CrossMark

Influences of Material Aspirations on Migration

Arland Thornton^{1,2,3} • Nathalie E. Williams^{4,5} • Prem Bhandari² • Linda Young-DeMarco³ • Cathy Sun² • Jeffrey Swindle^{1,2} • Christina Hughes⁴ • Yu Xie⁶

Published online: 4 January 2019 © Population Association of America 2019

Abstract

In this article, we investigate the influences of material aspirations on migration in Nepal, positing that material aspirations may have important influences on decisions to migrate and where to locate. We discuss a theoretical model explaining how these aspirations might be key influences in the migration decision. Using detailed continuous migration histories from the 2008–2012 Chitwan Valley Family Study, we estimate logistic and alternative-specific conditional logit models to examine how material aspirations in Nepal influence migration rates and destinations. Our empirical analyses provide strong evidence that material aspirations have large effects on overall rates of migration and affect destination-specific migration rates, particularly for relatively wealthy Western and Asian destinations. We also show an interaction effect between material aspirations and destination-specific expected earnings in influencing people's migration choices. It is the people with high aspirations who migrate to destinations with high earning potentials.

Keywords Migration · Ideational influences · Material aspirations

Arland Thornton Arlandt@umich.edu

- ¹ Department of Sociology, University of Michigan, Ann Arbor, MI 48106, USA
- ² Population Studies Center, University of Michigan, Ann Arbor, MI 48106, USA
- ³ Survey Research Center, University of Michigan, Ann Arbor, MI 48106, USA
- ⁴ Department of Sociology, University of Washington, Seattle, WA, USA
- ⁵ Jackson School of International Studies, University of Washington, Seattle, WA, USA
- ⁶ Department of Sociology, Princeton University, Princeton, NJ 08544, USA

Introduction

Ideational factors have recently gained substantial attention as important influences on personal and familial behaviors. Using theoretical work that explores the components of ideation and how they influence behavior (Bachrach 2014; Bachrach and Morgan 2013; Frye 2012; Johnson-Hanks et al. 2011; Vaisey 2009), new empirical research has demonstrated the importance of ideational factors for a wide array of behaviors, including cohabitation, spouse choice, educational attainment, adolescent sexual behavior, and neighborhood violence (Allendorf and Thornton 2015; Esteve et al. 2012; Kirk and Papachristos 2011; Miles 2015; Vaisey 2009; Victor et al. 2014). In this article, we build on this foundation and investigate how ideational factors—in particular, aspirations for material goods—might also influence migration behavior.

Migration research has long assumed that both material aspirations and material resources are important elements in migration decisions. Yet, with very few exceptions (e.g., De Jong 2000; De Jong and Fawcett 1981; De Jong et al. 1983, 1996), empirical research has not explicitly recognized the variability of material aspirations and how such variation might influence migration decisions. Instead, the bulk of migration research has inferred the association between aspirations and migration by the shape of the relationship between people's material resources and migration likelihood. However, *possessing* material goods is not necessarily the same as *valuing* material goods, and different potential pathways link each of these to migration.

In this article, we investigate the influence of material aspirations on domestic and international migration from Nepal. We provide a theoretical framework that integrates existing ideas about how financial resources influence migration and add a theoretical description of how material aspirations might independently influence migration. To theoretically disentangle the effects of material aspirations from resources, we rely heavily on the "ready, willing, and able" (RWA) framework developed by Coale (1973) and Lesthaeghe and Vanderhoeft (2001). We incorporate an improved empirical formulation that measures material aspirations explicitly and examines how variations in aspirations affect the decision to migrate and the destination of moves. We also investigate how these aspirations interact with expected financial returns at different locations to influence migration to those destinations.

Empirical testing of these ideas has been limited by available data, much of which does not include information on specific destinations of migrants. We achieve our empirical aims through an analysis of comprehensive detailed data from the Chitwan Valley Family Study (CVFS)—a panel study of a sample of Nepalis from 2008 through 2012. These data include extensive information: baseline survey measurements of material aspirations; earning potentials of migrants at possible destinations; and an extensive battery of demographic, socioeconomic, familial, and community information. The data also contain continuous monthly migration histories after the baseline, including specific domestic and international destinations. We use event history procedures with logistic, multinomial logit, and alternative-specific conditional logit regression models.

Our emphasis on aspirations might raise questions concerning the factors that impinge on the formation of aspirations, including the extent to which previous migration experience influences aspirations (Williams et al. 2014). Our focus, however, concerns the influence of aspirations on migration within a framework that controls, to the extent possible, factors influencing the formation of aspirations. Future research will need to investigate influences on aspirations. Such investigation of how aspirations are acquired, combined with results from this and other studies on how aspirations influence behavior, will provide new insights on how ideational factors are acquired, change, and interact with other factors to influence behavior.

Theoretical and Empirical Motivations

Readiness and Ability as Components of the Migration Decision

In our research, we build on existing migration theories on economic influences that have received strong empirical support from studies around the world (Donato 1993; Liang and White 1997; Lundquist and Massey 2005; Massey and Espinosa 1997; Massey et al. 1993, 1994; Reed et al. 2010; Ricketts 1987; Stark and Bloom 1985; Stark and Taylor 1991; Taylor 1987; Todaro and Maruszko 1987). Specifically, the empirical literature has extensively examined the effects of economic indicators, such as income and wealth, on migration behavior. These studies have generally found an inverted U-shape relationship between economic resources and migration, often finding a positive relationship at the lower end of the economic distribution but a negative relationship at the upper end of the distribution.

A relatively well-accepted explanation for this inverted U-shape relationship between migration and economic resources explains it as the result of two factors: ability and motivation (Bilsborrow et al. 1987; Du et al. 2005; VanWey 2005; Winters et al. 2001). The positive relationship at the lower end of the economic distribution is argued to result from the fact that people's ability to migrate increases as they have more resources. However, at some point in the distribution of resources, all people will have attained the ability to migrate, and more resources will not increase migration ability. The decline in migration with increasing economic resources is generally interpreted as being the result of increased economic resources increasing people's purchasing power, thereby fulfilling their desires and decreasing their motivations to migrate. That is, at the upper end of the income distribution, unfulfilled desires and motivations decline, and migration decreases.

We argue that this interpretation of the inverse U-shape relations between migration and economic resources fits well within the RWA framework formulated by Coale (1973) and Lesthaeghe and Vanderhoeft (2001)—a framework that has, to our knowledge, not been used to study migration but has been used successfully in other research. These researchers argued that for people to undertake new action, they must be *both* ready and able to undertake that action.¹ By *readiness*, Lesthaeghe and Vanderhoeft, meant that in order for people to undertake an action, they must see it as advantageous, with the expected positive outcome providing their motivation for the activity. Thus,

¹ The Lesthaeghe and Vanderhoeft (2001) framework included a third dimension: *willingness*. They indicated that this dimension "refers to considerations of legitimacy and normative (e.g., ethical, religious) acceptability of the new pattern of action" (pp. 240–241). This willingness dimension is important to consider when the new behavior is considered by some to be immoral, as it often is in the case of birth control, which was the main focus of Lesthaeghe and Vanderhoeft. We do not further discuss the willingness dimension here because morality is not a factor in migration decisions in Nepal or many other places around the world.

aspirations for additional material goods and the expectation that a geographical move will produce those goods are factors that make people ready to migrate. By *ability*, Lesthaeghe and Vanderhoeft meant that in order for people to undertake an action, they must have the necessary resources—such as money and technology—to achieve it. In addition to identifying readiness and ability as separate factors, the RWA framework further suggests that it is clearer to speak of, measure, and analyze the two separately. We do that by focusing our attention on the readiness (or motivation) factor while also taking into account the ability factor. We argue that both readiness and ability are not constant across individuals, with important implications for migration.

Material Aspirations and Expectations as Elements of Readiness

We further divide the readiness part of migration decision-making into two components: aspirations and expectations of gain at potential destinations. We conceptualize aspirations as including values about things that are good or important and favored over other items (Johnson-Hanks et al. 2011; Sewell 1992; Swidler 1986; Thornton et al. 2001). However, we follow Frye (2012) in suggesting that aspirations go beyond values to include elements of motivation, such as wanting or desiring something.

Many kinds of aspirations motivate people to migrate, including aspirations for material goods, better work conditions, more educational opportunities, better community amenities, being closer to family members, and more freedom. We focus our primary attention on material aspirations because the main theories of migration focus on money and the goods that can be purchased with money earned through migration. In addition, our data set focused on measuring material aspirations rather than other forms of aspirations.

We suggest that aspirations can exist at very specific and very general levels. Specific aspirations might include such things as a coat, a dress, a computer, indoor plumbing, or a car. At a more general level, people might have broader aspirations for material goods, a well-filled wallet, health, and prestige. Even more broadly, people might have generally materialistic orientations and aspire for more of everything—what might be thought of as a materialistic worldview. In this article, we conceptualize material aspirations at a general materialistic level but also consider a focus on specific material things.

The second part of readiness—migration expectations—refers to the gains that people anticipate from moving to a different place (De Jong 2000; De Jong et al. 1983, 1996). To be motivated to migrate, people must believe that migrating will allow them to meet their expected goals. De Jong and colleagues, as well as others, found empirical evidence in the Philippines, Thailand, the United States, and elsewhere that expectations of migration outcomes affect decisions to migrate (Bach and Smith 1977; Bjarnason and Thorlindsson 2006; Lee et al. 1994; South and Crowder 1997; Spear 1974; Thissen et al. 2010; van Dalen and Henkens 2013).

