EXPECTATIONS, FAMILY NETWORKS, AND EMIGRATION: A Study of Filipino Decision-Making

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This study examined the Filipino migration system involving Ilocos Norte, Metro Manila and the United States.

Baseline interviews were conducted with 1,744 adults from Ilocos, with a follow-up 30 months later to measure actual and intended migration behavior. It later focused on 177 US movers and 437 actual and intended Philippine stayers and movers within the Philippines. These were further given a 28-item scale of values previously associated with migration.

Data identified network support variables as the strongest predictor for migration behavior, that is, that US movers had relatives in the US to provide motivation, information, support and auspices to the Filipino imigrant. Such emphasized the Filipino's strong reliance on the family network and kinship ties. The study concludes with the suggestion to include cultural dimensions in models of migration decision-making.

In recent years, there has been an increase in the cognitive processes that underlie observed behaviors. This has been true in Psychology as well as in other fields. The realm of the subjective has gained a new respectability (Stryker, 1983), and the importance of subjective experience in accounting for behavior is now recognized. The image of the person as "blackbox" being buffeted about by environmental forces is no longer acceptable as *the* explanation for behavior. Instead, such concepts as attitudes, values, expectancies, self, schema, and scripts, to mention a few, are now discussed and used in the major psychology journals.

Psychological models are also finding their way into more and more applied areas of research. The confinement of model testing to the experimental laboratory is no longer viewed as the only way to validate theory. Population studies is one of the disciplines that has benefited much from psychological theory on attitude formation and the translation of attitudes into behaviors (e.g., Davidson et al. 1985). Studies on fertility, contraceptive choice, and migration have also analyzed decision-making, using variations of the subjective expected utility model or the Fishbein model (McHugh, 1980; De Jong and Fawcett, 1981).

Thus, the personal preferences underlying behaviors have increasingly become focal points of investigation. In the area of human migration, a theoretical basis for this has been provided by Zelinsky (1971), who proposed an historical transition in which the compulsions of survival and custom give way to a more individualistic orientation in modern societies. This formulation finds some empirical support in studies that examine migrant motivations in societies at different stages of development (Sell and De Jong,

1978; Hugo, 1981; Harbison, 1981).

The transition framework is also in accord with social psychological studies of modernity, which postulate a constellation of personal traits and changes in ways of perceiving, expressing, and valuing that become more prevalent as societies reach higher levels of development (Kahl, 1968; Inkeles and Smith, 1974). Among the traits that would suggest a more individualized calculus in making migration decisions are a sense of personal control over external events, a time orientation that is directed toward the future, and an enhanced degree of planfulness. Harbison (1981), however, cautions against drawing the conclusion that individual decision-making models may be appropriate only in modern societies. Citing Graves and Graves (1974:122), she implies that while the content may constrain the number of options available and affect the perception of such options, it is still the individual who decides on a course of action.

Another factor that has stimulated interest in personal preferences as a determinant of migration has been the changing pattern of mobility behavior in the United States and some highly developed countries. Recent studies have highlighted the importance of amenities, such as climate and recreational opportunities, for the spatial mobility of middle-class Americans. The "sun-belt" migration phenomenon, together with other evidence on factors affecting residential mobility, suggest that migration cannot be adequately accounted for by models that are derived essentially from labor market considerations (McHugh, 1985; Christenson et al.. 1983; Roseman, 1983).

The expanding disciplinary base for migration studies is a further element in the enhanced attention to individual-choice models. Psychologists, who have long been involved in studies of migrant adaptation, have more recently developed models of migration decision-making (de Jong and Fawcett, 1981; Haberkorn, 1981). Further, psychological theories have been adopted by researchers from other disciplines, especially geography, for application in analyses of migration behavior (Desbarats, 1977, 1983; McHugh, 1984). A number of sociologists also lean toward a social-psychological framework, some producing studies and models that focus explicitly on the costs and benefits of migration to the individual (Bogue, 1977; Sell & De Jong, 1978). In economics too, there has been an increasing interest in individual choice models, usually employing variants of the "New Home Economics" approach (DaVanzo, 1981).

