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Looking Down or Looking Up: Status and Subjective Well-Being among Asian and Latino Immigrants in the United States

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Abstract

Foundational theories of international migration rest on the assumption that immigrants maintain reference groups in their country of origin even after settling in a new place, while the transnationalism perspective suggests that immigrants maintain a dual frame of reference. This paper uses the nationally-representative National Latino and Asian American Survey to test the location of immigrants' reference groups. I find that the relationship between various measures of subjective social standing and subjective well-being suggests that immigrants maintain simultaneous reference groups in both the United States and the country of origin, supporting transnational theories, and refuting earlier theories.

INTRODUCTION

Studies of immigrants to the United States often report that because US wages are higher than those in immigrants' sending countries, immigrants are quite willing to work the types of onerous and low-paying jobs that native workers shun, and are not dissuaded by the low social position associated with those jobs or the lifestyles they afford. This assumption that immigrants evaluate jobs and social positions in reference to the occupational and social organization of their home country derives from foundational theories of labor migration. According to these theories (Piore 1979; Stark 1991), immigrants' sense of well-being and social status in the United States is not determined by objective conditions, nor by comparison to the social position of US natives, but rather forms through comparison to those in their home country, since migrants' social identity remains rooted in their communities of origin. Over time, these theories posit, immigrants may begin to identify more with the destination country and switch their reference group to similar immigrants in the United States, or to the US majority population. A newer literature on immigrant transnationalism argues, in contrast, that immigrants navigate the social worlds of their home and destination countries simultaneously, maintaining strong ties to the home country even as they deepen ties to destination countries (Basch, Glick Schiller, and Szanton Blanc 1993; Guarnizo 1997; Vertovec 2006). This perspective suggests that a dual frame of reference is supported by engagement in the sending country through communication with friends and family, trips home, and/or involvement in binational organizations or businesses.

Although these claims about immigrants' frames of reference play an important role in theories of migrant behavior, the empirical evidence on immigrants' reference groups for social comparisons is relatively weak. To date, investigations of immigrants' reference groups have been limited to small, ethnographic samples of a particular national-origin group, often in an enclave context, or they have relied on small survey samples that cannot be taken as representative of US immigrant communities in general. In this paper I use data

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from the National Latino and Asian American Survey (NLAAS), a large, nationally representative sample of Latino and Asian immigrants, to investigate whether immigrants compare themselves to others in their home country or simultaneously to those in the home country and in the United States when evaluating their relative economic and social standing. After investigating the location of immigrants' reference groups, I then test whether immigrants who have lived in the United States for a longer time rely more on social comparisons in the United States and less on social comparisons in the home country than more recent immigrants. Finally, I investigate whether those with greater transnational ties to their home countries (those who travel there more frequently, maintain residence abroad, or send remittances) rely more strongly on their home country as a reference group than those who are not as engaged with their home country. I complete a series of robustness checks to ensure that the ensuing results are not driven by the anomalous experience of immigrants from one country of origin, or by refugees but not voluntary migrants.

The analysis of immigrants' reference groups and the impact of these reference groups on well-being has both theoretical and practical importance. With respect to theory, this paper is the first to empirically test the importance of foreign reference groups inherent in several major theories about the determinants of international migration and about how immigrants evaluate the success or failure of their migration decision. A better understanding of to whom immigrants compare themselves in evaluating the outcome of their migration decision can lead to stronger theories about the motivations for migration and for behavior in destination countries. In applied terms, the analysis speaks to the popular perception in the United States that immigrants (particularly, in current stereotypes, undocumented Mexican immigrants) do not mind the types of work and the low wages that native workers view as degrading, or the social position that results from working these types of jobs. Social psychological work suggests the assumption that immigrants are not bothered by such jobs may lead to severe stereotyping and even dehumanization of immigrant groups working low-status jobs (Lee and Fiske 2006). If immigrants do in fact compare themselves to the destination country native-born population, and so experience the negative effects of lower status on subjective well-being, awareness of this process could potentially help to counter such stereotypes.

IMMIGRANTS' REFERENCE GROUPS

Different strands of immigration theory provide competing views of whom immigrants employ as their reference group in assessing their social status. In the first view, promulgated by two major theories of international migration, immigrants are assumed to compare their current situation to their situation in the home country and seek to improve their status according to home country social standards. Piore (1979), outlining segmented labor market theory, argues that international migration is caused by an inherent demand for low-wage labor in developed countries. Piore theorizes about "long-distance migrants from underdeveloped rural areas" (Piore 1979, 12). He argues that most long-distance migrants intend a temporary stay and divorce their social identity from their work, which they see as merely a means to a financial end. Instead, he says, temporary immigrants' social identities are "located in the place of origin, the home community" (Piore 1979, 54). Although Piore says most migrations are intended to be temporary, he recognizes that a sizable number of immigrants do settle permanently. These settled immigrants, he says, may gradually become concerned about the status of their occupations in their new country, though this transition in attitudes in the job market is generally not complete for first generation immigrants.

Stark, outlining "the new economics of labour migration" explains that the decision to migrate is partly determined by a sense of relative deprivation. Stark (1991) argues that relative deprivation in a country of origin can provide an incentive to migrate if an

individual or family foresees lower relative deprivation after migration, because remittances or savings brought home with migrants allow the family to raise their relative income and standard of living. This theory rests on the assumption, as Stark notes, that in the short run, international migrants continue to employ the country of origin as a reference group. In the long run, however, immigrants may begin to employ their new country as their reference group. Stark also hypothesizes that in the medium run, immigrants may associate themselves simultaneously with two reference groups or may work at shaping their reference groups in order to mitigate negative comparisons. For example, immigrants may avoid associating too much with the mainstream society in order to insulate themselves from negative comparisons with their richer, native-born neighbors (Fan and Stark 2007) or may associate themselves more highly with the destination country and avoid comparisons with the home country in order to motivate improved performance (see also Stichnoth 2010).

The transnationalism literature, in contrast to Piore and Stark, does not see immigrants as shifting social and economic comparisons over time from the home country to the destination country. Instead, it argues that many immigrants persist in Stark's in-between state, comparing their situation simultaneously to home and destination countries. Defined as "the process by which immigrants build social fields that link together their country of origin and their country of settlement" (Basch, Glick Schiller, and Szanton Blanc 1994, 7), transnationalism generates economic and sociocultural ties. These transnational linkages lead both emigrants in destination countries and residents in sending countries to increasingly develop a dual frame of reference, evaluating their condition in reference to both the sending and destination country (Vertovec 2006; Guarnizo 1997). While not all immigrants engage in transnational activities, the cross-border ties and exchanges built by those who do can generate transnational orientations in sending and destination communities overall. Thus, as described by world systems theory, members of sending countries may compare their situation to the social and economic conditions in a destination country even if they remain in their home country (Massey et al. 1999; Wallerstein 2011).

Despite pervasive references in the migration literature to immigrants' social reference to home countries, little research has been brought to bear on the question of immigrants' reference groups. The studies that do exist tend to be small in scale, and geographically and culturally bounded, limiting generalizability. However, a few studies provide some suggestive evidence on immigrants' reference groups. One study of nearly 1,600 low-income people of Mexican origin in Texas asked respondents to first rank themselves on a socioeconomic ladder compared to "other people" and then to report to whom it was they were comparing themselves when giving their rank. The foreign-born respondents were most likely to say they were comparing themselves to Mexicans in the United States rather than to "people in the US and Anglos" or to Mexicans in Mexico (Franzini and Fernandez-Esquer 2006). However, the non-random sample and the use of Texas as a location for this survey limit the generalizability of these results, as the authors note.

Zhou (1995), using ethnographic methods, argues that Chinese immigrant women in New York were more willing to take low-paying jobs in the garment industry than Puerto Rican women partly because they compared their employment situation in New York to their life in their villages in China, and that this homeward orientation was perhaps due to their location in a concentrated ethnic enclave. In interviews with Mexican and Chicana women in the San Francisco Bay area, Segura (1989) similarly found that the women felt they were upwardly mobile if their current job was better than those of others in their co-ethnic community. Rogg (1971) observed that a sample of Cuban refugees in New Jersey experienced downward occupational mobility during their move to the United States, but expressed greater satisfaction with their US jobs than with their previous Cuban jobs. Rogg hypothesized that the refugees compared their US occupations favorably to those of other

members of the strong refugee community. Grasmuck and Pessar (1991) discovered that Dominican immigrants in the United States reported being members of the US middle class if they were able to acquire the consumer goods such as kitchen appliances, color television, and cars that would provide a middle-class status in the Dominican Republic. This homeward orientation led the migrants to reject suggestions that their low-skill jobs made them part of the US working class.