Although we conceptualize material aspirations and expectations for gain from migration as elements of the readiness component of migration, we consider the two elements separately. We focus our attention most sharply on material aspirations while also taking expectations into account. We argue that the greater the aspirations for material goods, the greater will be an individual's motivation to migrate. This leads to our first empirical hypothesis:

79

Hypothesis 1: People with higher aspirations for material goods will be more likely to migrate, *ceteris paribus*.

We also expect that material aspirations not only affect the decision to migrate but also influence the migration destination. Migration destinations can vary widely; some provide much higher salaries and access to material goods than the origin place, while other destinations have only minor benefits compared with the home place. Some destinations also require more effort and financial resources to get to. Thus, choice of destination often requires a trade-off between benefits (such as higher wages) and costs (such as financial costs, effort, and cultural differences). This leads to our second empirical hypothesis:

Hypothesis 2: People with higher aspirations for material goods will be more likely to migrate to places with substantially higher wages.

This hypothesis, thus, brings expectations for gains from migration directly into the analysis.

Our theory of material aspirations influencing migration is geographically nonspecific; it could be applied to any migration stream throughout the world. As one should with any behavioral theory, we consider the specific context in which we apply our theory to formulate appropriate empirical expectations. We now describe our study setting—western Chitwan Valley in south-central Nepal—and present context-specific empirical hypotheses regarding how material aspirations might influence Nepali migrants' destination choices.

Study Setting

Nepal's Chitwan Valley contains a mixture of the country's main caste/ethnic groups across both rural and urban areas. It has social, economic, and demographic attributes, including migration levels, that are very similar to other Nepali districts and the country as a whole (Central Bureau of Statistics 2012; Nepal South Asian Centre 1998). Although results from Chitwan cannot be extrapolated in a strict statistical sense to all Nepal or to the most urban or rural districts, Chitwan represents a middle position within the country, which makes our findings useful in considering migration patterns elsewhere in Nepal and in other countries.

Nepal has a long history of internal and international migration. With the control of malaria during the 1950s and improved transportation, the country experienced a significant growth in internal migration. Compared with international destinations, the common destinations within Nepal are the easiest to reach, the least expensive in terms of transportation, and the most similar socially and culturally.

For centuries, Nepalis have been migrating to India, with which Nepal shares a long and open border. In the early nineteenth century, Nepali youths were recruited as soldiers into the British Army in India (Gurung 1983; Rathaur 2001), and some young men still work in the British and Indian armies. Migration to India remains important because of its open border, sociocultural similarities to Nepal, and past migration connections. Travel to India does not require a visa or passport, has the leastexpensive transportation costs, and offers the most easily accessible jobs. In India, most jobs are low-paying and low-skilled, including positions such as security guards, agricultural laborers, and construction workers.

More international destinations opened in 1989 when the Nepali government promulgated legislation that licensed nongovernmental contracting agencies to recruit and assist Nepalese workers to migrate internationally (Kollmair et al. 2006; Thieme and Wyss 2005). Still more destinations opened up with new migration legislation and programs in the early 2000s. Nepalis are working in as many as 131 countries. Approximately 10 % of the population works abroad, with the percentage being much higher for young people and men (Government of Nepal 2013/2014; Sharma and Gurung 2009; World Bank 2009).

The major non-Indian international destinations are the Persian Gulf, East and Southeast Asia, Australia, Europe, and North America. Migration of Nepalis to Persian Gulf countries—primarily, Saudi Arabia, Qatar, and the United Arab Emirates—is almost as high as that to India (Ozaki 2012). Employment in these places generally involves unskilled labor and difficult working conditions.

Although migration to the wealthy countries of the West and Asia (hereafter, WWA) is more expensive, these countries are more desirable than India and the Persian Gulf in terms of wages and living and working conditions (Seddon et al. 2002). The most favored of these destinations in Asia are South Korea, Malaysia, and Japan; the favored destinations in the West are the countries of Western Europe, North America, and Australia.

Remittances from international migrants are very important elements of the Nepali economy; they accounted for roughly 29 % of Nepali GDP in 2014, with Nepal ranking the world's third largest in terms of remittance receipts per capita (World Bank 2016). Also, remittances in 2014/2015 were the third (17.6 %) most important source of a household's income after salary, wages, allowances, and pensions (30.3 %) and business income (24.4 %) (Nepal Rastra Bank 2016; see also Adhikari 2001; Bhandari 2016; Seddon et al. 2002). Bhandari and Chaudhary (2017) reported that remittance-receiving households use remittances for a wide variety of productive and consumptive purposes.

As shown in Table 1, the earnings that Nepalis receive vary substantially across different locations. Internal migration yields the least economic benefit, with the expected wages of people from Chitwan who moved within Nepal being only 24 % higher than wages in Chitwan. The expected wages of people from Chitwan who migrated to India are more than twice the expected wages in Chitwan. The expected wages of people from Chitwan in the Persian Gulf region were more than three times the wages in Chitwan, and well above wages elsewhere in Nepal and in India. Migrants to WWA countries earn significantly more than migrants to the Persian Gulf or India

Predicted Monthly Wage if Respondent:	Mean	SD	Min.	Max.
Stays in Chitwan	0.80	0.24	0.50	1.56
Migrates Within Nepal	0.99	0.29	0.62	2.60
Migrates to India	1.72	1.07	0.83	6.88
Migrates to Persian Gulf	2.52	0.66	1.74	4.69
Migrates to Wealthy Western and Asian Countries	4.42	3.04	2.90	26.22

 Table 1
 Predicted monthly wage (in 2008 U.S. dollars/1,000) by respondent migration destination

(Jones and Basnett 2013; Seddon et al. 1998). In fact, expected wages in WWA are five and a half times as large as wages in Chitwan.

We hypothesized earlier that higher material aspirations would increase migration generally and especially to high-income destinations. The attributes of the various migration destinations for Chitwan residents, particularly differences in wages, lead to the following specific hypothesis:

Hypothesis 3: The influence of material aspirations is especially large for migration to the relatively wealthy places in Europe, Australia, North America, and East and Southeast Asia, of medium magnitude in the Persian Gulf, and of modest magnitude for domestic and Indian migration.

Virtually no migration occurs from Chitwan to Africa or Central and South America, and thus we offer no hypotheses concerning a differential effect of material aspirations in those areas.

Data

Our data come from the 2008–2012 Chitwan Valley Family Study (CVFS), which sampled individuals aged 12–59 who were living in the western Chitwan Valley in 2008. Residents aged 15–59 in 2008 were interviewed for their baseline interviews in 2008. The baseline interviews for the residents aged 12–14 in 2008 were conducted when these individuals subsequently turned 15. The final sample comprises 4,415 individuals. The response rate for the initial baseline interview was 97 %.

Following the baseline interviews, all respondents who resided continuously in Chitwan or elsewhere in Nepal were reinterviewed thrice yearly through 2012, with 93 % interviewed in all waves. If a respondent moved internationally on or before June 2011, they were reinterviewed twice subsequent to their move, with a completion rate of 95 %. All respondents who migrated out of Chitwan (domestically or internationally) by June 2011 were asked about their migration experience after the baseline, providing the timing and destination of all moves.

The 2008–2012 CVFS also conducted thrice-yearly household-level interviews to obtain continuous demographic information, including residential location, about each of the original household members from the baseline interview through the end of 2012. Residential location was defined as the place where the person was living and eating most of the time during a given month. These data provided for each household member a continuous history with monthly precision of demographic events and changes, including residential moves to other districts within Nepal and to foreign countries. Very few households moved in their entirety, were lost to follow-up, or refused to provide information about household members. Thus, we have household reports of the residential locations of individuals through 49 months for 98 % of our original sample.

A comparison of the respondent and household informant reports of residential location reveals a high degree of consistency, with 98 % of respondents reporting the same migration outcome as their household members reported for them.

For our analyses, we use migration timing and residential location information obtained from the migrants themselves when it is available (94 % of the sample) and

otherwise from the household interviews. This gives us nearly complete migration information for 97 % of the original sample.

Defining Migration

The people at risk of migration in our analyses are Chitwan residents aged 15–59 when first interviewed in the baseline survey. Because ideational variables can change as a result of migration, we limit analyses to the first migration after the baseline interview. In our first analysis, we defined our dependent variable as any first migration out of Chitwan, with no differentiation among destinations. In our second analysis, we defined our dependent variable as first migration out of Chitwan, with the destinations divided into four categories: inside Nepal, India, the Persian Gulf, and the WWA countries.

The destinations categorized as the Persian Gulf were Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. We also included in this category a few destinations in the same general region as the Persian Gulf: Afghanistan, Iraq, Israel, and Lebanon. Migrants to these four countries accounted for 7 % of our migrants labeled as Persian Gulf migrants.

The primary international destinations in the WWA countries were Australia, the United Kingdom, the United States, Japan, Malaysia, South Korea, and Thailand, with these seven countries accounting for 86 % of migrants categorized as going to WWA countries. The remaining 14 % of the migrants to WWA countries were divided fairly evenly among Belgium, Belize, Canada, China, Finland, Germany, Iceland, Maldives, Poland, Portugal, and Spain. Although these countries categorized as WWA represent a wide range of geographical locations and cultures, all are quite culturally dissimilar from Nepal, and all are classified by the World Bank as upper-middle or high-income countries, justifying their grouping together for this analysis.

We did not decompose international destinations further because of limitations of sample sizes within these regions. Our regional groupings are both fine-tuned enough to provide distinct and meaningful migration streams and have large enough sample sizes to support analyses.

For our analyses, we treated as a migrant anyone who left Chitwan and resided in another geographic area for six months or more after the baseline interview. People who left Chitwan but returned prior to the six-month cutoff were not considered to be migrants. To test the sensitivity of our results to this definition of migration, we also conducted analyses with 1, 3, and 12 months as the minimum time away to define migration. Results were very similar across these specifications of migration, and we report those for only the six-month specification.

