both income and asset value as explanatory variables of interest and their squared terms, which will allow for Ray's (2006) hypothesized inverted-U relationship between aspirations gaps and future oriented behavior. Because the aspirations gap is a function of current income, which is likely correlated with future oriented behavior through non-aspirational channels, we must control for current income in our estimation. The model becomes:

$$y_i = \beta_0 + \beta_1 \cdot G_i^{income} + \beta_2 \cdot G_i^{income^2} + \beta_3 \cdot G_i^{assets} + \beta_4 \cdot G_i^{assets^2} + \beta_5 \cdot S_i^{income} + \beta_6 \cdot S_i^{assets} + \varepsilon_i^k \quad (8)$$

Table 5 reports the results of estimating Equation 8 above. Each column in the table considers a different proxy for future-oriented behavior y_i . The first three columns consider savings as an indication of future-oriented behavior. Column (1) uses a dependent variable equal to one if the individual is a member of a savings group, column (2) uses a dependent variable equal to one if the individual reported any savings in the past month, and column (3) considers the amount saved in the previous month as a proxy for y_i . The fourth and fifth columns follow Laajaj (2014) and use as a dependent variable the response to "How much time ahead do you plan your future expenditures." (In column 4 the dependent variable takes a value of 1 if the respondent doesn't plan ahead, 2 if the respondent plans one week into the future, 3 if the planning horizon is one month, and 4 if the respondent claims to plan ahead six months or more. In column 5 the dependent variable converts these answers into weeks.) The sixth column employs a calculated discount rate for y_i by asking individuals to choose between receiving a smaller reward immediately and receiving a larger reward with some delay (following Ashraf, Karlan, and Yin (2006)).

The results presented in Table 5 provide some evidence that the income-based aspirations gap is correlated with future-oriented behavior. Aspiring for income levels that are higher than one's current income increases the likelihood that an individual plans and saves for the future. However, the relationship between the income gap and future-oriented behavior is nonlinear, as evidenced by the negative coefficient for $S_i^{income^2}$. This follows the theoretical prediction of an inverted-U relationship. On the contrary, the analysis does not provide evidence of a strong correlation between wealth aspirations and future-oriented behavior. Moreover, the model explains very little variation in the data, so these results should be interpreted with caution.

The regression strategy outlined in Equation 8 provides a useful first step approach, however, the hypothesized inverted-U relationship may be better captured using nonparametric techniques. Figures 1-5 use the lowess smoother to capture the relationship between the income aspirations gap and the various proxies of future-oriented behavior. In 4 out of the 5 figures we observe the anticipated inverted-U relationship. A small gap implies a low probability of investing in the future. A medium-sized gap is correlated with a higher

probability of investing in the future. But if the gap is too large, the probability of displaying future-oriented behavior declines to approximately the same likelihood as someone with a small income gap.

A similar analysis can be conducted using asset-based aspiration gaps. We do this analysis (the figures are left out for simplicity), but find no evidence of the inverted-U relationship when wealth-based aspiration gaps are used. It seems that income - which is privately known - is more relevant for determining aspirations failure, while wealth - which is public - is more important for aspirations formation.

5 Conclusion

A burgeoning literature has recently emerged that considers issues of identity and psychology as determinants of economic decision-making. Ray (2006) argues simply, “Poverty stifles dreams, or at least the process of attaining dreams.” Such constraints are now often being considered in addition to more classically binding constraints such as thin or missing markets, or asymmetric information, that have traditionally been recognized as important. Capacity to aspire is one such issue.

The aspiration failure framework developed in Appadurai (2004) and Ray (2006) has become seminal in the literature on aspirations. In this paper we test the aspirations failure theory using a unique dataset from rural Nepal. We ask two questions: (1) Does the current status of others in my aspirations window predict my own aspirations? (2) Is the aspirations gap correlated with future-oriented behavior? Our analysis suggests that the readily observable assets of one’s peers are quite important for one’s own wealth aspirations. However, the income of one’s peers, which is more readily hidden, is not important for one’s aspirational income. We find some evidence in support of Ray’s inverted-U hypothesis that the aspirations gap is what ultimately drives future-oriented behavior, especially aspirational income.