The microlevel interests of researchers have sometimes been reinforced by the policy concerns of national planners. Migration behavior has proved problematic for those whose interest lies in redirecting migration flows to achieve broader public policy goals. By and large, policies that have used various institutional or economic incentives and disincentives to alter movement behavior have not been effective (Fuchs, 1983). Thus, planners have looked for more direct ways to influence migration decisions, such as through information or persuasion programs tailored to the motivations of migrants, as revealed by pertinent research (Fuller, 1979).

The present social-psychological study is part of larger project (the Philippine Migration Study, or PMS) that has examined three points in a migration system and the various linkages between these points. The system comprises a rural province (Ilocos Norte) in a high out-migration area of the Philippines, the major urban destination area in the Philippines (Metro Manila), and the most popular overseas destination for emigrants from the Philippines (the United States). A series of surveys was conducted in all three areas to provide both cross-sectional and longitudinal

data on the dynamics of this migration system.

This study is also designed to test a value-expectancy model of emigration. General features of the model are described in De Jong and Fawcett (1981). Details of the present research framework are presented below, together with a discussion of how this study differs from the previous works cited, some of which have also examined the value-expectancy model of migration.

METHODOLOGY AND RESEARCH FRAMEWORK

Research Framework and Sample

The study employs a prospective research framework. The initial round of data collection in Ilocos Norte, the Philippines, covered a wide variety of topics relevant for analysis of the determinants of migration. This baseline survey consisted of face-to-face interviews with 1,340 adults in 575 randomly selected households, supplemented by a purposively-selected oversampling of 404 adults who intended to move away from the province of Ilocos Norte (total N = 1,744). A follow-up survey approximately 30 months later measured actual migration behavior in the households contacted in the first survey and, for individuals who had not moved, their intention to do so in the future.

The sample obtained for the overall study has been selectively reduced in order to narrow the focus of the present analysis. The following goals were achieved through sample reduction: (1) to concentrate the analysis on people who could be considered as *potential emigrants,* by virtue of having relatives in the U.S., and (2) to deal only with *international* migration to the United States. These procedures eleminated 179 respondents from the baseline survey who could be classified as either U.S. movers or nonmovers, and another 981 respondents who were not reinterviewed, whose intentions to move to the U.S. had changed, who intended to move to an international destination other than the U.S., or who had moved only within their own home regions.

The rationale for identifying a sample of potential emigrants has both theoretical and practical aspects. A decision-making model should be useful mainly in situations where there are not strong external constraints on choice. In the case of U.S. migration, such a constraint is reflected in the laws and procedures governing admission to the country. Persons who have close relatives in the U.S. are not as likely to face a legal constraint, because they can be petitioned based on a family relationship, or, if that route is blocked, they might be eligible for petition to work in a relative's business. As a practical matter, very few Filipinos are currently admitted who do not have relatives in the U.S. Since our goals was to test a decision model, it seemed appropriate to restrict our sample to persons who had one or more adult relatives in the United States.

The dependent variable in this study is dichotomous. Respondents are regarded as U.S. movers if they actually moved to the United States between the baseline survey and the follow-up survey *or* if they stated an intention to move to the U.S. in both the baseline survey and the follow-up survey. Henceforth, both U.S. movers and intended mover will simply be referred to as "movers." The number of U.S. movers, by this definition, is 177. Contrasted with these U.S. movers are all other respondents (except those who moved or intended to move to a foreign destination other than the U.S., who were deleted from the analysis). The N for this second group, which consists of actual and intending stayers and movers within the Philippines, is 437. This second group will be referred to as the "nonmovers." The total sample size for this analysis is therefore 584. The "movers"

are coded 1 and the "nonmovers" are coded 0 in this paper.