Table 2 provides estimates of the sample distribution across migration categories. Of the original baseline sample, 16 % subsequently migrated out of Chitwan for six months or more, distributed roughly equally between domestic and international migration. Dividing the migrant destinations more finely reveals that 2 % went to India, 4 % to the Persian Gulf, and 2 % to WWA destinations.

Material Aspirations

Our measures of material aspirations were ascertained at the baseline interview from a series of eight questions asking respondents to indicate how important eight items were

First Migration Destination (%)83.6No Move83.6Within Nepal8.5India2.3Persian Gulf3.5Wealthy Western and Asian Countries2.0Respondent Predictor Variable8.9Material aspirations (mean)8.9(2.8)(2.8)Respondent Demographic Characteristics (%)60.8Gender60.8Female60.8Male39.2Age at month of baseline (time-varying) ^{a,b} 15–1915–1927.720–2411.625–2910.730–349.835–399.540+30.7Caste statusBelongs to a disadvantaged caste (Dalit, Hill Janajati, Terai Janajati)49.0	n or Mean
Within Nepal 8.5 India 2.3 Persian Gulf 3.5 Wealthy Western and Asian Countries 2.0 Respondent Predictor Variable 2.0 Material aspirations (mean) 8.9	
India2.3Persian Gulf3.5Wealthy Western and Asian Countries2.0Respondent Predictor Variable2.0Material aspirations (mean)8.9(2.8)(2.8)Respondent Demographic Characteristics (%)60.8Gender60.8Female60.8Male39.2Age at month of baseline (time-varying) ^{a,b} 15–1915–1927.720–2411.625–2910.730–349.835–399.540+30.7Caste status5	
Persian Gulf3.5Wealthy Western and Asian Countries2.0Respondent Predictor Variable2.0Material aspirations (mean)8.9(2.8)(2.8)Respondent Demographic Characteristics (%) (2.8) Gender 60.8 Female 60.8 Male39.2Age at month of baseline (time-varying) ^{a,b} $15-19$ $15-19$ 27.7 $20-24$ 11.6 $25-29$ 10.7 $30-34$ 9.8 $35-39$ 9.5 $40+$ 30.7 Caste status 50.6	
Wealthy Western and Asian Countries2.0Respondent Predictor Variable8.9Material aspirations (mean)8.9(2.8)Respondent Demographic Characteristics (%)GenderFemale60.8Male39.2Age at month of baseline (time-varying) ^{a,b} 15–1927.720–2411.625–2910.730–349.835–399.540+30.7Caste status $$	
Respondent Predictor Variable Material aspirations (mean)8.9 (2.8)Respondent Demographic Characteristics (%) Gender60.8 39.2Female60.8 39.2Age at month of baseline (time-varying) ^{a,b} 7.7 20-2415–1927.7 20-2420–2411.6 25–2930–349.8 35–3935–399.5 30.7Caste status30.7	
Material aspirations (mean) 8.9 (2.8) Respondent Demographic Characteristics (%) Gender Female 60.8 Male 39.2 Age at month of baseline (time-varying) ^{a,b} 77 15–19 27.7 20–24 11.6 25–29 10.7 30–34 9.8 35–39 9.5 40+ 30.7 Caste status 11	
Image: definition of the section o	
Respondent Demographic Characteristics (%) Gender Female 60.8 Male 39.2 Age at month of baseline (time-varying) ^{a,b} 27.7 $15-19$ 27.7 $20-24$ 11.6 $25-29$ 10.7 $30-34$ 9.8 $35-39$ 9.5 $40+$ 30.7 Caste status 50.5	
Gender 60.8 Female 60.8 Male 39.2 Age at month of baseline (time-varying) ^{a,b} 27.7 15–19 27.7 20–24 11.6 25–29 10.7 30–34 9.8 35–39 9.5 40+ 30.7 Caste status 30.1	
Female 60.8 Male 39.2 Age at month of baseline (time-varying) ^{a,b} 27.7 $15-19$ 27.7 $20-24$ 11.6 $25-29$ 10.7 $30-34$ 9.8 $35-39$ 9.5 $40+$ 30.7 Caste status	
Male 39.2 Age at month of baseline (time-varying) ^{a,b} 7 15–19 27.7 20–24 11.6 25–29 10.7 30–34 9.8 35–39 9.5 40+ 30.7 Caste status 39.2	
Age at month of baseline (time-varying) ^{a,b} 27.7 15–19 27.7 20–24 11.6 25–29 10.7 30–34 9.8 35–39 9.5 40+ 30.7 Caste status 30	
15-19 27.7 20-24 11.6 25-29 10.7 30-34 9.8 35-39 9.5 40+ 30.7 Caste status 30.7	
20-24 11.6 25-29 10.7 30-34 9.8 35-39 9.5 40+ 30.7 Caste status	
25-29 10.7 30-34 9.8 35-39 9.5 40+ 30.7 Caste status 30.7	
30-34 9.8 35-39 9.5 40+ 30.7 Caste status 30.7	
35–39 9.5 40+ 30.7 Caste status 30.7	
40+ 30.7 Caste status	
Caste status	
Belongs to a disadvantaged caste (Dalit, Hill Janajati, Terai Janajati) 49.0	
Belongs to an advantaged caste (Brahmin-Chhetri, Newar) 51.0	
Family Characteristics	
Respondent: Ever married (time-varying) ^a (%) 65.0	
Number household members (time-varying) ^a (mean) 3.4	
(1.5)	
Respondent's work (%)	
Never worked 45.9	
Wage work only 34.9	
Any salary work 19.2	
Socioeconomic Characteristics	
Distance to Narayanghat (mean, in miles) 8.6	
(3.9)	
Respondent's schooling (time varying) ^a (%)	
No school 25.4	
1–5 years 15.5	
6–8 years 26.7	
9–10 years 14.6	
11+ years 17.9	

Table 2 Percentage distributions or means and standard deviations for respondents in Chitwan at the baseline interview who are at risk for migration (N = 4,415)

Table 2 (continued)

	% Distribution or Mean
Household resources (mean)	0.45
	(2.48)
Relative household resources (%)	
Lower third	24.4
Middle third	37.3
Upper third	38.3
Migration-Specific Capital	
Respondent has no migrations at age 15 to baseline interview (%)	62.8
Respondent has domestic migration only (%)	23.2
Respondent has any international migrations (%)	13.9
Logged % of household members migrating (time-varying) ^a (mean)	3.2
	(1.1)
Logged % of neighborhood members migrating (time-varying) ^a (mean)	3.7
	(0.30)

^a Frequency or mean in Table 2 is calculated from the value of the variable at respondent's baseline interview month.

^b Age for some young people was recorded as 14 or 15 in different reports. We categorized them here as age 15.

for them to have: radio, TV, VCR or DVD, motorcycle, gas stove, refrigerator, computer, and telephone. The wording of the eight questions was, "How important is it for you to have a (X) in your home?" Each variable was coded on a three-point scale ranging from 0 (not at all important) to 2 (very important). Of course, these eight items are only a subset of the total array of material things that a person could have and/or aspire for. A more complete list of items asked about or an alternative set of eight items might result in a somewhat different measure of aspirations.

We conceptualized material aspirations using these measures in two ways: (1) as a generalized indicator of material aspirations (materialism), and (2) as a specific indicator of unmet aspirations for the eight specific things. The general aspirations approach was supported by the fact that the eight variables correlated closely, forming a scale with excellent reliability; the coefficient alpha was .90, and the factor loadings in a one-factor analysis ranged from .64 to .78.

For our general aspirations scale, we added the eight variables, with the resulting values ranging from 0 to 16. Because this variable had very few people with scores below 6, we recoded it so that values of 0-5 were coded as 1, value 6 was coded as 2, value 7 was coded as 3, and so on, with the highest value (16) recoded to 12. The resulting scale has a mean of 8.9 and a standard deviation of 2.8 (see Table 2).

In our second conceptualization of material aspirations, we posited that when individuals were asked about the importance of the eight specific items, they focused only on the eight items and not material things more generally. Furthermore, this second conceptualization posited that even though respondents thought that an item was important, respondents who already possessed it would have no aspiration to obtain it. Thus, for this conceptualization for each item, we coded the unmet aspirations for that item as 1 if the respondent said that the item was important (or very important) and that the respondent's household did not have the item. We added the scores for each of the eight items into a scale of unmet aspirations ranging from 0 to 8, with a mean of 5.2 and a standard deviation of 1.9.

Expectations

We brought expectations of earnings at migration destinations into the analysis in two ways. First, we analyzed migration rates to multiple destinations, with the destinations having different levels of gain. Second, as described later, we conducted an alternativespecific conditional logit analysis that used an estimate of the wages that a Nepali person with a specific educational attainment could earn in different destinations. Although our focus on wage expectations at different destinations is parallel with our focus on material aspirations, we recognize that expectations about other aspects of destinations may be relevant.

Model Estimation

Our dependent variables—any migration, and migration destinations divided among Nepal, India, the Persian Gulf, and WWA—were specified as the rate of making a transition in residential location. We specified the dependent variable (Y) as a monthly hazard (H) of making the transition. Each person at risk of the transition was followed from the baseline interview until they experienced the transition or were censored because the observation period terminated. We estimated the hazard as a function of the predictors using logit regression and multinomial logit regression.

We analyzed the rates of migration using discrete-time multivariate event history models with person-months as the unit of analysis (Axinn and Thornton 1993; Massey et al. 2010a; Thornton and Rodgers 1987; Thornton et al. 1995; Williams 2009; Williams et al. 2012). Because the odds of migrating are so small within each one-month interval, the estimates from discrete-time methods are very similar to those that would be obtained using continuous-time models (Petersen 1991). Although using person-months of exposure to risk as the unit of analysis in discrete-time models substantially increases the sample size, it does not deflate standard errors, and thus provides appropriate tests of statistical significance (Allison 1984; Petersen 1986, 1991).