References

- Allendorf, K. 2007. “Do women’s land rights promote empowerment and child health in Nepal?” *World Development* 35:1975–1988.
- Appadurai, A. 2004. “The capacity to aspire: Culture and the terms of recognition.” *Culture and public action*, pp. 59–84.
- Ashraf, N., D. Karlan, and W. Yin. 2006. “Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines.” *The Quarterly Journal of Economics* 121:pp. 635–672.
- Beaman, L., E. Duflo, R. Pande, and P. Topalova. 2012. “Female leadership raises aspirations and educational attainment for girls: A policy experiment in India.” *Science* 335:582–586.
- Bernard, T., S. Dercon, and A.S. Taffesse. 2011. “Beyond fatalism-an empirical exploration of self-efficacy and aspirations failure in Ethiopia.”, pp. .

- Bernard, T., and A. Taffesse. 2014. "Aspirations: An Approach to Measurement with Validation Using Ethiopian Data." *Journal of African Economies* 23:189–224.
- Besley, T., S. Coate, and G. Loury. 1993. "The economics of rotating savings and credit associations." *The American Economic Review*, pp. 792–810.
- Duflo, E., M. Kremer, and J. Robinson. 2009. "Nudging farmers to use fertilizer: theory and experimental evidence from Kenya." Working paper, National Bureau of Economic Research.
- Ferrer-i Carbonell, A. 2005. "Income and well-being: an empirical analysis of the comparison income effect." *Journal of Public Economics* 89:997–1019.
- Flory, J.A. 2012. "Formal Savings Spillovers on Microenterprise Growth and Production Decisions Among Non-Savers in Villages: Evidence from a Field Experiment." In *Proceedings of the Annual Meeting, Agricultural and Applied Economics Association*.
- Jack, W., and T. Suri. 2011. "Mobile money: the economics of M-PESA." Working paper, National Bureau of Economic Research.
- Knight, J., and R. Gunatilaka. 2012. "Income, aspirations and the hedonic treadmill in a poor society." *Journal of Economic Behavior & Organization* 82:67–81.
- Laaajaj, R. 2014. "Closing the eyes on a gloomy future: Psychological causes and economic consequences."
- Macours, K., and R. Vakis. 2009. "Changing Households' Investments and Aspirations through Social Interactions.", pp. .
- Maertens, A. 2013. "Who cares what others think (or do)? Social learning, social pressures, and cotton farming in India." *University of Pittsburgh*, pp. .
- Magnan, N., D.J. Spielman, T.J. Lybbert, and K. Gulati. 2013. "Leveling with Friends: Social Networks and Indian Farmers' Demand for Agricultural Custom Hire Services.", pp. .
- Malapit, H., S. Kadiyala, A.R. Quisumbing, K. Cunningham, and P. Tyagi. 2015. "Women's empowerment mitigates the negative effects of low production diversity on maternal and child nutrition in Nepal." *Journal of Development Studies* Forthcoming.
- Manski, C.F. 2004. "Measuring expectations." *Econometrica* 72:1329–1376.
- McNiven, S., and D.O. Gilligan. 2012. "Networks and constraints on the diffusion of a bio-fortified agricultural technology: Evidence from a partial population experiment." *Unpublished, University of California, Davis*, pp. .
- Nguyen, T. 2008. "Information, role models and perceived returns to education: Experimental evidence from Madagascar." Unpublished.
- Ray, D. 2006. "Aspirations, poverty, and economic change." *Understanding poverty*, pp. 409–421.