SOCIAL STANDING AND SUBJECTIVE WELL-BEING

In order to provide a nationally-representative test of immigrants' reference groups, in this paper I draw up upon the established relationship between social standing and subjective well-being, testing whether immigrants' social standing in the home country is more strongly related to their subjective well-being than is social standing in the United States. A strong, positive correlation between social standing in the home country and subjective well-being would indicate that immigrants use the home country as a reference group, while a strong, positive correlation between social standing in the United States and subjective well-being would indicate that immigrants use others in the United States as their reference group.

Numerous studies with non-immigrant samples have concluded that relative social position is an important determinant of subjective well-being. Easterlin reported a "paradox" in 1974 that while higher income was associated with greater happiness in cross-sectional data, the level of subjective well-being in the United States had not risen since 1945 even though real income had doubled. He posited that a rise in national income did not increase happiness because people used others around them as a reference in evaluating their own wealth, so that relative income and status were more important in determining subjective well-being than absolute income. A research enterprise formed around the question of whether absolute or relative income made a greater difference in subjective well-being. A number of studies have demonstrated a strong and significant association between relative income or relative deprivation and various measures of subjective well-being, in some cases showing the effect to be greater than that of absolute income (Ball and Chernova 2008; Clark and Oswald 1996; Ferrir-i-Carbonell 2005; Frey and Stutzer 2002; Luttmer 2005; Stewart 2006).

Lower social status along dimensions other than income also can have negative effects on subjective well-being. For example, members of racial or ethnic groups that are negatively stereotyped suffer lower subjective well-being than members of more positively viewed racial or ethnic groups. Studies conducted between 1957 and 1996 found that even after controlling for income, marital status, and age, African-Americans continuously reported being less satisfied and less happy than whites (Hughes and Thomas 1998). This finding has been replicated in South Africa (Frey and Stutzer 2002). In psychological laboratory studies, manipulating people's relative standing downward lowers happiness and satisfaction (Diener et al. 1999). Studies of physical health likewise point at a correlation between low social status and poorer subjective well-being. Health disparities between higher and lower income individuals and groups can only be partly explained by health behaviors and medical care. Researchers hypothesize that the residual differences may be due to "psychosocial stress," the fact that having subordinate status and reduced control over one's life causes stress (Cutler, Deaton, and Lleras-Muney 2006). Researchers have found that individuals who are in subordinate situations, of low status, subject to arbitrary demands, or subjected to racial discrimination have "fight or flight" responses that negatively impact health over time (Seeman et al. 1997).

SUBJECTIVE SOCIAL STATUS

Exploring the relationship between relative status and subjective well-being requires measurement of respondents' social status, but this task is far from straightforward. Generally, researchers identify income, occupations, educational attainment, or other measures of SES relative to some reference group. But because researchers usually lack data to develop empirically-driven definitions of people's reference groups, they are forced to construct reference groups based on a set of assumptions. Studies to date have variously defined reference groups as others in a geographic area, others with similar socio-demographic characteristics, or others in the same or similar occupations (Clark, Frijters, and Shields 2008). In order to get around the problem of constructing reference groups for respondents, a newer literature has begun examining the relationship between subjective social standing (SSS) and health and well-being outcomes. Adler et al. (2000) developed a new measure of subjective social and economic standing which asked respondents to place themselves on symbolic ladder of 10 rungs, with the top rung representing people with the best jobs, most money, and most education, and the bottom rung representing those with least money, worst or no jobs, and least education. A range of studies employing this measure have found that among diverse populations, controlling for objective socioeconomic status, SSS is significantly related to adult physical health outcomes (Leu et al. 2008). Furthermore, there is some evidence that SSS is even more closely associated with health outcomes than is social status measured objectively through income, educational attainment, and occupation (Adler et al. 2000; Franzini and Fernandez-Esquer 2006).

There are two good, albeit contradictory, reasons to expect that SSS may better predict subjective well-being than objective measures of class and status. Research has soundly demonstrated that most individuals employ a selective reference group in describing their rank in society, leading them to conclude that they fall in or near the middle of the class/income/status distribution even if their income is substantially higher or lower than the median. There is some correlation, of course, between subjective and objective measures of social standing, but people are not necessarily fully aware of their position in society (Kelley and Evans 1995). Given the disparity between people's perceptions of their rank in society and objective measures of social class, it seems reasonable to expect that their perceptions of their social status affect their subjective well-being more than objective indicators of status do. Alternatively, it is possible that SSS captures some nuance of an individual's social standing that objective measures cannot reflect. For example, there is a difference in the social meaning of a bachelor's degree from an Ivy League institution as compared to a degree from a local public university, but most measures of SES capture only the years of education attained, not the prestige of the school granting the degree (Franzini and Fernandez-Esquer 2006).

QUESTIONS AND HYPOTHESES

In this paper I draw on earlier migration theories promulgated by Stark and Piore and newer ideas about transnationalism to ask whether immigrants draw more strongly on comparisons to those in the home country in evaluating their relative economic and social standing, whether they compare themselves simultaneously to those in the home and destination country, or whether they perhaps compare themselves more strongly to others in the United States as a whole or in their US community. Then I ask whether immigrants shift their reference group over time in the United States from a stronger reliance on home country comparisons to a stronger reliance on US-based comparisons. Finally, I investigate whether immigrants who have higher transnational involvement in their home country are more likely to hold a dual frame of reference than those who are not transnationally engaged.

I test three sets of competing hypotheses, outlined below, which pit Stark and Piore against the transnationalism literature.

Hypotheses drawn from Stark and Piore	Hypotheses drawn from transnationalism
1a. Immigrants utilize home country reference groups much more strongly than US-based reference groups in making social comparisons.	1b. Immigrants compare themselves simultaneously to those in home countries and to those in the United States in making social comparisons.
2a. Immigrants who have resided in the United States for a longer period of time will rely less on home country reference groups, and more on US-based reference groups, than those who have resided in the United States for a shorter period of time.	2b. Duration of residence in the United States has no meaningful impact on immigrants' reference groups.
3a. Immigrants' levels of transnational engagement have no meaningful impact on their reference groups.	3b. Immigrants who have higher transnational involvement will rely even more heavily on home country reference groups than those with lower transnational involvement.

DATA AND METHODS

The National Latino and Asian American Study (NLAAS), conducted in 2002–2003, was designed as part of the Collaborative Psychiatric Epidemiology Surveys (CPES), which were undertaken in order to study the prevalence and correlates of mental disorders among the general population and minority groups. They also sought to investigate cultural and ethnic influences on mental disorders, and the role of ethnic disparities, discrimination, and assimilation on mental disorders (Alegria et al. 2004). The NLAAS is representative of Latino American and Asian American adults aged 18 and older residing in households in the United States. The sample includes four target Asian groups: Chinese, Filipino, Vietnamese, and other Asian descent, and four Latino groups: Cuban, Mexican, Puerto Rican, and other Latino descent. The sampling design involved three stages: 1) primary sampling of units defined as metropolitan statistical areas or county units, and secondary sampling of units formed from contiguous groupings of census blocks, selected with probability proportionate to size; 2) high-density supplemental sampling, which oversampled census block groups with high density of target ancestry groups; and 3) recruitment of secondary respondents from households in which one eligible member had already been interviewed. Face-to-face interviews were conducted by bilingual interviewers with linguistic and cultural backgrounds similar to those of the target population. From this sample, I selected the foreign-born residents (N=3,237) and further restricted my analysis to respondents who had answered all questions employed in this analysis. This reduced the sample size by another 261 respondents to 2,976. All descriptive statistics use sample weights. Observations are weighted to match the national distribution of ethnicity by ethnic composition of one's neighborhood (block group).

Stark and Piore developed their theories to talk about labor migrants, not refugees. Existing migration theories do not lead to any clear hypotheses about the reference groups of refugees. It could be that all international migrants inevitably maintain some connection to their home country. Conversely, given that refugees have often fled a country embroiled in violence or political tension, they may actively try to divorce themselves from ties to the home country. Finally, it could be that since refugees may not imagine a future return to their home country, they shift from a reliance on a home country to a host country reference group faster than voluntary migrants. Since current theory and evidence does not suggest a clear expectation about refugees' reference groups, in this paper I include refugees in my main analysis, but then replicate my analyses separately for voluntary and involuntary migrants.