An important limitation of multinomial logit regression analyses is that although they can show the effects of material aspirations on migration rates to different locations, they cannot tell us the reasons for those effects. If the multinomial logit regression results are as hypothesized, we can infer that high-aspiration people are especially likely to go to high-income places where they expect to have attractive earning opportunities. However, such results would not test that directly because they do not explicitly take earning expectations at destinations into account. To directly evaluate the role of expected earning potential at each destination, we conducted a third analysis that used alternative-specific conditional logit to estimate equations for rates of migration to four places: within Nepal, India, the Persian Gulf, and WWA. Conditional logit regressions have been used to study domestic migration destinations within China and the United States (Liang and White 1997; White and Liang 1998) as well as other behavioral choices (Hoffman and Duncan 1988; Manski and Wise 1983; McFadden 1974; Powers and Xie 2008). Note that the conditional logit model differs from the conventional multinomial model in being more general: whereas a conventional multinomial model would give destination-specific coefficients for person-specific independent variables, a conditional logit model yields parsimonious, theoretically interpretable coefficients for predictors that vary by both individual and destination.²

In the alternative-specific conditional logit approach, we created five separate records for each of the 4,415 potential migrants: (1) a record for the no-migration option; or a record for (2) the internal Nepal option, (3) the India option, (4) the Persian Gulf option, or (5) the WWA option. For each of the five records for each respondent, we indicated a dichotomous variable for whether the person chose that option. We also indicated for each record the wages we expect that the person would receive if they chose that location. We estimated an alternative-specific conditional logit equation with these five records for each individual with the dependent variable coded as 1 if the person chose that location and 0 if the person chose a different location. We entered the variable *wages* as a predictor of the location choice, permitting us to estimate the extent to which individuals choose places with high wages. We also predicted location choice with individual material aspirations. In addition, we entered into the equation one interaction variable: the product of wages and material aspirations (wages × aspirations). This specification permits direct evaluation of the influence of material aspirations on location choices in conjunction with expected earnings.

We constructed our expected wage variable for each individual for each possible residential location based on the individual's education. The education- and location-specific wages were estimated from the actual reported earnings of a sample of Nepalis who had already migrated from the Chitwan Valley in 2008 (Ghimire et al. 2017). For each destination category, we estimated the median earnings for each level of education of Nepali migrants in that destination and then smoothed the earnings estimates to ensure a monotonic increase by education within each region. These education- and location-specific estimates were then assigned to the individuals in our study sample according to their observed education in 2008. We used 16 levels of education for each of the potential destinations, so that each individual was assigned 1 of 16 values based on his/her education. Because we did not have comparable earnings data for Chitwan itself, we used the incomes reported by migrants from Chitwan to a similar adjoining district (Nawalparasi). The average predicted monthly wage based on respondent education is shown for each migration destination type in Table 1.

Model Specification

Our study design predicting migration after the baseline with aspirations at the time of the baseline minimizes the possibility of reverse causation. We also controlled for many other factors that are theoretically related and have been empirically shown in this study area and elsewhere to have important influences on migration (Donato 1993; Harris and Todaro 1970; Massey 1990; Massey and Espinosa 1997; Massey et al. 2010b; Shrestha

 $[\]frac{1}{2}$ In conditional logit, individual-level variables can be included as interactions with destinations so that they can be nested with a conventional multinomial model. In other words, a conventional multinomial model can be rewritten as a conditional logit model but not vice versa.

et al. 1993; Stark and Bloom 1985; VanWey 2005; Williams 2009). Distributions of each predictor variable are shown in Tables 1 and 2.

Individual-level controls include gender (= 1 if female),³ caste/ethnicity (advantaged castes (Brahmin-Chhetri and Newar) vs. disadvantaged castes (Dalit, Hill Janajati, and Terai Janajati)), and nonfamily work experienced prior to the baseline interview (no nonfamily work, only wage work, or salary work). Several time-varying variables were included: age (coded in five-year increments), whether the respondent had ever been married, and school attainment (grades 1–5, 6–8, 9–10, and 11 plus years, compared with no schooling). At the household level, we included a time-varying control for the number of residents. At the community level, we included neighborhood proximity in miles to the urban center.

As discussed earlier, the decision to migrate involves not only readiness—as reflected in aspirations—but also the ability to migrate. To take into account the ability component, we controlled for household resources—a variable that is a composite of land ownership, livestock ownership, housing quality, and income. Each of these indicators provides partial measures of economic status and together provide a more comprehensive record. For each of these four measures, we logged the indicators to correct for skewness, calculated a z score for each of the logged variables, and then added the z scores.

We also controlled *relative* household wealth of the respondent's household by comparing the wealth of the respondent's household with the wealth of the households in the respondent's neighborhood. For this relative household wealth measure, respondents were divided into thirds (lower, middle, and upper third of relative household wealth).

Because our 2008 baseline data collection did not collect household resource information, we relied on a 2006 household survey that collected this information. Thus, household wealth and relative household wealth variables were not available for 10 % of the initial 2008 sample living in households that were not surveyed in 2006. We excluded this 10 % from our main analyses. However, to check the robustness of our findings, we conducted supplemental analyses that included them and used a categorical control for household resources—the four aforementioned categories plus a category for missing data. The results (not shown) were very similar to those we report for our analytical sample.

Empirical evidence has shown that migration-specific capital (i.e., personal migration experience and contacts with family or community members who have migrated previously) has a positive influence on whether an individual later migrates (Curran et al. 2005; Garip 2008; Massey 1990; Massey and Garcia España 1987). Our individual migration experience variable originated from histories of the respondent's own migration experience, from age 15 until one month prior to the baseline interview (no prior migration experience, domestic migration experience only, and international migration experience). We also controlled for the respondent's exposure to migrations (in or out) at the household level, coded as the logged cumulative percentage of household members who had migrated in and/or out of the household. Finally, we controlled for logged cumulative percentage of the respondent's neighborhood members who migrated.

³ As noted in Table 2, our sample is approximately three-fifths female, which is likely related to the substantially higher rate of out-migration for males.

Our sample includes multiple individuals from the same household and the same neighborhood, raising the possibility that this clustering increases the estimated standard errors over those that would be observed in a nonclustered sample. For this reason, in addition to estimating effects through standard logit, multinomial logistic, and conditional logit regression, we estimated effects for the logit and multinomial logit regressions using the GLIMMIX procedure in SAS, and the cluster option available in Stata's *asclogit* procedure for the conditional logit regression. The results from the two approaches were indistinguishable, and we report estimates from the regression techniques that take clustering into account.

Results

Table 3 provides estimated effects on our two sets of migration rates using logistic and multinomial logistic regression. Column 1 of Table 3 shows the estimated effects of predictor variables on any first migration after the baseline interview (ignoring the migration destination) using logistic regression. Columns 2–5 show the estimated multinomial effects of predictor variables on first migration, but with migrants divided into four destinations: Nepal, India, the Persian Gulf, and WWA. We transformed the coefficients into relative odds ratios by exponentiation of the original coefficients.

Table 3 shows, as hypothesized, that our indicator of general material aspirations has a positive and statistically significant effect on the migration rate. As shown in the first column, the coefficient for material aspirations is 1.05, meaning that each unit increase in material aspirations is associated with a 5 % increase in the rate of migration from Chitwan to any other destination. Because the material aspirations variable has a standard deviation of 2.8, individuals at 1 standard deviation above the mean have migration rates that are a substantial 31 % higher than those 1 standard deviation below the mean $(1.05^{5.6})$.

Columns 2–5 of Table 3 provide partial support for our international destinations hypothesis. As hypothesized, the estimated effect of material aspirations on migration to WWA is substantially larger than for any other destination. That is, each unit of increase in aspirations is associated with a 14 % increase in the migration rate to WWA, compared with a 3 % increase in the migration rate within Nepal, a 4 % increase in the migration rate to India, and a 5 % increase to the Persian Gulf. Thus, people who are 1 standard deviation above the mean of aspirations have migration rates to WWA countries that are approximately two times as large as those 1 standard deviation below the mean (1.14^{5.6}). However, we do not see substantial support for our hypothesis about the effects of material aspirations being stronger for the Persian Gulf than for domestic migration and for migration to India. Although the observed coefficients increase from Nepal to India to the Persian Gulf, the increase is from only 3 % to 5 %.

In a supplemental analysis, we estimated an equation with our unmet aspirations variable substituted for the general aspirations variable. The estimated effects of unmet aspirations are shown in Table 4.⁴ As shown in panel 1 of Table 4, the estimated

⁴ Results for control variables in Table 4, not shown, are indistinguishable from those in Table 3.