- Skoufias, E., S.W. Parker, J.R. Behrman, and C. Pessino. 2001. “Conditional cash transfers and their impact on child work and schooling: Evidence from the progresá program in mexico [with comments].” *Economia*, pp. 45–96.
- Stutzer, A. 2004. “The role of income aspirations in individual happiness.” *Journal of Economic Behavior & Organization* 54:89–109.
- USAID. 2013. “Nepal Country Profile.”
- World Bank. 2011. *World Development Report 2012: Gender equality and development*, W. Bank, ed. Washington DC: World Bank.

Table 1. Network effects on aspirational income

VARIABLES	(1)	(2)	(3)	(4)
Number of links with higher income	-0.0233 (0.0256)			
Number of links with lower income	-0.0467** (0.0182)			
Log max link income		0.0269 (0.0354)		
Log mean link income			0.0168 (0.0413)	
Log mean income of links with higher income				0.0326 (0.0241)
Log mean income of links with lower income				-0.0204 (0.0406)
Log current income	0.719*** (0.0196)	0.713*** (0.0180)	0.714*** (0.0181)	0.726*** (0.0309)
Constant	2.843*** (0.207)	2.261*** (0.399)	2.419*** (0.339)	2.280*** (0.251)
Observations	1,585	1,585	1,585	1,546
R-squared	0.513	0.510	0.510	0.503

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Monetary values in Nepali Rupees.

Table 2. Network effects on aspirational asset value

VARIABLES	(1)	(2)	(3)	(4)
Number of links with higher assets	0.0553*** (0.0214)			
Number of links with lower assets	-0.0159 (0.0168)			
Log max link assets		0.138*** (0.0406)		
Log mean link assets			0.156*** (0.0454)	
Log mean assets of links with higher assets				0.0384** (0.0184)
Log mean assets of links with lower assets				0.0326 (0.0258)
Log current assets	0.939*** (0.0205)	0.904*** (0.0180)	0.903*** (0.0180)	0.898*** (0.0267)
Constant	0.346 (0.286)	-1.085* (0.596)	-0.846 (0.523)	0.292 (0.309)
Observations	1,585	1,585	1,585	1,541
R-squared	0.623	0.625	0.625	0.620

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Monetary values in Nepali Rupees.

Figure 1: Relationship between income aspirations gap and participation in a savings group using a Lowess Smoother

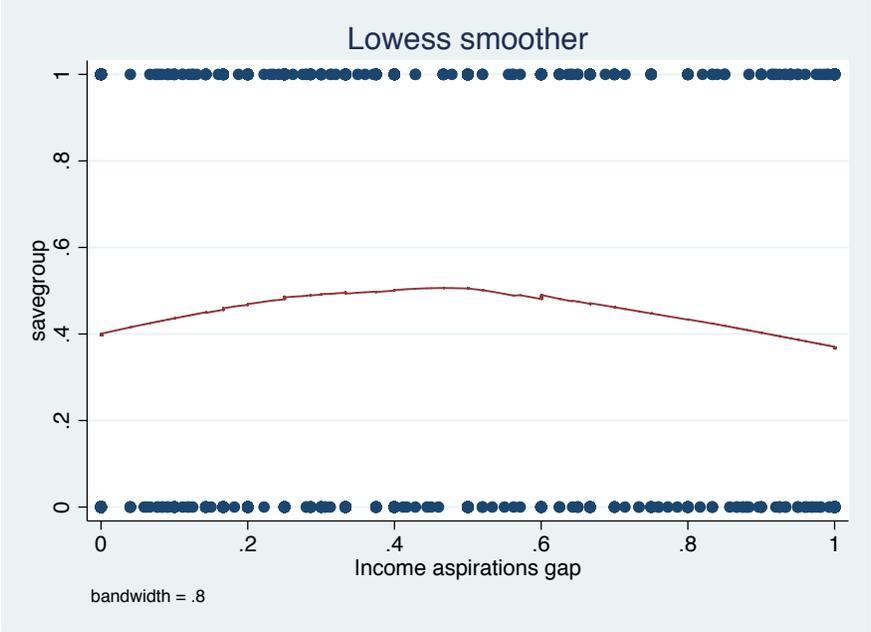


Figure 2: Relationship between income aspirations gap and saving in the previous month using a Lowess Smoother