Value-Expectancy Model

The value-expectancy model used in this study formalizes the following observation about human behavior: that people tend to behave in ways that will provide them with whatever it is that they value most. Carrying that a step further, the model adds the refinement that people behave in ways that they *expect* will provide valued outcomes. To obtain relevant value-expectancy measures, a 28-item scale was developed that tapped, on a prima facie basis, the dimensions identified by De Jong and Fawcett (1981) as covering the major values or goals that had been shown in the research literature to be associated with migration.

Table 1 reproduces the value-expectancy instrument, which was administered to Ilocos Norte residents using a special card sorting technique, in conjunction with face-to-face interviews. When the V-E section of the interview was reached, the interviewer provided the respondent with a deck of cards. Each card contained the text of one value statement. (All cards were printed in the Ilokano dialect, and the interviews were likewise conducted in Ilokano). The interviewer then laid out three heading cards, labeled "Extremely Important," "Very Important," and "Somewhat Important." The respondent was asked to sort the 28 cards into three piles, according to how important each value was to him or her personally.

Next, the respondent rated the chances for achieving each value in each of three locations: the home *barrio* (village or urban neighborhood); Manila; and Hawaii. These subjective ratings were characterized as "High," "Medium," and "Low" chances for attainment of each value, for each place. Altogether, respondents completed a total of 112 V-E ratings: 28 importance ratings for the values, and 84 expectancy ratings for attaining each value in each of the three places. Although the description may make the above rating task seem tedious, it is reassuring to know that "Pretest results, confirmed in the actual survey, show that majority of the respondents enjoyed this part of the interview" (Abad & Cariño, 1981: 36).

Table 1. Value-Expectancy Instrument

Instructions for VALUES: Here is a list of goals or values that some people consider important. I want to know how important these things are to you personally. Please tell me if you consider these very important, fairly important or not important.

(READ 1st VALUE: CONTINUE DOWN LIST OF VALUES)

Instructions for EXPECTANCIES: Thinking about the future, I want you to assess how things would be if you were to stay in this barangay, you were to move to Manila or you were to move to Hawaii. For example, would you say your chances of having a peaceful life in this barangay are high, medium or low? In Hawaii are the chances high, medium, or low?

For purpose of analysis, such multiple ratings are usually reduced to a smaller set. In value-expectancy models, a common formula uses the sum of the products of value-expectancy pairs: $\sum ViEi$. A single score is thus produced for each rated location, which may be interpreted as a strength of intention or desire to be in that location. Other things being equal, the person would be predicted to move to (or stay in) the highest-scoring

(CONTINUE DOWN LIST OF VALUES)

Very Important	Fairly Important	Not Important	VALUES	Barangay H M L	Manila H M L	Hawaii H M L
			1. Having a peaceful life.			
			2. Having a prestigious job.			
			3. Living in a community that is a good place to raise children.			
			4. Having a job that is not too strenuous.			
			...			
			27. Having comfortable housing.			
			28. Saving money.			

location. This composity-score model has been used in previous anlayses with the PMS data, using various models to predict both internal and international migration behavior (De Jong et al. 1983; De Jong et al. 1985/1986;), and repeat migration (Arnold, 1987). Composite V-E Scores were shown to be significant in the models for predicting both internal and international intentions to move, although this was no longer the case when actual behavior was being predicted. Models incorporating facilitators and constraints to migration have been developed to account for the discrepancy between behavioral intentions and actual behavior (e.g., Desbarats, 1977, 1979, 1983; Gardner, 1981; McHugh, 1983, 1984).

For the present study, the research design calls for prediction only of migration to the U.S. Further, the V-E results are disaggregated into a set of subscale score, reflecting different motivational dimensions. The subscales were developed by factor analyzing the 28-item intercorrelation matrix, with application of an oblique rotation technique. The resulting subscales are shown in Table 2, along with their reliability coefficients. The subscales incorporate 22 of the 28 items adminstered. Their content may be summarized as follows:

Ideal Life – reflects a general factor, drawing upon itemsdealing with economic status, morality, social status, and community integration;

Wealth – reflects affluence and economic stability;

Comfort – reflects the safety, comfort, and healthfulness of the immediate environment;

Ease – reflects mainly a peaceful life and a non-strenuous job, plus elements of status and morality;

Network – reflects mainly family and so cial networks.