Table 3	Predicting first migrations of six months or longer from material aspirations and control variables
Odds rat	o estimates, logistic and multinomial logistic models, with z scores in parentheses

	Analysis 1	Analysis 2			
	Any Migration	Within Nepal	India	Persian Gulf	Wealthy Western and Asian Countries
Material Aspirations	1.05**	1.03†	1.04	1.05†	1.14*
	(2.93)	(1.40)	(1.03)	(1.49)	(2.25)
Respondent's Gender (female = 1)	0.45***	1.08	0.26***	0.07***	0.16***
	(8.81)	(0.65)	(5.19)	(9.87)	(6.42)
Respondent's Age (time-varying)					
15–19 (ref.)					
20–24	1.73***	1.25	1.59	5.94***	3.96***
	(4.85)	(1.51)	(1.58)	(5.69)	(3.34)
25–29	0.83	0.56**	0.44^{\dagger}	4.49***	1.63
	(1.11)	(2.44)	(1.68)	(3.81)	(0.94)
30–34	0.54***	0.36***	0.21**	2.83*	0.97
	(3.30)	(3.62)	(2.78)	(2.42)	(0.05)
35–39	0.33***	0.19***	0.17**	1.65	0.73
	(5.07)	(4.58)	(2.96)	(1.11)	(0.51)
40+	0.13***	0.19***	0.05***	0.21**	0.19**
	(9.83)	(5.72)	(5.00)	(3.13)	(2.69)
Caste Status					
Advantaged (ref.)					
Disadvantaged	0.96	0.83	1.24	1.14	0.91
-	(0.43)	(1.48)	(0.88)	(0.62)	(0.33)
Respondent Ever Married	0.77*	0.49***	0.75	1.24	2.33*
(time-varying)	(2.05)	(3.88)	(.81)	(0.81)	(2.51)
Total Number of Household Members (time-varying)	0.91** (2.91)	0.84*** (3.69)	0.87 (1.54)	1.08 (1.27)	0.88 (1.40)
Respondent's Work					
Never worked (ref.)					
Wage work only	1.16	1.12	1.64*	1.69*	0.46†
	(1.45)	(0.85)	(1.98)	(2.14)	(1.95)
Any salary work	1.20	1.24	0.88	1.48	0.47*
	(1.54)	(1.22)	(0.35)	(1.60)	(2.48)
Distance to Narayanghat (miles)	1.01	0.99	1.07*	1.06*	0.96
	(0.82)	(0.69)	(2.35)	(2.13)	(1.25)
Respondent's Schooling (time-varying)					
No school (ref.)					
1–5 years	1.85**	1.78*	2.34	1.57	1.71
-	(3.09)	(2.06)	(1.47)	(1.14)	(0.62)

	Analysis 1 Analysis 2				
	Any Migration	Within Nepal	India	Persian Gulf	Wealthy Western and Asian Countries
6–8 years	1.57*	1.33	1.94	1.76	2.56
	(2.28)	(1.03)	(1.14)	(1.39)	(1.18)
9–10 years	1.84**	1.92*	1.91	1.42	2.55
	(3.00)	(2.34)	(1.08)	(0.80)	(1.14)
11+ years	2.11***	2.14**	0.34	1.34	5.91*
	(3.67)	(2.73)	(1.24)	(0.67)	(2.25)
Household Resources	1.01	1.00	0.93	1.01	1.06
	(0.24)	(0.11)	(1.03)	(0.20)	(0.78)
Relative Household Resources					
Lower third (ref.)					
Middle third	1.01	0.96	1.07	1.17	0.92
	(0.11)	(0.20)	(0.23)	(0.65)	(0.21)
Upper third	1.01	0.94	1.34	0.94	1.01
	(0.04)	(0.28)	(0.78)	(0.18)	(0.03)
Respondent's Migration History From Age 15 to Baseline					
No migration (ref.)					
Domestic migration only	1.59***	1.99***	0.65	0.95	1.95*
	(3.93)	(4.39)	(0.79)	(0.19)	(2.22)
Any international migration	2.68***	1.38	7.49***	2.01**	3.43***
	(7.34)	(1.28)	(5.71)	(2.77)	(3.64)
Logged % Household Member	1.04	1.01	1.04	1.01	1.37*
Migration (time-varying)	(1.01)	(0.17)	(0.38)	(0.08)	(2.46)
Logged % Neighborhood Member Migration (time-varying)	1.03 (0.20)	1.24 (1.06)	1.68 (1.20)	0.76 (0.86)	0.96 (1.13)
Number of Person-Periods	192,598	192,598			

Table 3 (continued)

Note: For Analyses 1 and 2, the reference category is no migration.

 $^{\dagger}p < .10; *p < .05; **p < .01; ***p < .001$ (one-tailed test for Material Aspirations; two-tailed test for controls)

coefficients for the unmet aspirations variable are inconsistent in sign and, with the exception of the coefficient for within Nepal, are statistically insignificant. The contrast of these coefficients with those for the general aspirations measures in Table 3 indicates that this specification of aspirations is less predictive than the general aspirations indicator.

Panel 2 of Table 4 provides further evidence that it is general material aspirations rather than unmet aspirations—that are important influences on migration. In this panel, we examine the measure of general aspirations in an equation also containing a measure of the number of material goods owned by the household—with the material goods owned focusing on the exact same items as the things included in the material

Table 4 Supplemental analyses^a

	Analysis 1	Analysis 2							
	Any Migration	Within Nepal	India	Persian Gulf	Wealthy Western and Asian Countries				
1. Effects of Unmet Material Aspin	1. Effects of Unmet Material Aspirations (with control variables)								
Unmet material aspirations	0.97 (1.27)	0.95 [†] (1.64)	1.04 (0.63)	1.02 (0.44)	0.93 (1.02)				
2. Effects of Material Aspirations a	2. Effects of Material Aspirations and Number of Goods Owned (with control variables)								
Material aspirations	1.05**	1.03	1.04	1.05^{+}	1.13*				
	(2.83)	(1.21)	(1.02)	(1.52)	(2.09)				
Number of goods owned	1.06* (2.11)	1.07 [†] (1.95)	1.02 (0.27)	0.99 (0.23)	1.09 (1.23)				
3. Effects of Material Aspirations, (with control variables)	3. Effects of Material Aspirations, Household Resources, and Material Aspirations × Household Resources								
Material aspirations	1.05**	1.03†	1.02	1.04	1.11*				
	(2.88)	(1.28)	(0.58)	(1.25)	(1.80)				
Household resources	1.02*	1.06	1.15	1.10	0.74†				
	(0.29)	(0.64)	(0.89)	(0.72)	(1.42)				
Material aspirations × Household resources	0.99 (0.42)	0.99 (0.72)	0.98 [†] (1.46)	0.99 (0.89)	1.04* (1.81)				
4. Effects of Material Aspirations of (with control variables)	on Migration O	ver Differen	t Periods F	ollowing th	e Baseline Interview				
Material aspirations predicting migration (12 months)	1.02 (0.81)	1.00 (0.10)	1.04 (0.71)	1.02 (0.37)	1.09 (0.75)				
Material aspirations predicting migration (24 months)	1.04* (1.92)	1.03 (1.03)	1.06 (1.12)	1.01 (0.32)	1.13 [†] (1.13)				
Material aspirations predicting migration (36 months)	1.05** (2.48)	1.03 (1.03)	1.05 (1.12)	1.04 (1.13)	1.12 [†] (1.61)				
5. Effects of Material Aspirations f	for Men only (v	with control	variables)						
Material aspirations	1.06**	1.04	1.07^{+}	1.03	1.15*				
	(2.67)	(1.09)	(1.41)	(0.78)	(2.01)				
6. Effects of Material Aspirations, (with control variables)	Household Res	ources, and	Household	Resources	Squared				
Household resources	1.00	1.00	0.90†	0.98	1.07				
	(0.01)	(0.03)	(1.41)	(0.38)	(0.79)				
Household resources squared	1.00	1.00	0.88^{\dagger}	0.98^{\dagger}	1.00				
	(0.52)	(0.09)	(1.34)	(1.32)	(0.30)				
Household resources	0.99	1.00	0.90	0.97	1.06				
	(0.41)	(0.11)	(1.43)	(0.51)	(0.64)				
Household resources squared	1.00	1.00	0.98	0.98^{\dagger}	1.00				
	(0.49)	(0.09)	(1.34)	(1.36)	(0.19)				
Material aspirations	1.05**	1.03†	1.04	1.05†	1.14*				
	(3.04)	(1.40)	(1.04)	(1.52)	(2.24)				

	Analysis 1	Analysis	2		
	Any Migration	Within Nepal	India	Persian Gulf	Wealthy Western and Asian Countries
7. Effects of Material Aspirat (with control variables)	ions and Categorical	Indicators of	of Househo	ld Resource	S
Household resources					
Low (ref.)					
Medium low	0.93	0.82	1.25	1.20	0.98
	(0.51)	(1.05)	(0.69)	(0.62)	(0.04)
Medium high	0.79^{\dagger}	0.74^{+}	0.87	0.92	0.98
	(1.43)	(1.33)	(0.34)	(0.23)	(0.03)
High	1.02	0.92	0.80	0.94	2.38 [†]
	(0.12)	(0.33)	(0.42)	(0.15)	(1.34)
Household resources					
Low (ref.)					
Medium low	0.92	0.82	1.24	1.20	0.99
	(0.59)	(1.10)	(0.65)	(0.62)	(0.02)
Medium high	0.78^{+}	0.73†	0.85	0.92	0.99
	(1.55)	(1.40)	(0.39)	(0.25)	(0.02)
High	0.99	0.90	0.78	0.91	2.22
	(0.05)	(0.40)	(0.47)	(0.21)	(1.23)
Material aspirations	1.05**	1.03†	1.04	1.05†	1.12*
	(2.99)	(1.44)	(1.00)	(1.51)	(2.02)

^a The equations in this table include the same control variables used in the equations reported in Table 3, with very similar coefficients.

 $^{\dagger}\!p < .10; \ ^{*}\!p < .05; \ ^{**}\!p < .01; \ ^{***}\!p < .001$

aspirations measure. In this equation, the estimated effects of material aspirations on migration remain almost identical to those observed in Table 3, while the estimated effects of number of goods owned are uniformly positive, with the exception of migration to the Persian Gulf. This suggests that instead of goods ownership satiating aspirations and decreasing motivation to leave Chitwan, it increases migration, especially to WWA.