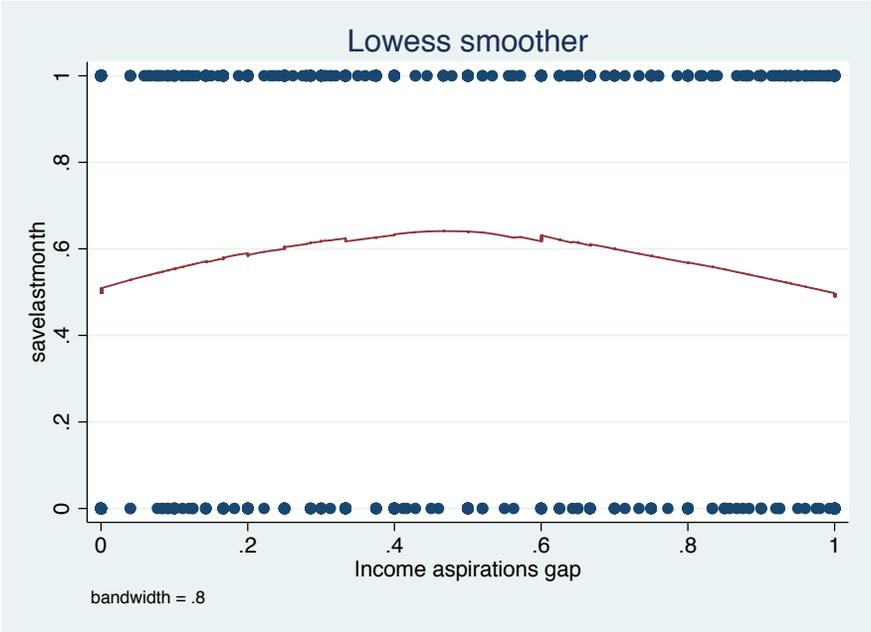


Figure 3: Relationship between income aspirations gap and whether one plans ahead using a Lowess Smoother

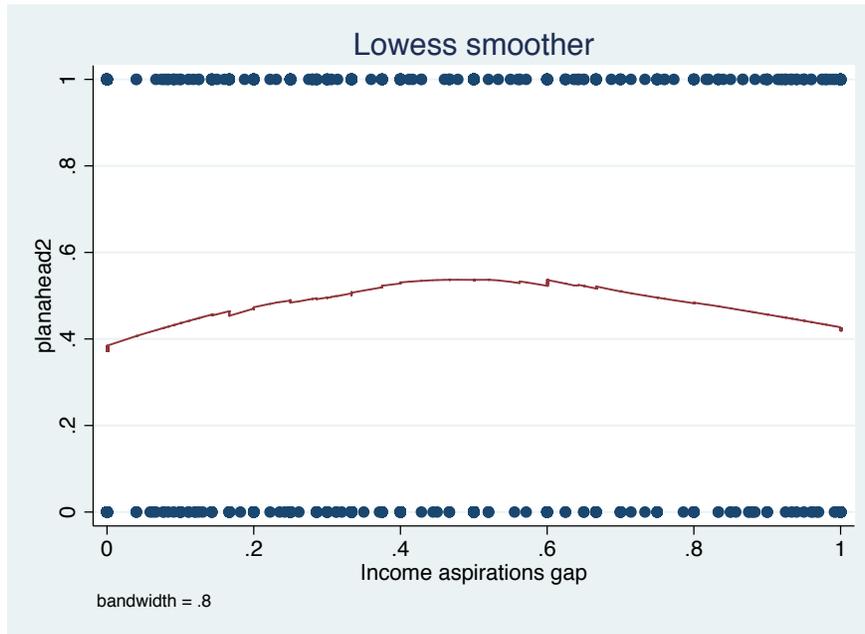


Figure 4: Relationship between income aspirations gap and planning horizon using a Lowess Smoother