As discussed in an earlier paper by Sycip (1986), it might be more informative to analyze the V-E indices by their separate subscales, rather than as a total composite score. This would allow a consideration of the possibility that although the overall index for a place may be lower than for other places, certain types of people may still intend to move there if they are only concerned with the realization of a few salient values on which the place has been rated highly. The findings by Gardner et al. (1981) indicate that this approach could help to clarify findings that seem contrary to what the V-E model would predict. For example, they found that although Manila had the lowest V-E composite score, respondents still intended to move there on a temporary basis to achieve specific goals, such as getting an education.

Table 2. Reliability Coefficients for VE Scales, Standardized Item Alphas

Scales	*Over-all Sample (N = 1744)*	*U.S. Migration Subsample (N = 584)*
VE Wealth	.6343	
V408 Having a high income		
V410 Moving up in the world		
V419 Having a regular, stable income		
V427 Saving money		
VE Ideal	.6465	
V413 Being economicaly independent		
V414 Practicing your religion		
V420 Having a feeling of "belonging" in the community		
V421 Having a high standard of living		
V422 Being looked up in the community		
VE Comfort	.6729	
V411 Being in a pleasant neighborhood		
V416 Living in a healthful environment		
V418 Living in a safe neighborhood		
V424 Living in a familiar environment		
V425 Having a lot of friends		
VE Ease	.5130	
V400 Having a peaceful life		
V401 Having a prestigious job		
V402 Living in a community that is a good place to raise children		
V403 Having a job that is not too strenuous		
VE Network		
V404 Having people to rely on in times of need		
V405 Being able to meet a variety of people		
V406 Having freedom to do what you want		
V407 Living near friends and relatives		

Ladder Scales

Another subjective scaling method was used to obtain ratings of places, without reference to the respondents own values or goals. This technique employed a picture of a ladder, with the top step labeled as number 10, "the best possible condition," and the bottom step labeled number 1, "the worst possible condition." Ladder ratings were also obtained for the three places of Ilocos Norte, Metro Manila, and Hawaii. Each place was rated on the following five dimensions: wages, friendliness of people, variety of enjoyable things to do, availability of jons, and moral climate. These dimensions were meant to parallel several of the value statements used in the V-E analysis (Abad and Carino, 1981).

Socio-Demographic Variables

The value-expectancy scales and the measures obtained from the ladder items are not only used to predict migration on their own; they are also part of a larger model that

incorporates socio-demographic factors, which provide the context for migration decisions. Economic status of the migrant, for example, is obviously important as a constraint or as a facilitator of migration. Likewise, having relatives at a potential destination is significant, because they are a trusted source of information and are likely to be willing to provide help upon the migrant's arrival. For international migration, relatives may also play the essential role of legal sponsor for admission of the new immigrant.

The potential migrant's own characteristics can also add significantly to understanding of the decision process. Those who are young and single have fewer ties to the home place, for example, while those who are more educated may expect a better return on their educational investment in a place with more diverse job opportunities. Such relationships, which may be formulated as hypthoses based on group parameters, suggest a mode around which variations may occur as a function of value orientations or other psychological orientations.

Variables in the Model

For the multivariate analytical model used in this study, the V-E scales and the ladder scales are used in two blocks of predictor variables (see Table 3). Block 1, Economic Expectations, includes the V-E wealth scale and the ladder scales for wages and availability of jobs. Block 2, Psychological Expectations, includes the V-E scales for network, ease, comfort, and ideal, plus the ladder scales for variety of enjoyable things to do, friendliness of people, and moral climate.

Table 3 .Description of All Variables in the Final Model

Dependent Variable

INDXUS2 Index for U.S. immigration.