Note also the positive correlation between the number of goods owned and material aspirations in that people who place more value on material goods have more of those goods. The correlation between the two measures is .25.

It might be argued that material aspirations and household resources operate interactively to affect migration, with greater resources allowing individuals with high aspirations to implement those aspirations through migration. We investigated this possibility in a supplemental analysis by adding to the main equations of Table 3 an interaction term between aspirations and resources. As shown in panel 3 of Table 4, the material aspirations coefficients in this equation are very

similar to those in Table 3. Contrary to our expectations, only one of the interaction effects is positive, and that is for WWA. This result suggests that when both household resources and material aspirations are high, rates of migration to WWA countries are high. However, high household resources do not seem to positively modify the effects of high material aspirations generally or to other specific destinations.

In other supplemental analyses, we investigated the possibility that material aspirations can change for individuals across time, with aspirations measured at the baseline being more relevant for migration soon afterward but not for later. We estimated models that used aspirations at the baseline to predict migration within the next 12, 24, and 36 months. As shown in panel 4 of Table 4, those results demonstrate no general pattern of coefficients being greater when the period of analysis following the baseline is shorter. Instead, the estimated results in these three estimations are similar to each other and similar to those from our original 48-month period reported in Table 3. These results suggest that material aspirations and their effects likely do not change greatly over short periods.

In addition to conducting analyses for the total sample of women and men, we conducted a separate analysis only for men to test the possibility that the effects differed by gender. We did not, however, conduct separate analyses for women only because the small number of female migrants limited sampling reliability. As shown in panel 5 of Table 4, the estimates for material aspirations in the logistic and multinomial logistic equations for males are very similar to those for the total sample.

Our analyses to this point have controlled for an interval-level measure of household resources without taking into account the expected curved relationship between resources and migration. Additional supplemental analyses introduced more sophisticated controls for household resources. In our first such supplemental analysis (reported in panel 6 of Table 4), we estimated an equation with both household resources and household resources squared in the equation, along with material aspirations. In our second such supplemental analysis (panel 7 of Table 4), we estimated an equation with material aspirations and household resources constructed as four categorical indicators: (1) low (1 or more standard deviations below the mean), (2) medium-low (between the mean and 1 standard deviation below the mean), (3) medium-high (between the mean and 1 standard deviation above the mean, and (4) high (1 or more standard deviations above the mean). In both of these supplemental analyses, the estimated effects of material aspirations are nearly identical in equations that include curvilinear indicators of household resources and those including only a linear indicator of household resources.

The results reported in panels 6 and 7 of Table 4 do not support the expected inverse U-shaped relationship between household resources and migration. For overall migration and for migration in Nepal, neither household resources nor household resources squared has a significant effect. The coefficients suggest that household resources might have an overall negative effect on migration to India and the Persian Gulf and that this negative effect is stronger at higher levels of resources. And, for the WWA countries, household resources have a consistent positive effect on migration to these countries. Similarly, the results of our categorical indicator of household resources also do not support the inverse U-shaped relationship. These results are similar with and without material aspirations in the equations. We do not interpret these results as negating the influence of household resources on migration, but instead as suggesting

that in this setting and with our measures household resources seem to have little effect—either linear or curvilinear—on migration. Additional research will be needed concerning this relationship.

Although our results consistently suggest that material aspirations affect migration destinations, they do not indicate why. To address this question, we shifted from multinomial regression to alternative-specific conditional logit analysis. The outcome variable for this analysis was the destination location of the original baseline respondents—a choice between staying in Chitwan and moving to one of the four locations outside Chitwan. We added to our independent variables expected wages and the product of the wages and material aspirations variables (wages \times material aspirations). Because the coefficients for these two variables apply to all location choices, their coefficients in the alternative-specific conditional logit analysis are shown in a separate column in the first two rows of Table 5. We used the same control variables as in the multinomial regression analyses shown in Table 3. In addition to the predictor variables shown in Table 3, we included destination-specific coefficients to capture the magnitude of the destinationspecific flows (not shown in table) not captured by the main effect of the wages variable.

It is important that we interpret the wages variable and the wages \times material aspirations variable together because they represent the interaction of wages and material aspirations. We start by interpreting the results as indicating how the choice of places with high wages varies by aspirations. In this perspective, the coefficient for the wages variable represents the effect of expected wages at the location on choosing a location when material aspirations, as measured by our indicator, are 0. This coefficient is .85, which means that when material aspirations are 0, each unit of expected wages reduces the odds of choosing a location by 15 %. However, the coefficient for the wages \times material aspirations, the effect of expected wages increases by 2 %. These findings suggest that material aspirations and expected wages work together to influence migration decisions, so that as people's aspirations increase, they are increasingly attracted to high-wage destinations.

To help with interpretation, we prepared Table 6 to show the effect of expected wages at each level of material aspirations. The column of coefficients indicates the effects of expected wages at different levels of material aspirations for the analysis of Table 5. These results indicate that the negative effect of expected wages at low levels of material aspirations switches to a positive wages effect when material aspirations become quite high. The crossover point from estimated negative to estimated positive effects occurs at approximately 7 units of material aspirations. The positive effect becomes substantial at 12 units of material aspirations: we find a 12 percentage point increase with each unit of expected wages.

These results thus indicate that high expected wages at a place attract people only when those people have high material aspirations. Put another way, it is those individuals with very high material aspirations who are choosing the locations with high expected wages, and it is those individuals with low aspirations for material consumption who are choosing the locations with low wages. This pattern fits our original hypothesis in suggesting that people with higher aspirations are attracted by higher expected wages in a destination.

To this point, our interpretation of the data in Tables 5 and 6 suggests that the effects of expected wages depend on the level of material aspirations. However, we can

Table 5Predicting migration destinations for first migrations of six months or longer from material aspirations and control variables: Odds ratio estimates for alternative-specific conditional logit models, with z scores in parentheses

		Analysis 3				
		Within Nepal	India	Persian Gulf	Wealthy Western and Asian Countries	
Destination-Specific Wages at Destination	0.849		·			
	(1.18)					
Wages × Material Aspirations	1.023*					
	(1.75)					
Material Aspirations		1.04†	1.02	1.04	1.04	
		(1.55)	(0.36)	(0.86)	(0.36)	
Respondent Gender (female $= 1$)		1.16	0.28***	0.07***	0.18***	
L		(1.02)	(4.65)	(8.10)	(5.55)	
Respondent Age (time-varying)		. ,	. ,	. ,	. ,	
15–19 (ref.)						
20–24		1.00	1.14	3.75***	2.98*	
		(0.01)	(0.41)	(3.52)	(2.33)	
25–29		0.42**	0.35*	3.54**	1.32	
		(2.98)	(2.07)	(2.83)	(0.54)	
30–34		0.21***	0.12***	1.42	0.57	
		(4.95)	(3.91)	(0.77)	(1.05)	
35–39		0.10***	0.08***	0.76	0.38	
		(6.11)	(4.21)	(0.55)	(1.48)	
40+		0.08***	0.01***	0.07***	0.08***	
		(7.52)	(6.28)	(5.05)	(3.85)	
Caste Status			· /	× /		
Advantaged (ref.)						
Disadvantaged		0.64**	0.98	0.87	0.79	
e e e e e e e e e e e e e e e e e e e		(2.77)	(0.08)	(0.64)	(0.75)	
Respondent Ever Married (time-varying)		0.44***	0.67	1.03	1.84†	
		(3.78)	(1.18)	(0.07)	(1.68)	
Total Number of Household		0.97	0.98	1.19**	0.99	
Members (time-varying)		(0.59)	(0.20)	(2.66)	(0.08)	
Respondent's Work						
Never worked (ref.)						
Wage work only		1.10	1.60^{+}	1.74*	0.47*	
		(0.75)	(1.79)	(2.23)	(2.29)	
		· /				
Any salary work		1.70**	0.81	1.74^{+}	0.51†	
Any salary work			0.81 (0.55)	1.74 [†] (1.79)	0.51 [†] (1.75)	
Any salary work Distance to Narayanghat (miles)		1.70**				

		Analysis 3				
		Within Nepal	India	Persian Gulf	Wealthy Western and Asian Countries	
Respondent's Schooling (time-varying)						
No school (ref.)						
1-5 years		1.48	2.00	1.56	1.51	
		(1.31)	(1.17)	(0.97)	(0.45)	
6–8 years		1.31	2.09	1.56	2.35	
		(0.94)	(1.33)	(0.87)	(1.13)	
9–10 years		1.38	1.27	0.95	1.82	
		(1.03)	(0.41)	(0.09)	(0.71)	
11+ years		1.01	0.55	0.66	2.32	
		(0.02)	(1.00)	(0.84)	(1.04)	
Household Resources		1.04	0.96	1.03	1.10	
		(0.87)	(0.68)	(0.41)	(1.31)	
Relative Household Resources						
Lower third (ref.)						
Middle third		0.92	1.12	1.14	0.88	
		(0.41)	(0.33)	(0.37)	(0.34)	
Upper third		0.86	1.33	0.86	0.97	
		(0.58)	(0.72)	(0.33)	(0.07)	
Respondent's Migration History From Age 15 to Baseline						
No migration (ref.)						
Domestic migration only		3.07***	0.92	1.54	2.79**	
		(5.78)	(0.15)	(1.30)	(3.28)	
Any international migration		2.25**	16.6***	4.10***	7.06***	
		(3.08)	(6.96)	(4.99)	(5.57)	
Logged % Household Member Migration (time-varying)		1.02 (0.36)	1.08 (0.71)	0.96 (0.48)	1.35* (2.19)	
Logged % Neighborhood Member Migration (time-varying)		0.44** (2.89)	0.53 (1.55)	0.37** (2.79)	0.31*** (3.29)	
Number of Person-Periods	21,965					
Number of Cases	4,393					

 Table 5 (continued)

 $^{\dagger}p < .10$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$ (one-tailed test for Material Aspirations, Wages at Destination, and Wages × Aspirations; two-tailed test for controls)

interpret the results somewhat differently—that the effects of material aspirations depend on the level of expected wages. Taking this perspective, Table 5 suggests that when wages are at 0, there is a positive effect of material aspirations on every type of destination, but this effect is statistically significant only for domestic migration. In

Value of Material Aspiration	Odds Ratio Coefficient
1	0.87
2	0.89
3	0.91
4	0.93
5	0.95
6	0.97
7	1.00
8	1.02
9	1.04
10	1.06
11	1.09
12	1.12

 Table 6
 Effects of wages at levels of aspirations: Odds ratio coefficients from alternative-specific conditional logit models

addition, the positive interaction term suggests that as wages increase, the effect of material aspirations increases. These results are consistent with our earlier interpretations that aspirations and wages combine to affect migration decisions and destinations.