In order to measure subjective well-being in the United States, I look two dimensions of immigrants' well-being in the United States, measured by four outcome variables. The first dimension is migrants' rational assessment of the decision to migrate. To measure this, I first look at satisfaction with US economic opportunity. Satisfaction with economic opportunity was originally measured on a scale from one to five, with one representing a response of "very dissatisfied," and five representing a response of "very satisfied." However, there were very low response rates for categories one through three, so I collapse answers from one (very dissatisfied) to three (neither dissatisfied nor satisfied) into a ranking of three. In my coding, four represents "satisfied," and five "very satisfied." The average response was 4.14 (means by national origin group are shown in Appendix 1). The second measure capturing migrants' rational assessment of their migration outcome looks at migrants' answer to the following question: "If you had to make the decision today, would you still move to the United States?" Answers of yes are coded 1, and no coded 0. A full 93 percent of the sample said they would still move.

The second dimension of well-being that I examine is affective well-being. I look at both self-reported mental health status and at self-reported frequency of depression in the past month. Early in the survey, respondents were asked "How would you rate your overall mental health - excellent, very good, good, fair, or poor?" I coded "poor" as 1 and "excellent" as 5. The average answer for the sample was 3.75. Respondents were also asked "During the last 30 days, about how often did you feel depressed? Would you say all of the time, most of the time, some of the time, a little of the time or none of the time?" I coded answers of "all of the time" 1, and "none of the time" 5. The mean answer was 4.40.

The main independent variables in this analysis are three measures of subjective social standing (SSS), in the United States, in the respondent's US community, and in the respondent's country of origin. The question asking about SSS in the United States, accompanied by a picture of a ladder with ten rungs, was worded as follows:

"Think of this ladder as representing where people stand in the United States. At the top of the ladder are the people who are the best off - those who have the most money, the most education and the most respected jobs. At the bottom are the people who are the worst off - who have the least money, least education, and the least respected jobs or no job. The higher up you are on the ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom. What is the number to the right of the rung where you think you stand at this time in your life, relative to other people in the United States?"

The version of this question asking about SSS in the community instructed respondents to define "community" as they saw fit. The question about SSS in the country of origin instructed respondents to think about their rank in this moment and where they would stand on the ladder if they were still in their country of origin. Therefore, this question should capture people's perceptions about where their wealth, educational attainment, and occupation would currently place them on the class/status scale in their country of origin. As shown in Figure 1, the mean SSS reported for the United States was 5.46, the mean SSS for the US community was 6.08, and the mean SSS for the country of origin was 6.05. The higher reported SSS in the community than in the United States as a whole suggests that immigrants perceive others in their communities to be poorer, to have worse jobs, or to have less education than the overall US population. Figure 1 also shows mean SSS by country of origin. In my regression analysis I standardize these rankings in order to enable comparisons of the strength of the effects of the various measures of SSS. The correlation between SSS in the United States as a whole and in the US community was relatively high (see Table 1), so I do not include these two measures in the same regression models. The correlations between

SSS in the home country and SSS in the United States as a whole or in the US community are not high enough to create problems of multicollinearity.

In my models, I explore the relationship between these measures of SSS and measures of subjective well-being. Given that prior research has shown that social standing has a significant, positive effect on subjective well-being, I assume that whatever measure of SSS is most salient in the migrant's mind has the strongest positive effect on subjective well-being. Therefore, if Stark and Piore are correct that immigrants rely primarily on a home country reference group, then SSS in the home country will be most positively associated with subjective well-being. If descriptions of transnationalism are correct, on the other hand, then SSS in the home country and in the United States will both be positively associated with subjective well-being. No relationship between SSS in the home country or in the United States and subjective well-being would imply that the home country or the United States is not being used as a reference group.

I use OLS regressions to look at the correlates of satisfaction with US economic opportunity, logistic regression for correlates of whether the migrant says that he or she would still migrate if deciding today, and ordered logistic regression for frequency of depression and overall mental health rating. I use OLS regression for satisfaction with economic opportunity because the distribution appears normally distributed, and for greater ease of interpretation of coefficients. The results tell the same story if I run an ordered logit model. All regressions include random intercepts at the household level, to control for unobserved household level characteristics that affect primary and secondary respondents in the same way. This is necessary because variance components models show that the intraclass correlation between pairs of household members runs as high as 0.35 for some outcomes.

My models include basic demographic controls such as gender, age and age squared, whether the respondent is either married or cohabiting with a partner, how many children live in the respondent's home, and self-reported physical health on a one to five scale from poor to excellent. I control for objective measures of an immigrant's socioeconomic position by controlling for educational attainment, household income, a dummy for topcoded household income, employment status, and occupation. I include a set of controls for immigration background, levels of assimilation, and transnational involvement. For immigration background, I include respondents' country of birth, refugee status, length of US residence, citizenship status, and English speaking ability. In order to measure transnational behavior, I use a report of whether respondents said their primary residence was the United States or another country (I collapsed those reporting that both countries are their primary residence into those reporting their country of origin as their primary residence), frequency of return to the country of origin last year, a binary indicator of whether the respondent reported having citizenship in their home country (this is set to equal 1 for all Puerto Rican respondents), and a binary indicator of whether the respondent reported sending money to relatives in their country of origin. Means for all variables, by national origin group, are shown in appendix 1.

RESULTS

Based on Piore (1979) and Stark (1991), I hypothesize that subjective social standing in the country of origin will have a significant, positive association with all four measures of immigrants' well-being in the United States, or conversely, based on the transnationalism literature, that SSS in both the country of origin and in the United States will have a significant, positive association with all four measures of subjective well-being. Table 2 shows the associations between social standing in the country of origin and in the United States and the four outcomes.

Looking first at rational assessments of the decision to migrate, model 1 shows that SSS in the country of origin is significantly associated with satisfaction with US economic opportunity, but in the opposite direction of what older migration theories would suggest. Higher SSS in the country of origin is associated with significantly lower satisfaction with US economic opportunity, not higher satisfaction. Although prior migration theories suggest that SSS in the US should not affect satisfaction with US economic opportunity, a one standard deviation increase in SSS in the US is associated with a 0.13 point increase in satisfaction with US economic opportunity. Model 2 shows the effects of the two types of SSS on whether migrants say they would still move to the United States if deciding today. Again, opposite to what we would expect, this model shows that higher SSS in the country of origin is significantly associated with lower odds of saying one would still migrate today, while again countering Stark and Piore's theories, higher SSS in the United States is associated with higher odds of saying one would still migrate if deciding today, though this association is only marginally significant.

Looking next at the effect of SSS on affective well-being, model 3 shows the association between the two measures of SSS and the frequency of depression in the past month with full controls. Remember that depression in the past month is reverse coded, so a positive coefficient indicates less frequent depression. This model shows that, consistent with older theories, higher SSS in the country of origin is significantly associated with lower frequency of depression, while SSS in the United States is not significantly associated with depression. Model 4 shows that SSS in the United States is significantly associated with better mental health, while SSS in the home country is not significantly associated with better mental health.

Overall, the models in table 2 provide strongest evidence for the use of the United States as a reference group, since higher SSS in the United States is associated with significantly higher satisfaction with US economic opportunity and better overall mental health. There is also some evidence that higher SSS in the home country is associated with subjective well-being, as it is positively correlated with less frequent depression in the past month. Therefore, there is stronger evidence for hypothesis 1b, derived from theories on transnationalism, that immigrants maintain simultaneous home and destination country reference groups, than there is for Stark and Piore's idea that immigrants rely primarily on home country reference groups. The relationships between SSS in the home country and the rational assessment of the migration decision presents somewhat of a puzzle. Given the established relationship between social standing and subjective well-being, we would have expected that if migrants use a home country reference group, home country SSS would be associated with a more positive assessment of the migration decision. But in these results, higher social standing in the country of origin appears to be associated with lower satisfaction with economic opportunity and lower odds of saying one would still migrate if deciding today. This could result from the fact that immigrants are reporting their SSS in the home country at the time of departure rather than their current home country SSS. If this is the case, it could be that those who come from higher in the social scale of their home country have higher expectations for their lives in the United States and so find themselves less satisfied with the outcome of their migration. This seems to suggest that immigrants do rely at least in part on a home country reference group, but that this comparison may lead immigrants with higher social standing to have less positive assessments of their decision to migrate.

Prior community-based studies have uncovered some evidence that migrants compare their situation mainly to others in their immigrant communities in the destination country. To investigate whether this is borne out by my data, I next looked at the associations between both types of SSS and subjective well-being. Table 3 shows these results. Since SSS in the

United States as a whole and in the US community are highly correlated, these results tell much the same story as the results in table 2. Models 1 and 2 show that higher SSS in the US community is associated with more positive assessments of US economic opportunity and with better overall mental health. They further show that SSS in the home country is associated with less frequent depression in the past month, but also with lower satisfaction with US economic opportunity and with lower odds of saying one would still migrate if deciding today. Therefore, as with the regressions relying on SSS in the United States as a whole, these results provide support for the dual reference group hypothesis put forward by the transnationalism perspective.