Dichotomy: O = stayers, intended stayers, intended Philippine movers, Philippine movers; 1 = U.S. movers, intended U.s. movers for both the IBS (Ilocos Baseline Survey) and the IRS (Ilocos Reinterview Survey)

Independent Variables

Block 1 : Economic Expectations

1. VE Wealth : Value expectancy index for wealth, difference score for Hawaii and barangay (VE for Hawaii minus VE for barangay, for all VE indices).

2. DIFFWAGE: Difference in ladder ratings for Hawaii and Ilocos on wages (Hawaii rating minus Ilocos rating, for all ladder indices).

3. DIFFJOBS : Difference in ladder ratings for Hawaii and Ilocos on availability of jobs.

Block 2 : Psychological Expectations for U.S. Destination

4. VE Network : Value expectancy index for social networks, difference score for Hawaii and barangay.

5. VE Base: Value expectancy index for ease of living, difference score for Hawaii and barangay.

6. VE Comfort : Value expectancy index for comfortable life, difference score for Hawaii and barangay.

7. VE Ideal : Value expectancy index for ideal life, difference score for Hawaii and barangay.

8. DIFFVARIETY: Difference in ladder ratings for Hawaii and Ilocos on variety of enjoyable things to do.

9. DIFFRIENDLY: Difference in ladder ratings for Hawaii and Ilocos on friendliness of the people.

10. DIFFMORALITY: Difference in ladder ratings for Hawaii and Ilocos on moral climate.

Block 3 : Relative Economic Status at Origin

11. INCOME: R's percentile rank on the income distribution for individuals in the sample (based on the total sample of 1744 cases).

12. HHFIN: Respondent's and interviewer's summed ratings of household's financial condition relative to other households in the area. Item ratings

were as follows: 1 = far worse, 2 = slightly worse, 3 = about the same, 4 = slightly better, 5 = far better.

13. CONSUMER: R's percentile rank on the distribution of the number of consumer items in the household, including piped-in water (based on N = 1744)

Block 4: Background/Lifecycle Variables

14. Age: R's age on last birthday (in years).

15. Education: Highest grade attained by R, coded as follows: 0 = no schooling, 1 = elementary, 2 = high school, 3 = vocational, 4 = college and up.

16. Sex: Dummy coded variable; 0 = female, 1 = male.

17. Status: Dummy coded variable for marital status: 0 = married; 1 = single, widowed, separated.

Block 5: Network Support Variables

18. SUBJNORM: Mean approval rating for 4 items on R's perception of how people feel about outmigrants; item ratings as follows: 1 = strongly disapprove, 2 = somewhat disapprove, 3 = don't know/indifferent, 4 = somewhat approve, 5 = strongly approve.

19. AUSPUSN: Number of places in the U.S. with auspices (relatives or friends who could provide a place to stay or help in finding a job).

20. ADULTREL: Number of adult family members and relatives who live in the U.S.

Block 3, Relative Economic Status at Origin, combines three measures of the actual and perceived economic status of the respondent and the respondent's household.

Block 4, Background/Life Cycle Variables, contains standard measures of the respondent's age, education, sex, and marital status.

Block 5 covers Network Support Variables. These include the number of places in the U.S. where the respondent has friends or relatives who could provide auspices for housing or employment; the number of relatives of the respondent who live in the U.S.; and a summary score reflecting the respondent's perceptions of how significant others evaluate outmigration behavior.

This analytic design, using both OLS and logit regression, will allow interpretation of the predictive block when different combinations of other factors are taken into acoount. Before presenting the multivariate results, however, we examine the variables upon which the analysis is based.

RESULTS

Basic descriptive statistics are shown in Table 4. Means and standard deviations of the variables in the model are presented for both U.S. nonmovers and movers. Variables that distinguish significantly between the two groups are also indicated. While the psychosocial, economic, and network blocks have at least some significant variables, none of the demographic or background variables significantly distinguish between these two groups on this level of pairwise comparisons.