As another indicator of the magnitude of the effect of the interaction of wages and aspirations, consider that the wage variable ranges from 0.5 to 26.2 (a range of more than 25 units), and the aspirations variable ranges from 1 to 12 (a range of 11 units). Because these two variables are multiplied together, the full range of the wages \times material aspirations is exceptionally large. Thus, the estimated interaction effect of a 2 % increase in choosing a location *per unit* of the interaction variable over the whole range of the interaction variable is very large and important for migration outcomes.

Conclusions

We began this article with the observation that the decision to migrate requires that an individual be both ready and able to undertake the migration. We discussed aspirations for a higher standard of living, including additional material goods, and expectations of gain coming from the migration as important components of the motivation or readiness to migrate. We also discussed the ability to migrate being influenced greatly by the amount of resources, such as money and technology, available to a person.

Although this basic model of aspirations, expectations, and resources has motivated much past migration research, the empirical support for the framework has been derived primarily from previous studies finding an inverted U-shape relationship between economic resources and migration. Such studies have shown generally a positive relationship with migration at the lower end of the economic resources distribution but a negative relationship at the upper end of the distribution. This inverted U-shape relationship has been interpreted as reflecting increased resources at the low end of the economic distribution increasing ability to migrate and the increased satisfaction of aspirations at the upper end decreasing readiness to migrate.

We improved on this empirical formulation and testing by measuring material aspirations explicitly and examining how variations in aspirations affect the decision to migrate and the destination of any move. At the same time, we took into account expected income at possible migration destinations. We also explicitly took into account the ability of individuals to move, as indicated by the economic resources available to them.

Our empirical tests of these hypotheses in the Chitwan Valley of Nepal are generally consistent with our hypotheses. We found strong evidence that material aspirations have large effects on overall rates of migration and affect each of the destinationspecific migration rates. Also, as hypothesized, the effects of material aspirations are stronger for international migration than for domestic migration and strongest for the WWA destinations. Furthermore, these estimated effects are substantial. We did find, as hypothesized, that the estimated effect of material aspirations on migration to Persian Gulf places is intermediate between the effects for WWA and the effects for India and domestic places, but the effect for the Persian Gulf destinations is much closer to the effect for India than that for WWA. This might be partially because migrant wages in the Persian Gulf are closer to Indian wages than to wages in WWA.

Our results also suggest that it is general material aspirations—or materialism rather than unmet aspirations for specific material items that influence out-migration. General material aspirations consistently have a positive effect on migration, whereas unmet aspirations for specific items do not.

Results from our alternative-specific conditional logit analyses are consistent with our prediction that expected wages at locations are important elements in this process. High expected wages in a location attract people, as theories of migration predict. However, we found that it is only people with high aspirations who are drawn to relocate to places with higher earning potential. In other words, high-wage places attract people with high aspirations. This explains why high aspirations people are overrepresented in certain migration streams and why these people are the ones who migrate to high-income places, such as WWA locations.

Our analyses thus provide solid support for the idea that ideational factors are important influences on migration decision-making in Nepal. The ideational component included in this study—material aspirations—influences both the decision to migrate and where to migrate. Material aspirations in Nepal also interact with both household resources and expected wages at destinations to influence migration. Of course, the generalizability of our results is limited by the fact that our data are limited in geographical scope. Nevertheless, we believe that our approach and findings are widely applicable to other settings around the world. In addition, as we noted earlier, many different kinds of aspirations can motivate people to migrate, but our analyses have focused only on material aspirations. This restriction was imposed by the lack of measures of other types of aspirations.

Even with our focus just on Nepal and one type of aspiration, we view this study as contributing theoretically grounded empirical evidence that at least one ideational factor—material aspirations—has an influence on migration behavior. Thus, we add migration to the continually expanding list of demographic and social behaviors that are influenced by ideational factors. Further, for migration studies in particular, previous literature on material circumstances has sometimes conflated material resources with the desire for such resources. In this study, guided by the RWA framework, we show that variation in material aspirations affects migration differently from resources, contributing new insights to the role of material circumstances in general to migration. We look forward to additional research testing this relationship in other places and to extensions of this to other types of aspirations, motivations, or ideational factors.

Acknowledgments We thank Christine Bachrach, Katharine Donato, Douglas Massey, and Michael White for their helpful advice and comments on an earlier version of this article. Also appreciated is the input from anonymous reviewers. We also appreciate the research support provided by a grant (R01 HD078397) from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD). Our research was also supported by NICHD research grants (R24 HD041028 and P2CHD041028) to the Population Studies Center of the University of Michigan and by an NICHD research infrastructure grant (R24 HD042828) to the Center for Studies in Demography and Ecology at the University of Washington. The content of this article is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

References

- Adhikari, J. (2001). Mobility and agrarian change in central Nepal. *Contributions to Nepalese Studies, 28,* 247–267.
- Allendorf, K., & Thornton, A. (2015). Caste and choice: The influence of developmental idealism on marriage behavior. American Journal of Sociology, 121, 243–287.
- Allison, P. D. (1984). Event history analysis: Regression for longitudinal event data. Beverly Hills, CA: Sage Publications.
- Axinn, W. G., & Thornton, A. (1993). Mothers, children, and cohabitation: The intergenerational effects of attitudes and behavior. *American Sociological Review*, 58, 233–246.
- Bach, R. L., & Smith, J. (1977). Community satisfaction, expectations of moving, and migration. Demography, 51, 3–55.
- Bachrach, C. A. (2014). Culture and demography: From reluctant bedfellows to committed partners. Demography, 51, 3–25.
- Bachrach, C. A., & Morgan, S. P. (2013). A cognitive-social model of fertility intentions. *Population and Development Review*, 39, 459–485.
- Bhandari, P. (2016). Remittance received by households of western Chitwan Valley, Nepal: Does migrant's destination make a difference? *Dhaulagiri Journal of Sociology and Anthropology*, 10, 1–36.
- Bhandari, P., & Chaudhary, I. (2017). A calendar method of collecting remittance use data in a remittance dependent setting of Nepal. *Migration and Development*, 6, 177–197.
- Bilsborrow, R. E., McDevitt, T. M., Kossoudji, S., & Fuller, R. (1987). The impact of origin community characteristics on rural-urban out-migration in a developing country. *Demography*, 24, 191–210.
- Bjarnason, T., & Thorlindsson, T. (2006). Should I stay or should I go? Migration expectations among youth in Icelandic fishing and farming communities. *Journal of Rural Studies*, 22, 290–300.
- Central Bureau of Statistics. (2012). National Population and Housing Census 2011–National report. Kathmandu: National Planning Commission Secretariat, Government of Nepal.
- Coale, A. J. (1973). The demographic transition reconsidered. In *Proceedings of the International Population Conference, Liege, 1973* (pp. 53–57). Liege, Belgium: International Union for the Scientific Study of Population.
- Curran, S. R., Garip, F., Chung, C. Y., & Tangchonlatip, K. (2005). Gendered migrant social capital: Evidence from Thailand. Social Forces, 84, 225–255.
- De Jong, G. F. (2000). Expectations, gender, and norms in migration decision-making. *Population Studies, 4,* 307–319.