ROBUSTNESS CHECKS

These findings suggest that immigrants rely on both US and home country comparisons, rather than the primarily home country comparisons suggested by classical immigration theories. However, the findings so far are subject to several counter hypotheses. In this section, I will examine these counter arguments, and test whether the findings can hold in the face of these criticisms.

First, one could argue that the relationship between SSS and the four measures of subjective well-being is spurious. It could be that people with more positive dispositions report higher social standing and more positive subjective well-being, while those with more pessimistic dispositions report lower subjective well-being and lower social standing. These scenarios are likely true and lead to some concern about the veracity of the relationships observed. However, all of the models described above include more than one measure of SSS. If a person simply has a positive disposition, that person is likely to inflate all three measures of SSS, not just one. Therefore, in models including two measures of SSS, we can compare the standardized coefficients on the SSS measures, and see which of those measures is more strongly associated with the well-being outcome. Second, one might be concerned that the association between SSS and well-being is a spurious relationship because both SSS and well-being are actually caused by objective factors such as education, income, and occupational prestige. However, tables 2 and 3 show that the relationships between SSS and well-being hold even after controlling for these objective measures of social standing.

Third, one could argue that because I am looking at voluntary migrants and involuntary migrants combined, my sample does not really match the type of migrants that Piore and Stark were writing about. It could be that the expected relationships hold for voluntary migrants, but not for refugees/involuntary migrants, or vice versa. To test this, I repeated my analyses looking separately at voluntary and involuntary migrants (results available upon request). For both voluntary migrants and refugees, the associations between SSS in the United States and SSS in the home country and the four measures of well-being were in the same direction and of fairly similar magnitude as the full sample. It appears that refugees have similar reference group behavior to voluntary migrants, and so the inclusion of refugees in the sample is not driving the finding of strong reliance on a US-based reference group.

Fourth, one might suspect that looking at Asian and Latin American immigrants in aggregate hides diversity in reference groups by country of origin. To investigate this, I ran all regressions again, separately for each place of birth (see table 4). Where associations are significant, they match the findings from the overall sample. For satisfaction with US economic opportunity, the association between SSS in the United States and satisfaction is significant and positive for immigrants from China, Vietnam, Cuba, Mexico, and other parts of Latin America. The negative association between SSS in the country of origin and satisfaction with US economic opportunity in the full sample seems to be driven by the

significant, negative association found among Cuban and Puerto Rican immigrants. For the ratification of the decision to migrate, the association with SSS in the United States as a whole was significant and positive for those from China, not any other groups. The association between SSS in the home country and whether one is likely to migrate again if deciding today was negative and significant for those from Vietnam and Mexico, but was not significant for other groups.

The relationship between SSS in the United States and less frequent depression is positive for all national origin group except Vietnam, but due to the small per-country sample size, these associations are not significant. For self-reported mental health, the positive association with higher SSS in the United States is driven by immigrants from China and Cuba. The positive association between SSS in the home country and less frequent depression is driven by immigrants from Vietnam, while the relationship between SSS in the home country and overall mental health is significant only for those from Puerto Rico.

Overall, then, these country-specific regressions demonstrate that some national origin groups seem to have stronger relationships between both measures of SSS and subjective well-being than others. The low power afforded by these per-country samples precludes drawing any firm conclusions about differences by country of origin. But these results support the general story that higher SSS in the United States is positively related to higher subjective well-being, while SSS in the home country is associated with better affective well-being but lower rational assessments of the decision to migrate. It does not appear that the overall story is masking strongly divergent results for immigrants from any particular sending country. Rather, immigrants from various countries seem to be relying simultaneously on US and home country reference groups, supporting the hypothesis suggested by theories of transnationalism.

Finally, there is some reason to worry that my measure of subjective social standing in the country of origin is problematic. It could require some mental acrobatics for respondents to say what their social standing would be if they were still in their country of origin but had the characteristics they have today. Answering such a question also requires respondents to know what conditions are currently like in their country of origin. For those who have been away a long time, and particularly for those who do not make visits back to their home country, it may be impossible to determine where one's income, occupation, etc. would place him/her in the social hierarchy of this country. There might be reason to worry that rather than answering the question as intended, respondents answered what their social standing was in their country of origin before they emigrated. The principal investigators of the NLAAS report that cognitive pretesting of the survey instrument did not reveal that respondents found this question difficult to answer.¹ Furthermore, it may not matter what time period respondents use in evaluating their home country social standing, so long as the question measures their perceived social standing at home. I would expect that perceived social standing should be more correlated with subjective well-being than actual social standing, regardless of the time period upon which the perceived social standing is based.

Still, in order to try to independently test whether respondents may have been misinterpreting the question or answering incorrectly, I repeated my analyses for only recent immigrants (those in the country for fewer than 10 years) who received their education in their home country and who had low educational attainment (less than 12 years of education). Looking at this subgroup should screen out those who had been away from their home country too long to know where they would stand in the social hierarchy. Screening out respondents with high education should also mean that those reporting high SSS in their

¹Personal communication with Margarita Alegria.

home country are not doing so because they had high home country SSS before migration. Using 12 years of education as a cut-off provides a rough proxy for low pre-migration SSS in the home country. It is possible that those with 11 or fewer years of education have high educational attainment relative to those in their home community, particularly if they are from a rural area. But having fewer than 12 years of education does at least ensure that the migrant does not originate from the college educated elite. Because Piore in particular based his theory on low-skill migrants moving from agricultural areas, focusing on this lower education subgroup also focuses in on the population on which Piore's theory was most directly based.

In this subsample of 311 respondents, the same general story appears as was seen in the full sample, although the small sample size means that many fewer coefficients are significant (tables available upon request). Higher SSS in the United States is still associated with significantly higher satisfaction with US economic opportunity, while higher SSS in the country of origin is associated with lower satisfaction. The associations between SSS in the country of origin and the United States and whether a migrant says they would still move match the direction of the full sample, but are not significant. For the two measures of affective well-being, SSS in the home country and SSS in the United States are both associated with greater well-being, but the associations are not significant. The small sample size precludes drawing strong conclusions from these results. The only significant results, however, do support the findings from the full sample.

RESULTS BY DURATION OF US RESIDENCE

Both Piore (1979) and Stark (1991) hypothesize that immigrants' reference groups are likely to shift to domestic comparisons the longer immigrants reside in the United States, while the transnational perspective would suggest that immigrants retain a dual reference group even many years after migration. In order to test whether this part of the hypothesis is borne out by the data, I next looked at the effect of interactions between the three subjective social standing ranks and time in the United States on measures of subjective well-being. Specifically, I looked at whether the associations between social rankings and my four outcomes were different for those who had been in the United States for fewer than five years compared to those who had been in the United States for five years or more. As shown in table 5, there is some weak evidence of interactions between time in the United States and subjective social standing, controlling for demographic characteristics and country of birth. Model 5 suggests, consistent with theory, that subjective social standing in the United States matters less for newer immigrants than for longer term immigrants in shaping depression. For those who have been in the United States for fewer than five years, moving from SSS in the US of 0 (on the standardized scale) to SSS of 1 is associated with a small, insignificant decrease in the odds of having lower depression, while for those who have been in the United States for five years or more, a one point increase in standardized SSS in the United States is associated with an 18 percent increase in the odds of having lower depression. On the other hand, it appears that duration in the United States does not affect the relationship between home country SSS and subjective well-being.

In order to verify whether the switch from comparisons to the home country to comparisons to the US may take longer than five years, I repeated the regressions with interactions with having been in the United States for 10 or more years. There are no significant interactions terms in these models, perhaps indicating that any shift in reference groups happen within migrants' earliest years in the country. Overall, though, there is quite limited support for the claim that immigrants shift their reference groups over time from home-country to US-based reference groups.

TRANSNATIONALISMS' IMPACT ON REFERENCE GROUPS

Transnational theories suggest that immigrants maintain dual reference groups after (and sometimes before) international migration. In this perspective, migrants' dual reference group is reinforced by engagement in the home country, through involvement in transnational associations or businesses, or simply through phone calls, remittances, or visits to family and friends in the home country. In order to investigate whether transnational orientation is associated with stronger reliance on home country as well as US reference groups, I test whether immigrants who have higher levels of transnational engagement are more likely to rely on home country reference groups in addition to US reference groups than immigrants who are not transnationally engaged.