Table 4. Means of All Variables Considered by INDXUS2

Variables	U.S. Nonmovers (N = 407)	U.S. Movers (N = 177)
Economic Expectations		
VE Wealth**	1.06	1.60
TODARO#	5.45	5.47
DIFFWAGE	3.52	3.82
DIFFJOBS*	3.50	4.03
EXPTNBGY#	1.57	1.56
Psychosocial Expectations for U.S. Destination		
VE Network*-	1.16	-0.76
VE Ease**	-0.22	0.37
VE Comfort	-1.34	-1.08
VE Ideal	-0.33	-0.15
DIFFVARIETY**	2.83	3.64
DIFFRIENDLY	-1.33	-0.89
DIFFMORALITY	-0.58	-0.50

HICAL#	16.64	17.24
Relative Economic Status at Origin		
INCOME	55.46	56.71
HHFIN*	6.30	6.88
CONSUMER**	58.59	72.91
Background/Lifecycle Variables		
Age	35.45	37.52
Education	2.07	2.14
Sex	0.43	0.49
Status	0.37	0.35
Network Support Variables		
Ties to IN#	1.59	1.61
SUBJNORM**	3.39	3.73
AUSPUSN**	0.36	0.88
ADULTREL**	2.27	3.55

*t significant at $p < .05$

**t significant at $p < .01$

#These variables were eliminated from the final model because they did not show any appreciable effects on the model's ability to predict migration to the U.S., probably due to the absence of any real variability in their distributions. These variables included expected financial condition of Hawaii movers, expectation for the barangay's condition five years hence, summed ladder ratings for Hawaii and California as desirable places to live, and the closeness of respondent's ties to relatives living in Ilocos Norte.

The four V-E scales that tap psychological values (network, ease, ideal, and comfort) are moderately intercorrelated, with correlations ranging from .44 to .64. The V-E wealth scale is different from the four other psychological scales. It is most strongly related to the ease and ideal scales (.39), but is only slightly related to the network (.14) and comfort (.17) scales.

Other relatively strong relationships are those between education and the following variables: age (-.46), relative household economic status (.35), and number consumer items (.41.). Older respondents have less formal education, while those with more education are better off economically. Moderate relationships include those between income and relative household economic status (.58), age and marital status (-.48, negative because marriage is coded), wages and availability of jobs (.48), wages and variety of enjoyable things to do (.44), availability of jobs and enjoyable things to do (.40), and friendliness of the people and moral climate (.48). In general, the level of correlations between variables in the model is rather low.

OLS Regressions

Table 6 contains the OLS regression results for the final model (using the SPSS-X regression procedure). The standardized betas are presented and those with significant t-values are highlighted. The results are indicated for each stage of the regression as each of the five blocks of variables are entered.

In terms of economic expectations, both U.S. movers and nonmovers perceive that Hawaii presents better economic opportunities than their hometown. U.S. movers, however, perceive Hawaii much more positively than the nonmovers with regard to being able to realize wealth-related outcomes (i.e., having a stable and high income, saving money, moving up in the world) and having more jobs available.

For noneconomic psycho-social expectations, both movers and nonmovers rate Hawaii more negatively than their hometowns on V-E scales such as network, ideal, and comfort. Hawaii was also rated more negatively in terms of friendliness of the people and moral climate. It was only viewed more positively in terms of having a greater variety of enjoyable things to do. U.S. movers, however, tended to view Hawaii less negatively than did the nonmovers, especially with regard to social networks. Movers also viewed Hawaii more positively in terms of ease of living. In short, although Hawaii was

Table 5. Determinants of Migration to the United States: Maximum Likelihood Logit Estimates (N = 584)