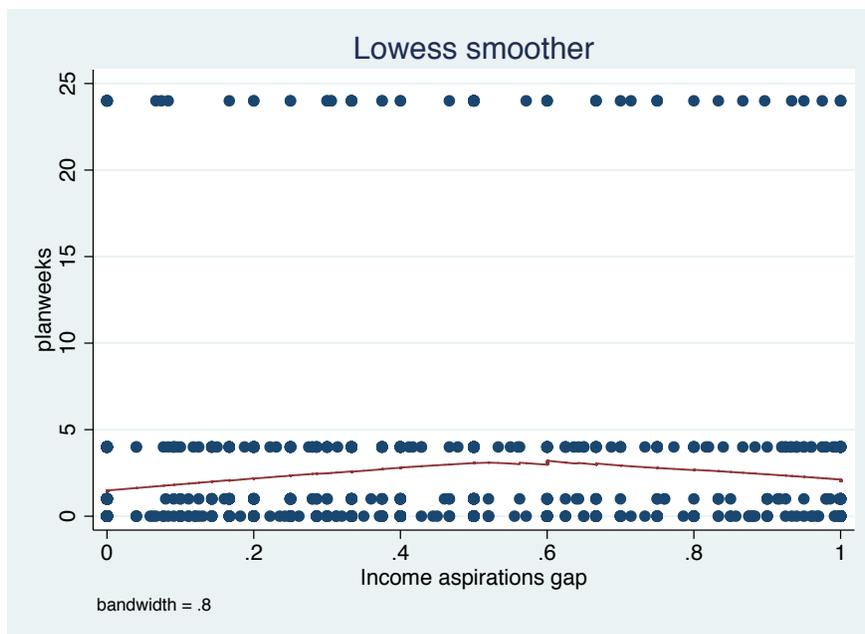


Table 3. Relationship between aspirations gaps and future-oriented behavior

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
	Savings group	Saved last month	Amt. saved	Plan ahead	Weeks ahead	Discount rate
Income aspirations gap	0.409** (0.159)	0.265* (0.159)	2,718 (6,502)	0.345** (0.160)	4.194*** (1.602)	-0.00591 (0.0356)
Income gap squared	-0.466*** (0.169)	-0.275 (0.169)	-3,532 (6,890)	-0.310* (0.170)	-3.491** (1.698)	0.0548 (0.0377)
Asset aspirations gap	-0.00403 (0.147)	0.0749 (0.146)	-3,600 (5,998)	-0.290* (0.149)	0.217 (1.478)	0.0585* (0.0326)
Asset gap squared	0.0621 (0.167)	-0.0778 (0.167)	2,530 (6,836)	0.502*** (0.170)	1.543 (1.684)	-0.00819 (0.0371)
Log current income	0.000557 (0.00343)	0.00986*** (0.00340)	35.77 (139.8)	0.0114*** (0.00346)	0.0618* (0.0344)	-0.00197** (0.000770)
Log current assets	0.0131*** (0.00333)	0.0117*** (0.00325)	168.4 (133.2)	0.00821** (0.00332)	-0.0368 (0.0328)	-0.000134 (0.000738)
Constant			-516.1 (1,521)		1.276*** (0.375)	0.0631*** (0.00857)
Observations	1,603	1,603	1,603	1,602	1,602	1,491
R-squared	0.0200	0.0293	0.002	0.0323	0.028	0.053

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Logistic regression for columns 1, 2, and 4 with marginal effects reported. Monetary values in Nepali Rupees.

Figure 5: Relationship between income aspirations gap and the discount rate using a Lowess Smoother