In order to test this, I interact my SSS variables with three variables indicating transnational involvement: 1) whether the migrant returned to their home country one or more times in the prior year, 2) whether the migrant sends remittances to family or friends in the home country, and 3) whether the migrant reports that their primary residence is in the home country. I did not include whether the migrant retained citizenship in their home country, as I did in my set of transnationalism controls in previous models, because it seems that some immigrants might not be aware of their home country citizenship status – 188 respondents, from a mix of sending countries, reported that they did not have citizenship in their home country or in the United States, which seems unlikely to be true. I keep this as a control variable, despite the likely measurement error.

Table 6 shows the relationships between these interaction terms and the four measures of subjective well-being. There is limited evidence that those with higher transnational involvement rely less on US-based comparisons than those who are not transnationally engaged. The significant interaction term in model 3 suggests that SSS in the United States is less positively associated with saying one would still migrate if deciding today for those who send remittances than for those who do not. The significant interaction term in model 5 shows that SSS in the United States is less positively associated with less frequent depression for those who returned to the home country last year than for those who did not. There is no evidence, however, that transnational engagement bolsters reliance on home country reference groups, so these models do not provide support for hypothesis 3b, that higher transnational engagement leads to stronger reliance on a home country reference group in addition to a destination country reference group.

CONCLUSIONS

Older theories of international migration assume that immigrants maintain their home country as a reference group, and that evaluations of the success of an international move depend on improvement over one's peers in the sending country. Transnational theories, on the other hand, suggest that immigrants rely simultaneously on home and destination country reference groups. The analysis above suggests that immigrants do rely on US-based reference groups, disproving foundational theories of a purely home-based reference group. They also show that immigrants seem to simultaneously rely on home country reference groups, providing support for transnational theories' suggestions of a dual frame of reference. While I would have expected that home country reference groups would mean that higher SSS in the home country was associated with more positive assessments of the decision to migrate, results suggest that higher SSS in the home country is associated with significantly lower satisfaction with the migration decision and the economic opportunity it afforded.

While the assumption of the home country reference group came out of theories of the determinants of international migration, understanding to whom immigrants compare themselves in making social comparisons, and how this impacts affective well-being, has important implications for immigrants' well-being and assimilation trajectories. If lower-income immigrants remain in destination countries despite low satisfaction and negative mental health, this suggests that researchers and policymakers should not be concerned only with the intergenerational assimilation trajectories of various immigrant groups, but should be just as concerned about the economic and social mobility of the first immigrant generation, since lower social standing seems to be correlated with poorer mental health outcomes. Immigrants may choose to endure the negative effects of low status in order to pave the way for their children's future success or to provide needed funds to family members back home, but the fact that they choose to stay and work low-status jobs should not be taken as evidence that these jobs bring satisfaction or contentment.

There are a number of limitations to this study, however. First, given that the rankings are subjective, it remains a bit unclear to what people were referring in evaluating their social position. Asking respondents to define "community" in the way that makes most sense for them gets around problems of assuming reference groups, but does not allow us to know whether these are mainly co-ethnic communities, diverse immigrant communities, geographically shaped communities, or perhaps transnational communities. Likewise, as stated above, immigrants may have imperfect information about the social hierarchy in their country of origin.

Second, the data employed here do not allow us to compare social standing before migration with social standing after migration. Longitudinal data, which is not currently available, would allow a comparison of home country social standing before and after migration, to see if these gains in home country social standing led to positive assessments of the migration decision, or served as bolsters to mental health in the face of possible low social standing in the United States. Future research could also better tackle the question of which reference groups immigrants employ in evaluating their well-being in the United States by replicating Franzini and Fernandez-Esquer's (2006) study with a representative sample, asking immigrants to rank their social standing, and then questioning them about the community they used as a reference group in determining that standing. This would be particularly helpful because the relationship between social standing and subjective well-being may be confounded if immigrants select lower or higher reference groups intentionally in order to either raise their sense of well-being, or motivate themselves to work harder (Stichnoth 2010).

Employing longitudinal data would also help to avoid conflating duration of residence and cohort effects. In this cross-sectional sample, there are differences between cohorts of immigrants beyond the length of their residence in the United States. This is most problematic for Cuban immigrants, who entered the United States at different times depending on their socioeconomic characteristics, but the selection of migrants to the United States has changed over time for most sending countries. Therefore, the lack of conclusive interaction effects in this sample may indicate a data weakness more than a conclusive finding that immigrants do not shift their reference groups over the duration of their US residence. In sum, there is much room for further study, but this paper presents some initial evidence, using the only nationally representative data available to date to answer this question, that Stark and Piore's theories about immigrants' retaining their home country as a reference group need to be reconsidered.

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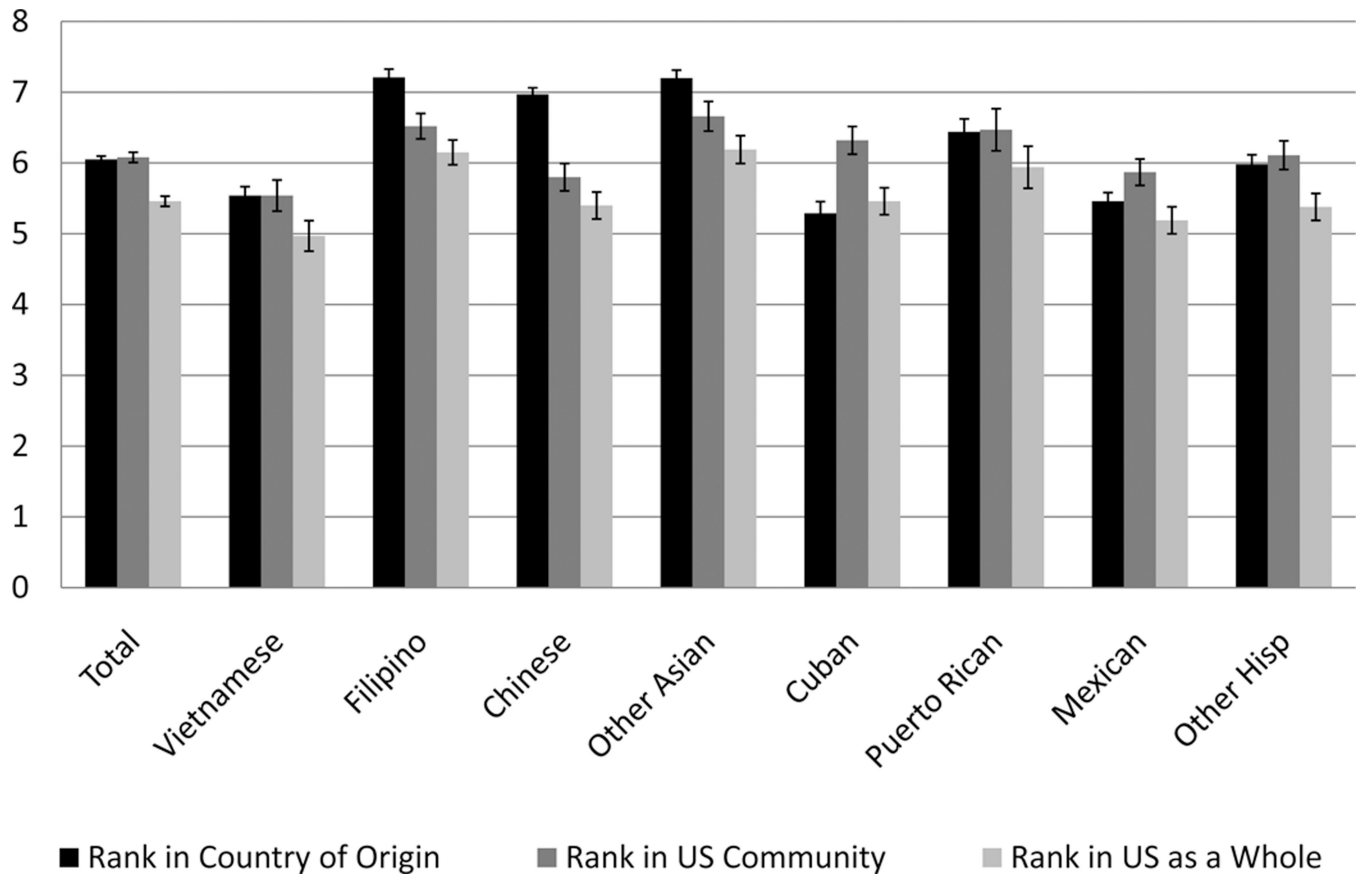


Figure 1.
Measures of Subjective Rank, by Place of Birth.

Table 1

Weighted Correlations between SSS Measures

	Rank in US	Rank in community	Rank in Country of origin
Rank in US	1.00		
Rank in community	0.68	1.00	
Rank in country of origin	0.37	0.42	1.00

Source: National Latino and Asian American Survey.