Determinants	betas	Chi-Squares
Economic Expectations		
VE Wealth	.08	1.40
Wages (Hawaii v. Ilocos)	.00	0.00
Availability of jobs	.04	0.51
Psychosocial Expectations for U.S. Destination		
VE Network	.02	0.08
VE Ease	.16	3.36
VE Comfort	-.02	0.06
VE Ideal	.07	0.30
Variety of enjoyable things	.08	2.63
Friendliness of the people	.08	3.09*
Moral climate	-.10	4.34*
Relative Economic Status at Origin		
Income last 12 months	.00	0.01
Relative HH economic status	.15	2.05**
Number consumer items	.02	7.36**
Background/Lifecycle Variables		
Age last birthday	.01	0.46*
Educational attainment	-.28	5.38*
Sex (1 = Male)	.14	0.33
Marital Status (1 = Single)	.05	0.03
Network Support Variables		
Community approval migration	.37	9.40**
Auspices in U.S.	1.37	41.94**
Mature relatives in U.S.	.52	36.48**
Constant	-6.93	
R Square	.2460	
Maximum Likelihood Ratio	500.49	

* $p < .05$ ** $p < .01$

generally viewed more positively for the attainment of economic goals, the hometown was viewed as a better place for the realization of social and psychological goals. U.S. movers and intended movers, however, tended to emphasize the positive economic aspects of living in Hawaii, while downplaying the less desirable social and psychological ones.

Although both movers and nonmovers tended to have similar income distributions, movers tended to have more consumer items than nonmovers. Movers were also rated as having a slightly better relative household financial status. When these findings are viewed together with those on network support variables, a clearer idea emerges of just how important kinship and social networks are, not only to migration, but also to socio-economic status at the origin.

Movers have more adult relatives and family members in the U.S., and, as would be expected, there are likewise more places in the U.S where they have auspices present. It may be that the movers' relatively better household financial status can be traced to assistance they receive from their relatives abroad. With respect to their own resources, however (such as actual income earned), they are no better off than nonmovers.

Correlational Analysis

All the variables measured in the study were intercorrelated with one another.

The variables that have the strongest relationships with the dichotomous dependent variable are those involving network supports (number of adult relatives in the U.S. and number of places in the U.S. with auspices, both with an $r = .41$), and the socio-economic status measure involving the number of consumer items present in the household ($r = .25$).

The amount of variance explained by the first four blocks of variables is not very high (14 percent), and it is not until the addition of the fifth and final block of network support variables explain migration to the U.S. There is thus no doubt that the network support variables (especially the number of relatives and places in the U.S. with auspices) are largely responsible for the model's overall ability to predict migration.

The strong effect of network support variables is not unexpected. This finding is, however, made more significant by the fact that only respondents with at least one adult family member in the United States were included in this analysis. Thus, it is not just the presence or absence of networks that seems to be affecting movement to the U.S. Rather, it is more the number (and possibly the nature) of the linkages present. The number of adult relatives and the number of places in the U.S. with auspices were the two most significant variables in the model. The presence of relatives in the U.S. does not necessarily imply that one will have auspices upon moving to the U.S., however, as the correlation is only .30 for these two variables.

While economic and psychological expectations associated with the U.S. are significant at earlier stages in the regression, they drop out when the network support variables are added to the model. At the final stage of the regression, only two non-network variables retain their significance: the number of consumer items present in the household and educational attainment.

The negative Beta obtained for education was unexpected. Generally, education is positively related to migration, i.e., those with more education are more likely to migrate than those with less education. The results, however, show that those with less education are more likely to emigrate to the U.S., when other things are controlled for. Referring back to the single order correlation matrix (Table 5), it can be seen that education was positively related to the index for U.S. migration. Therefore, its relationship with other variables in the model is causing the negative Beta.

Further analyses showed that the Beta for education reversed its sign only when either the economic status or the network support variables were entered into the equation. This finding becomes more understandable in the context of migration from the Ilocos region of the Philippines to Hawaii.