- De Jong, G. F., Abad, R. G., Arnold, F., Carino, B. V., Fawcett, J. T., & Gardner, R. W. (1983). International and internal migration decision-making: A value-expectancy based analytical framework of intentions to move from a rural Philippine province. *International Migration Review*, 17, 470–484.
- De Jong, G. F., & Fawcett, J. T. (1981). Motivations for migration: An assessment and a value-expectancy research model. New York, NY: Pergamon Press.
- De Jong, G. F., Richter, K., & Pimonpan, I. (1996). Gender, values, and intentions to move in rural Thailand. *International Migration Review*, 30, 748–770.
- Donato, K. M. (1993). Current trends and patterns in female migration: Evidence from Mexico. International Migration Review, 27, 748–771.
- Du, Y., Park, A., & Wang, S. (2005). Migration and rural poverty in China. Journal of Comparative Economics, 33, 688–709.
- Esteve, A., Lesthaeghe, R., & Lopez-Gay, A. (2012). The Latin American cohabitation boom, 1970–2007. Population and Development Review, 38, 55–81.
- Frye, M. (2012). Bright futures in Malawi's new dawn: Educational aspirations as assertions of identity. American Journal of Sociology, 117, 1565–1624.
- Garip, F. (2008). Social capital and migration: How do similar resources lead to divergent outcomes? *Demography*, 4, 591–617.
- Ghimire, D. J., Williams, N. E., Thomton, A., Young-DeMarco, L., & Bhandari, P. (2017). Strategies for origin-based surveying of international migrants. *Journal of Ethnic and Migration Studies*. Advance online publication. https://doi.org/10.1080/1369183X.2017.1394178
- Government of Nepal. (2013/2014). Labour migration for employment: A status report for Nepal: 2013/2014. Kathmandu: Department of Foreign Employment, Ministry of Labour and Employment, Government of Nepal.
- Gurung, H. B. (1983). Internal and international migration in Nepal. Kathmandu, Nepal: HMG Population Commission.
- Harris, J. R., & Todaro, M. P. (1970). Migration, unemployment and development: A two-sector analysis. American Economic Review, 60, 126–142.
- Hoffman, S. D., & Duncan, G. J. (1988). Multinomial and conditional logit discrete-choice models in demography. Demography, 25, 415–427.
- Johnson-Hanks, J. A., Bachrach, C. A., Morgan, S. P., Kohler, H.-P., & Hoelter, L. (2011). Understanding family change and variation: Toward a theory of conjunctural action. London, UK: Springer Verlag.
- Jones, H., & Basnett, Y. (2013). Foreign employment and inclusive growth in Nepal. What can be done to improve impacts for the people and the country? London, UK: Overseas Development Institute.
- Kirk, D. S., & Papachristos, A. V. (2011). Cultural mechanisms and the persistence of neighborhood violence. American Journal of Sociology, 116, 1190–1233.
- Kollmair, M., Manandhar, S., Subedi, B., & Thieme, S. (2006). New figures for old stories: Migration and remittances in Nepal. *Migration Letters*, 3, 151–160.
- Lee, B. A., Oropesa, R. S., & Kanan, J. W. (1994). Neigborhood context and residential mobility. Demography, 31, 249–270.
- Lesthaeghe, R., & Vanderhoeft, C. (2001). Ready, willing, and able: A conceptualization of transitions to new behavioral forms. In J. B. Casterline (Ed.), *Diffusion processes and fertility transition: Selected perspectives* (pp. 240–264). Washington, DC: National Academies Press.
- Liang, Z., & White, M. J. (1997). Market transition, government policies, and interprovincial migration in China 1980–88. Economic Development and Cultural Change, 45, 321–339.
- Lundquist, J. H., & Massey, D. S. (2005). Politics or economics? International migration during the Nicaraguan Contra War. *Journal of Latin American Studies*, 37, 29–53.
- Manski, C. F., & Wise, D. A. (1983). College choice in America. Cambridge, MA: Harvard University Press.
- Massey, D. S. (1990). Social structure, household strategies, and the cumulative causation of migration. *Population Index*, 56, 3–26.
- Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1993). Theories of international migration: A review and appraisal. *Population & Development Review*, 19, 431–466.
- Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1994). An evaluation of international migration theory: The North American case. *Population & Development Review*, 20, 699– 751.
- Massey, D. S., Axinn, W. G., & Ghimire, D. J. (2010a). Environmental change and out-migration: Evidence from Nepal. *Population and Environment*, 32, 109–136.
- Massey, D. S., & Espinosa, K. E. (1997). What's driving Mexico-U.S. migration? A theoretical, empirical, and policy analysis. *American Journal of Sociology*, 102, 939–999.

- Massey, D. S., & Garcia España, F. (1987). The social process of international migration. Science, 237, 733– 738.
- Massey, D. S., Williams, N., Axinn, W. G., & Ghimire, D. (2010b). Community services and out-migration. *International Migration*, 48(3), 1–41.
- McFadden, D. (Ed.). (1974). Conditional logit analysis of qualitative choice behavior. New York, NY: Academic Press.
- Miles, A. (2015). The (re)genesis of values: Examining the importance of values for action. American Sociological Review, 80, 680–704.
- Nepal Rastra Bank. (2016). Fifth Household Budget Survey 2014/15. Kathmandu: Nepal Rastra Bank.
- Nepal South Asian Centre. (1998). Nepal human development report 1998. Kathmandu: Nepal South Asia Centre.
- Ozaki, M. (2012). Worker migration and remittances in South Asia (ADB South Asia Working Paper Series No. 12). Manilla, Phillipines: Asian Development Bank.
- Petersen, T. (1986). Estimating fully parametric hazard rate models with time-dependent covariates: Use of maximum likelihood. Sociological Methods & Research, 14, 219–247.
- Petersen, T. (1991). The statistical analysis of event histories. Sociological Methods & Research, 19, 270-323.
- Powers, D. A., & Xie, Y. (2008). Statistical methods for categorical data analysis. Bingley, UK: Emerald Group Publishing Limited.
- Rathaur, K. R. S. (2001). British Gurkha recruitment: A historical perspective. Voice of History, 16(2), 19-24.
- Reed, H. E., Andrzejewski, C. S., & Whie, M. J. (2010). Men's and women's migration in coastal Ghana: A event history analysis. *Demographic Research*, 22(article 25), 771–812. https://doi.org/10.4054 /DemRes.2010.22.25
- Ricketts, E. (1987). U. S. investment and immigration from the Caribbean. Social Problems, 34, 374–387.
- Seddon, D., Adkhikari, J., & Gurung, G. (2002). Foreign labor migration and the remittance economy of Nepal. Critical Asian Studies, 34, 157–173.
- Seddon, D., Gurung, G., & Adhikari, J. (1998). Foreign labour migration and the remittance economy of Nepal. *Himalaya*, 18(2), 3–10.
- Sewell, W. H. (1992). A theory of structure: Duality, agency, and transformation. American Journal of Sociology, 98, 1–29.
- Sharma, J., & Gurung, G. (2009). Impact of global economic slowdown on remittance inflows and poverty reduction in Nepal. Mandikhatar, Kathmandu, Nepal: Institute for Integrated Development Studies (IIDS).
- Shrestha, N. R., Velu, R. P., & Conway, D. (1993). Frontier migration and upward mobility: The case of Nepal. Economic Development and Cultural Change, 41, 787–816.
- South, S. J., & Crowder, K. D. (1997). Escaping distressed neighborhoods: Individual, community, and metropolitan influences. *American Journal of Sociology*, 102, 1040–1084.
- Spear, A. (1974). Residential satisfaction as an intervening variable in residential mobility. *Demography*, 11, 173–188.
- Stark, O., & Bloom, D. E. (1985). The new economics of labor migration. American Economic Review: Papers & Proceedings, 75, 173–178.
- Stark, O., & Taylor, J. E. (1991). Migration incentives, migration types: The role of relative deprivation. *Economic Journal*, 101, 1163–1178.
- Swidler, A. (1986). Culture in action: Symbols and strategies. American Sociological Review, 51, 273–286.
- Taylor, J. E. (1987). Undocumented Mexico–U.S. migration and the returns to households in rural Mexico. American Journal of Agricultural Economics, 69, 629–638.
- Thieme, S., & Wyss, S. (2005). Migration patterns and remittance transfer in Nepal: A case study of Sainik Basti in Western Nepal. *International Migration*, 43(5), 59–98.
- Thissen, F., Droogleever Fortuijn, J., Strijker, D., & Haartsen, T. (2010). Migration intentions of rural youth in the Westhoek Flanders, Belgium and the Veenkoloniën, the Netherlands. *Journal of Rural Studies*, 26, 428–436.
- Thornton, A., Axinn, W. G., Fricke, T., & Alwin, D. F. (2001). Values and beliefs in the lives of children and families. In A. Thornton (Ed.), *The well-being of children and families: Research and data needs* (pp. 215–243). Ann Arbor: University of Michigan Press.
- Thornton, A., Axinn, W. G., & Teachman, J. D. (1995). The influence of school enrollment and accumulation on cohabitation and marriage in early adulthood. *American Sociological Review*, 60, 762–774.
- Thornton, A., & Rodgers, W. L. (1987). The influence of individual and historical time on marital dissolution. Demography, 24, 1–22.
- Todaro, M. P., & Maruszko, L. (1987). Illegal migration and U.S. immigration reform: A conceptual framework. *Population & Development Review*, 13, 101–114.

- Vaisey, S. (2009). Motivation and justification: A dual-process model of culture in action. American Journal of Sociology, 114, 1675–1715.
- van Dalen, H. P., & Henkens, K. (2013). Explaining emigration intentions and behaviour in the Netherlands, 2005–10. Population Studies, 67, 225–241.
- VanWey, L. K. (2005). Land ownership as a determinant of international and internal migration in Mexico and internal migration in Thailand. *International Migration Review*, 39, 141–172.
- Victor, E. C., Miles, A., & Vaisey, S. (2014). The role of moral worldviews in predicting sexual behavior from adolescence to emerging adulthood. *Journal of Adolescent Research*, 30, 779–799.
- White, M. J., & Liang, Z. (1998). The effect of immigration on the internal migration of the native-born population, 1981–1990. *Population Research and Policy Review*, 17, 141–166.
- Williams, N. (2009). Education, gender, and migration in the context of social change. Social Science Research, 38, 883–896.
- Williams, N. E., Axinn, W., Ghimire, D., Jennings, E., & Sainju-Pradhan, M. (2012). A micro-level eventcentered approach to investigating armed conflict and population responses. *Demography*, 49, 1521–1549.
- Williams, N. E., Thornton, A., & Young-DeMarco, L. C. (2014). Migrant values and beliefs: How are they different and how do they change? *Journal of Ethnic and Migration Studies*, 40, 796–813.
- Winters, P., de Janvry, A., & Sadoulet, E. (2001). Family and community networks in Mexico-U.S. migration. Journal of Human Resources, 36, 159–184.

World Bank. (2009). Impact of global financial crisis on South Asia. Washington, DC: World Bank.

World Bank. (2016). Migration and remittances factbook 2016 (3rd ed.). Washington, DC: World Bank.