Table 2

Effect of Subjective Social Standing in US and Origin on Four Measures of Subjective Well-Being, with Household Random Effects

	<u>Satisfaction with US Economic Opportunity, OLS</u>		<u>Would Still Move, Logistic Regression</u>	
	(1)		(2)	
	b	SE	Odds Ratio	SE
Rank in country of origin	-0.046**	(0.013)	0.763**	(0.077)
Rank in US as a whole	0.133**	(0.014)	1.202 [^]	(0.118)
Demographic controls	yes**		yes	
Country of birth controls	yes**		yes*	
Objective status controls	yes**		yes	
Immigration controls	yes**		yes [^]	
Transnationalism controls	yes		yes**	
Constant	4.218**	(0.141)	212.9**	(241.539)
N	2976		2976	

	<u>Depression in Past Month (Reverse Coded), Ordered Logistic Regression</u>		<u>Self-Reported Mental Health, Ordered Logistic Regression</u>	
	(3)		(4)	
	Odds Ratio	SE	Odds Ratio	SE
Rank in country of origin	1.145**	(0.050)	1.072	(0.042)
Rank in US as a whole	1.087 [^]	(0.051)	1.175**	(0.049)
Demographic controls	yes**		yes	
Country of birth controls	yes**		yes**	
Objective status controls	yes**		yes**	
Immigration controls	yes		yes**	
Transnationalism controls	yes*		yes	
N	2976		2976	

Source: National Latino and Asian American Survey.

Notes: Standard errors in parentheses.

Models without objective status controls, immigration controls, or transnationalism controls show similar results.

Demographic controls include gender, marital status, age, age squared, physical health status, and presence of children in the household.

Country of birth controls include a dummy variable for country of birth, or for being in the "other Asian" or "other Latino" category.

Objective status controls include educational attainment, household income, a dummy for topcoded household income, employment status, and occupation.

Immigration controls include refugee status, citizenship status, length of residence in the United States, and English ability.

Transnationalism controls include whether the immigrant's primary residence is in another country, frequency of return to the home country the prior year, possession of citizenship in the home country, and whether the respondent sends remittances to the home country.

[^]
p<0.10

*
p<0.05

**
p<0.01

Table 3

Effect of Subjective Social Standing in Community and Origin on Four Measures of Subjective Well-Being, with Household Random Effects

	<u>Satisfaction with US Economic Opportunity, OLS</u>		<u>Would Still Move, Logistic Regression</u>	
	(1)		(2)	
	b	SE	Odds Ratio	SE
Rank in country of origin	-0.043**	(0.013)	0.760**	(0.080)
Rank in US community	0.099**	(0.013)	1.193 [^]	(0.117)
Demographic controls	yes**		yes	
Country of birth controls	yes**		yes*	
Objective status controls	yes**		yes	
Immigration controls	yes**		yes*	
Transnationalism controls	yes		yes**	
Constant	4.172**	(0.142)	247.3**	(287.101)
N	2951		2951	
	<u>Depression in Past Month (Reverse Coded), Ordered Logistic Regression</u>		<u>Self-Reported Mental Health, Ordered Logistic Regression</u>	
	(3)		(4)	
	Odds Ratio	SE	Odds Ratio	SE
Rank in country of origin	1.142**	(0.051)	1.044	(0.042)
Rank in US community	1.088 [^]	(0.050)	1.224**	(0.051)
Demographic controls	yes**		yes	
Country of birth controls	yes**		yes**	
Objective status controls	yes**		yes**	
Immigration controls	yes		yes**	
Transnationalism controls	yes*		yes	
N	2951		2951	

Source: National Latino and Asian American Survey.

Notes: Standard errors in parentheses.

Models without objective status controls, immigration controls, or transnationalism controls show similar results.

Demographic controls include gender, marital status, age, age squared, physical health status, and presence of children in the household.

Country of birth controls include a dummy variable for country of birth, or for being in the "other Asian" or "other Latino" category.

Objective status controls include educational attainment, household income, a dummy for topcoded household income, employment status, and occupation.

Immigration controls include refugee status, citizenship status, length of residence in the United States, and English ability.

Transnationalism controls include whether the immigrants' primary residence is in another country, frequency of return to the home country the prior year, possession of citizenship in the home country, and whether the respondent sends remittances to the home country.

[^]
p<0.10

*
p<0.05

**
p<0.01

Table 4
 Effect of Subjective Social Standing in US and Origin on Four Measures of Subjective Well-Being, by Place of Birth

		Satisfaction with US Economic Opportunity, OLS														
		Vietnamese	Filipino	Chinese	Other Asian	Cuban	Puerto Rican	Mexican	Other Hispanic							
Rank in country of origin	-0.070 [^]	(0.037)	0.045	(0.042)	-0.052	(0.047)	0.051	(0.060)	-0.050 [*]	(0.022)	-0.118 [*]	(0.058)	-0.044	(0.032)	-0.018	(0.035)
Rank in US as a whole	0.177 ^{**}	(0.039)	0.041	(0.042)	0.143 ^{**}	(0.038)	0.012	(0.053)	0.149 ^{**}	(0.030)	0.109 [^]	(0.057)	0.082 [*]	(0.033)	0.178 ^{**}	(0.041)
Constant	4.414 ^{**}	(0.413)	3.190 ^{**}	(0.661)	3.891 ^{**}	(0.444)	3.237 ^{**}	(0.565)	4.241 ^{**}	(0.359)	5.122 ^{**}	(0.685)	4.456 ^{**}	(0.450)	3.711 ^{**}	(0.382)
N	438	328	415	289	482	183	445	397								
		Would Still Move if Deciding Today, Logistic Regression, Odds Ratios														
		Vietnamese	Filipino	Chinese	Other Asian	Cuban	Puerto Rican	Mexican	Other Hispanic							
Rank in country of origin	0.301 ^{**}	(0.114)	0.718	(0.488)	0.693	(0.209)	0.809	(0.289)	0.787	(0.269)	0.856	(0.270)	0.526 [*]	(0.171)	0.984	(0.221)
Rank in US as a whole	1.549	(0.426)	0.946	(0.417)	1.643 [*]	(0.362)	1.626	(0.535)	1.316	(0.443)	0.959	(0.285)	1.202	(0.301)	1.140	(0.269)
Constant	7900.1 ^{**}	(25390.104)	3533.1	(19647.087)	4.274	(8.223)	25.94	(61.864)	185.3	(1594.791)	22420.1 [*]	(94435.140)	2365.8 [^]	(10236.909)	1.990	(3.049)
N	438	328	415	289	482	183	445	397								
		Frequency of Depression in the Past Month (Reverse Coded), Ordered Logistic Regression, Odds Ratios														
		Vietnamese	Filipino	Chinese	Other Asian	Cuban	Puerto Rican	Mexican	Other Hispanic							
Rank in country of origin	1.325 [*]	(0.172)	1.191	(0.214)	0.974	(0.162)	1.383	(0.707)	1.079	(0.083)	1.342	(0.250)	0.894	(0.122)	1.043	(0.133)
Rank in US as a whole	0.917	(0.132)	1.349	(0.249)	1.298 [^]	(0.182)	1.691	(0.865)	1.130	(0.115)	1.214	(0.225)	1.177	(0.161)	1.008	(0.153)
N	438	328	415	289	482	183	445	397								

Self Reported Mental Health, Ordered Logistic Regression, Odds Ratios

	Vietnamese	Filipino	Chinese	Other Asian	Cuban	Puerto Rican	Mexican	Other Hispanic
Rank in country of origin	0.915 (0.102)	0.988 (0.158)	1.255 (0.207)	1.175 (0.264)	1.074 (0.088)	1.541* (0.316)	1.006 (0.102)	1.073 (0.118)
Rank in US as a whole	1.174 (0.137)	1.059 (0.165)	1.390* (0.186)	1.191 (0.226)	1.395** (0.175)	1.155 (0.220)	1.125 (0.121)	1.010 (0.128)
N	438	328	415	289	482	183	445	397

Source: National Latino and Asian American Survey.

Notes: Standard errors in parentheses.

All models control for gender, marital status, age, age squared, and the number of children in the household.

Satisfaction with economic opportunity, mental health, and depression models also control for physical health status, educational attainment, household income, a dummy for topcoded household income, employment status, occupation, refugee status, length of residence in the United States, English ability, whether the immigrant's primary residence is in another country, possession of citizenship in the home country, and whether the respondent sends remittances to the home country.

[^] p<0.10

* p<0.05

** p<0.01

Table 5

Correlates of Four Outcomes with Time in US Interactions

	Satisfaction with US Economic Opportunity, OLS			Would Still Move, Logistic Regression				
	(1)	(2)	(3)	(4)	(5)	(6)		
b	SE	b	SE	Odds ratio	SE	Odds ratio	SE	
Ranks								
Rank in US as a whole	0.121**	(0.015)	1.095	(0.120)				
Rank in US as a whole*in US <5 years	-0.005	(0.028)	1.091	(0.197)				
Rank in country of origin		-0.016	(0.013)	0.787*	(0.086)			
Rank in country of origin*in US <5 years		0.022	(0.031)	1.061	(0.234)			
Constant	4.252**	(0.141)	4.132**	(0.143)	243.2**	(275.947)	196.1**	(224.183)
N	2976			2976			2976	
Depression in Past Month (Reverse Coded), Ordered Logistic Regression								
Self-Reported Mental Health, Ordered Logistic Regression								
Ranks								
Rank in US as a whole	1.188**	(0.061)	1.241**	(0.056)				
Rank in US as a whole*in US <5 years	0.801*	(0.078)	0.858^	(0.073)				
Rank in country of origin		1.176**	(0.053)	1.121**	(0.046)			
Rank in country of origin*in US <5 years		0.957	(0.100)	0.965	(0.090)			
N	2976			2976			2976	

Source: National Latino and Asian American Survey.

Notes: Standard errors in parentheses.

All models control for gender, marital status, age, age squared, number of children at home, physical health status, country of birth, educational attainment, household income, a dummy for top-coded household income, employment status, occupation, refugee status, length of residence in the United States, English ability, whether the immigrant's primary residence is in another country, possession of citizenship in the home country, and whether the respondent sends remittances to the home country.

∧
p<0.10
* p<0.05
** p<0.01

Table 6

Correlates of Four Outcomes with Transnationalism Interactions

	Satisfaction with US Economic Opportunity, OLS			Would Still Move, Logistic Regression		
	(1)	(2)	(3)	(4)	(5)	(6)
Ranks	b	SE	b	SE	Odds ratio	SE
Rank in US as a whole	0.131**	(0.018)	1.444*	(0.210)		
Rank in US as a whole*returned to home country last year	0.006	(0.026)	0.710^A	(0.129)		
Rank in US as a whole*remit	-0.005	(0.023)	0.713*	(0.122)		
Rank in US as a whole*primary residence is home country	-0.057^A	(0.030)	1.079	(0.196)		
Rank in country of origin			-0.007	(0.017)	0.905	(0.129)
Rank in country of origin*returned to home country last year			-0.000	(0.027)	0.789	(0.166)
Rank in country of origin*remit			-0.007	(0.023)	0.948	(0.176)
Rank in country of origin*primary residence is home country			-0.016	(0.033)	0.869	(0.184)
Constant	4.250**	(0.141)	4.137**	(0.143)	301.9***	(351.686)
N	2976		2976		2976	2976
	Depression in Past Month (Reverse Coded), Ordered Logistic Regression			Self-Reported Mental Health, Ordered Logistic Regression		
	(5)	(6)	(7)	(8)		
Ranks	Odds ratio	SE	Odds ratio	SE	Odds ratio	SE
Rank in US as a whole	1.252**	(0.080)	1.250**	(0.070)		
Rank in US as a whole*returned to home country last year	0.836*	(0.075)	0.981	(0.078)		
Rank in US as a whole*remit	0.882	(0.073)	0.903	(0.065)		
Rank in US as a whole*primary residence is home country	1.002	(0.105)	1.038	(0.100)		
Rank in country of origin			1.274**	(0.074)	1.145**	(0.060)
Rank in country of origin*returned to home country last year			0.877	(0.080)	1.037	(0.085)
Rank in country of origin*remit			0.916	(0.072)	0.960	(0.067)

Rank in country of origin*primary residence is home country	0.867	(0.094)	0.880	(0.089)
N	2976	2976	2976	2976

Source: National Latino and Asian American Survey.

Notes: Standard errors in parentheses.

All models control for gender, marital status, age, age squared, number of children at home, physical health status, country of birth, educational attainment, household income, a dummy for topcoded household income, employment status, occupation, refugee status, length of residence in the United States, English ability, whether the immigrant's primary residence is in another country, possession of citizenship in the home country, and whether the respondent sends remittances to the home country.

- ^ p<0.10
- * p<0.05
- ** p<0.01

Appendix 1

Description of Variables and Weighted Means

Definition	Total		Vietnamese		Filipino		Chinese		Other Asian		Cuban		Puerto Rican		Mexican		Other Hisp		
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	
<u>Outcome variables</u>																			
Satisfaction	4.14	0.67	3.99	0.74	4.26	0.56	3.95	0.63	4.01	0.63	4.32	0.71	4.19	0.70	4.21	0.65	4.14	0.71	0.71
Would move	0.93	0.25	0.96	0.19	0.94	0.24	0.92	0.27	0.89	0.31	0.97	0.17	0.92	0.27	0.94	0.23	0.93	0.26	0.26
Depression past month	4.40	0.86	4.57	0.89	4.54	0.63	4.29	0.81	4.51	0.73	4.28	1.02	4.11	1.02	4.45	0.80	4.34	0.96	0.96
Mental Health	3.75	1.05	3.60	1.12	4.00	0.90	3.52	1.00	4.14	0.92	3.79	1.12	3.70	1.07	3.55	1.08	3.99	0.97	0.97
<u>Subjective social standing</u>																			
Rank in country of origin	6.05	2.61	5.54	2.64	7.21	2.13	6.97	1.89	7.20	1.92	5.29	3.62	6.44	2.48	5.46	2.57	5.98	2.71	2.71
Rank in community	6.08	2.01	5.54	2.33	6.52	1.65	5.80	2.00	6.66	1.81	6.32	2.19	6.47	2.04	5.87	1.98	6.11	2.05	2.05
Rank in US as a whole	5.46	2.01	4.97	2.30	6.15	1.62	5.40	1.98	6.19	1.71	5.46	2.13	5.94	2.05	5.19	2.05	5.38	1.93	1.93
<u>Demographics</u>																			
Female	0.49	0.50	0.52	0.50	0.57	0.50	0.54	0.50	0.50	0.50	0.49	0.50	0.46	0.50	0.43	0.50	0.55	0.50	0.50
Cohabiting	0.72	0.45	0.76	0.42	0.77	0.42	0.73	0.44	0.75	0.43	0.66	0.48	0.56	0.50	0.77	0.42	0.64	0.48	0.48
Age	39.93	14.53	44.12	14.79	46.61	16.07	43.28	13.91	38.58	13.78	51.87	16.89	46.98	16.29	35.21	11.64	40.10	14.58	14.58
<u>Self-rated health status</u>																			
Poor	0.03	0.16	0.10	0.30	0.00	0.04	0.02	0.13	0.02	0.14	0.07	0.25	0.10	0.30	0.01	0.10	0.03	0.17	0.17
Fair	0.23	0.42	0.11	0.31	0.12	0.32	0.21	0.41	0.08	0.28	0.17	0.38	0.28	0.45	0.33	0.47	0.20	0.40	0.40
Good	0.31	0.46	0.32	0.47	0.34	0.48	0.41	0.49	0.32	0.47	0.29	0.45	0.23	0.42	0.30	0.46	0.30	0.46	0.46
Very good	0.26	0.44	0.30	0.46	0.36	0.48	0.27	0.45	0.33	0.47	0.23	0.42	0.21	0.41	0.20	0.40	0.29	0.46	0.46
Excellent	0.17	0.38	0.17	0.38	0.18	0.38	0.08	0.27	0.25	0.43	0.24	0.42	0.17	0.38	0.16	0.36	0.17	0.38	0.38
<u>Parental status</u>																			
One child	0.15	0.35	0.19	0.39	0.12	0.33	0.14	0.35	0.13	0.33	0.13	0.34	0.09	0.29	0.14	0.35	0.19	0.39	0.39
More than one child	0.22	0.41	0.14	0.35	0.16	0.37	0.10	0.30	0.15	0.36	0.05	0.23	0.08	0.27	0.36	0.48	0.16	0.36	0.36
<u>Economic factors</u>																			

Definition	Total			Vietnamese			Filipino			Chinese			Other Asian			Cuban			Puerto Rican			Mexican			Other Hisp			
	Mean	Std Dev	Std	Mean	Std Dev	Std	Mean	Std Dev	Std	Mean	Std Dev	Std	Mean	Std Dev	Std	Mean	Std Dev	Std	Mean	Std Dev	Std	Mean	Std Dev	Std				
Education	11.13	4.07	4.07	11.75	4.02	4.02	13.65	3.21	3.21	13.42	3.58	3.58	14.46	3.37	3.37	11.77	3.78	3.78	10.99	3.65	3.65	9.06	3.50	3.50	11.09	3.80	3.80	
Logged household income	3.12	1.40	1.40	3.18	1.49	1.49	3.55	1.61	1.61	3.32	1.67	1.67	3.50	1.52	1.52	2.98	1.42	1.42	3.12	1.32	1.32	2.90	1.22	1.22	3.10	1.32	1.32	
Household income topcoded at \$200,000	0.03	0.17	0.17	0.03	0.17	0.17	0.08	0.28	0.28	0.07	0.26	0.26	0.07	0.25	0.25	0.04	0.19	0.19	0.03	0.16	0.16	0.01	0.08	0.08	0.02	0.14	0.14	
Occupation																												
Other	0.18	0.38	0.38	0.23	0.42	0.42	0.15	0.36	0.36	0.18	0.38	0.38	0.19	0.39	0.39	0.16	0.37	0.37	0.16	0.37	0.37	0.20	0.40	0.40	0.12	0.33	0.33	
Operators	0.07	0.26	0.26	0.18	0.39	0.39	0.02	0.14	0.14	0.03	0.17	0.17	0.05	0.22	0.22	0.08	0.27	0.27	0.12	0.33	0.33	0.08	0.27	0.27	0.07	0.26	0.26	
Trades	0.10	0.30	0.30	0.09	0.28	0.28	0.05	0.21	0.21	0.06	0.24	0.24	0.02	0.14	0.14	0.12	0.32	0.32	0.06	0.24	0.24	0.14	0.35	0.35	0.11	0.31	0.31	
Service	0.08	0.28	0.28	0.08	0.27	0.27	0.09	0.29	0.29	0.06	0.24	0.24	0.04	0.20	0.20	0.05	0.22	0.22	0.11	0.31	0.31	0.08	0.28	0.28	0.12	0.32	0.32	
Customer service	0.08	0.27	0.27	0.06	0.24	0.24	0.07	0.25	0.25	0.06	0.23	0.23	0.08	0.28	0.28	0.06	0.24	0.24	0.14	0.35	0.35	0.08	0.27	0.27	0.09	0.28	0.28	
Office clerks	0.04	0.20	0.20	0.03	0.17	0.17	0.08	0.27	0.27	0.09	0.29	0.29	0.04	0.20	0.20	0.04	0.19	0.19	0.05	0.22	0.22	0.02	0.15	0.15	0.04	0.20	0.20	
Associate professional	0.06	0.24	0.24	0.07	0.26	0.26	0.15	0.36	0.36	0.07	0.25	0.25	0.10	0.30	0.30	0.05	0.23	0.23	0.07	0.25	0.25	0.03	0.17	0.17	0.06	0.24	0.24	
Professional	0.09	0.29	0.29	0.08	0.27	0.27	0.22	0.41	0.41	0.25	0.43	0.43	0.25	0.43	0.43	0.08	0.27	0.27	0.04	0.20	0.20	0.02	0.13	0.13	0.07	0.25	0.25	
Corporate manager	0.05	0.22	0.22	0.02	0.15	0.15	0.05	0.21	0.21	0.09	0.29	0.29	0.13	0.34	0.34	0.05	0.22	0.22	0.01	0.10	0.10	0.03	0.16	0.16	0.05	0.23	0.23	
Routine tasks	0.16	0.37	0.37	0.1	0.29	0.29	0.05	0.21	0.21	0.08	0.27	0.27	0.05	0.23	0.23	0.15	0.36	0.36	0.14	0.35	0.35	0.26	0.44	0.44	0.15	0.35	0.35	
Not stated	0.07	0.26	0.26	0.05	0.22	0.22	0.08	0.27	0.27	0.04	0.20	0.20	0.04	0.20	0.20	0.16	0.37	0.37	0.10	0.30	0.30	0.06	0.24	0.24	0.11	0.32	0.32	
Labor force status																												
Unemployed	0.07	0.25	0.25	0.09	0.28	0.28	0.05	0.22	0.22	0.06	0.24	0.24	0.07	0.25	0.25	0.04	0.21	0.21	0.04	0.20	0.20	0.06	0.24	0.24	0.09	0.29	0.29	
Not in labor force	0.29	0.45	0.45	0.29	0.46	0.46	0.28	0.45	0.45	0.27	0.44	0.44	0.29	0.45	0.45	0.39	0.49	0.49	0.43	0.50	0.50	0.28	0.45	0.45	0.25	0.43	0.43	
Immigration Factors																												
Noncitizen	0.59	0.49	0.49	0.28	0.45	0.45	0.34	0.48	0.48	0.41	0.49	0.49	0.50	0.50	0.50	0.46	0.50	0.50	0.02	0.13	0.13	0.81	0.39	0.39	0.62	0.49	0.49	
Length of US Residence																												
Less than 5 years	0.18	0.38	0.38	0.17	0.38	0.38	0.15	0.36	0.36	0.17	0.37	0.37	0.24	0.43	0.43	0.20	0.40	0.40	0.06	0.23	0.23	0.19	0.39	0.39	0.17	0.37	0.37	
5 to 10 years	0.16	0.37	0.37	0.25	0.44	0.44	0.11	0.32	0.32	0.17	0.38	0.38	0.12	0.32	0.32	0.15	0.36	0.36	0.09	0.29	0.29	0.17	0.38	0.38	0.17	0.37	0.37	
11 to 20 years	0.32	0.47	0.47	0.30	0.46	0.46	0.33	0.47	0.47	0.37	0.48	0.48	0.31	0.47	0.47	0.09	0.29	0.29	0.21	0.41	0.41	0.34	0.47	0.47	0.36	0.48	0.48	
More than 20 years	0.34	0.47	0.47	0.27	0.45	0.45	0.40	0.49	0.49	0.29	0.45	0.45	0.33	0.47	0.47	0.56	0.50	0.50	0.64	0.48	0.48	0.30	0.46	0.46	0.31	0.46	0.46	
Refugee	0.31	0.46	0.46	0.16	0.37	0.37	0.31	0.46	0.46	0.34	0.47	0.47	0.28	0.45	0.45	0.67	0.47	0.47	0.30	0.46	0.46	0.28	0.45	0.45	0.33	0.47	0.47	
English speaking ability																												

Definition	Total		Vietnamese		Filipino		Chinese		Other Asian		Cuban		Puerto Rican		Mexican		Other Hisp		
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	
Poor	0.39	0.49	0.37	0.48	0.03	0.18	0.25	0.43	0.06	0.24	0.52	0.50	0.24	0.43	0.59	0.49	0.39	0.49	
Fair	0.26	0.44	0.38	0.49	0.21	0.41	0.29	0.46	0.17	0.38	0.18	0.38	0.29	0.45	0.25	0.43	0.29	0.45	
Good	0.22	0.42	0.17	0.38	0.42	0.49	0.32	0.47	0.44	0.50	0.18	0.38	0.34	0.47	0.11	0.31	0.22	0.42	
Excellent	0.13	0.33	0.08	0.27	0.34	0.47	0.13	0.34	0.33	0.47	0.12	0.33	0.14	0.35	0.06	0.23	0.10	0.30	
Transnationalism Factors																			
Primary residence is in country of origin	0.21	0.41	0.05	0.22	0.15	0.36	0.07	0.25	0.18	0.39	0.08	0.27	0.20	0.40	0.33	0.47	0.18	0.39	
Frequency of return to origin last year																			
No times	0.70	0.46	0.84	0.37	0.70	0.46	0.64	0.48	0.66	0.48	0.87	0.33	0.77	0.42	0.68	0.47	0.70	0.46	
Once	0.21	0.41	0.15	0.35	0.25	0.43	0.30	0.46	0.31	0.46	0.11	0.32	0.13	0.34	0.17	0.38	0.26	0.44	
Twice	0.04	0.19	0.01	0.12	0.04	0.19	0.04	0.20	0.03	0.16	0.01	0.10	0.05	0.23	0.06	0.23	0.03	0.16	
Three or more times	0.04	0.20	0.00	0.03	0.02	0.12	0.02	0.14	0.01	0.09	0.00	0.07	0.05	0.21	0.09	0.29	0.01	0.11	
Citizenship in home country	0.68	0.47	0.22	0.42	0.39	0.49	0.48	0.50	0.59	0.49	0.49	0.50	1.00	0.00	0.82	0.38	0.73	0.44	
Sends remittances	0.45	0.50	0.65	0.48	0.64	0.48	0.37	0.48	0.36	0.48	0.41	0.49	0.18	0.39	0.45	0.50	0.51	0.50	
N	2976		438		328		415		289		482		183		445		397		

Source: National Latino and Asian American Survey