Previous studies (e.g., Okamura, 1982; Caces, 1985) have shown that the Hawaiian economy does not really offer very good career prospects. Its major industry is that of tourism, which provides many openings in the service sector, but not very many opportunities for white collar or professional employment. The job market is also rather segmented, and various sectors are dominated by one or two of the more than eight ethnic groups found in Hawaii, making it difficulty for someone of a different ethnicity to enter them.

In the case of immigrants from the Philippines, many of them end up in the service sector, acquiring their jobs through their network linkages with relatives or friends who may already be working in the same sector (Caces, 1986/1987). Thus, those with less education might be more likely to migrate to Hawaii, as long as the network linkages are available to them. Those with relatives in the U.S. are also the ones who can better afford to move (e.g., they had a higher relative household economic status rating).

In summary, the results of the OLS regressions indicate that the most important determinants of migration to the U.S. involve network support variables. Expectations regarding various aspects of life in the U.S. (whether they be economic or psychological) seem to have only a small influence upon intentions to move or actual behavior. Economic status at the origin is also a significant determinant, but it appears that this is true mostly insofar as relative financial status is influenced by having relatives in the U.S. (e.g., through remittances that might be sent back home). This point is made clearer of adult relatives in the U.S., and the number of consumer items possesed by a household.

The number of adult relatives correlates only .05 with income, but .30 with consumer items.

Finally, educational attainment also affects whether a person moves to the U.S. or not, but its effect is not a direct one. Rather, it is more a function of the nature of the job opportunities present in the intended destination, and whether or not educational levels are consistent with the available jobs. Another factor to consider involves whether it is possible to get settled in the intended destination.

Table 6. Determinants of Migration to the United States: Ordinary Least Squares Estimates (Standardized Betas), Final Model (N=584)

Variables	Block 1	Block 2	Block 3	Block 4	Block 5
Economic Expectations					
VE Wealth	.11	.08	.08	.08	.05
DIFFWAGE	.01	-.03	-.02	-.02	-.00
DIFFJOBS	.08	.06	.03	.03	.03
Psychosocial Expecations for U.S. Destination					
VE Network		.07	.07	.07	.01
VE Ease		.07	.12	.12	.08
VE Comfort		.12	-.04	-.03	-.03
VE Ideal		-.06	-.01	-.02	.02
DIFFVARIETY		.12	** .11	.11	.07
DIFFRIENDLY		.06	.08	.07	.08
DIFFMORALITY		-.06	-.05	-.06	-.08
Relative Economic Status at Origin					
Income in the last 12 months			.02	.00	.00
Relative HH Economic Status			.08	.10	.06
Number of Consumer Items			.20	.24	.13
Background/Lifecycle Variables					
Age last birthday				.02	.04
Educational attainment				-.11	* -.10
Sex (1 = male)				.07	.04
Marital Status (1 =single, widowed, separated)				.01	.01
Network Support Variables					
Community Approval of Migration					.11
Auspices in the United States					.28
Adult Relatives in the United States					.26
Constant	.21	.22	-.19	-.22	-.54
R Square	.02	.06	.12	.14	.32

Logit Regressions

Lee (1985) has pointed out that when analyses involve a dichotomous dependent variable, the regression weights obtained using OLS are not directly interpretable. This is because the OLS analysis would allow one to predict values beyond 0 and 1 on the dummy coded variable. This would occur whenever values for independent variables were beyond their observed ranges for the specific data set. To correct for this, a logistic multiple regression can be performed wherein the values on the independent variables are converted into logs, and the analysis no longer fits a straight line, but rather a logistic curve which ensures that predicted values never go beyond 0 or 1.

In Table 5, it may be seen that the same variables are significant, with the addition of the ladder item on moral climate.

To make the logit regression more interpretable, the betas (maximum likelihood coefficients) were converted into actual probability values. That is, using the logit estimates, the likelihood of migrating to the U.S. was estimated when specific variables in the model took on values other than their mean, to which they were all initially set. In the case of continuous variables (i.e., the ladder item on moral climate differential between Ilocos and Hawaii, percentile ranking on the number of consumer items possesed, and perceived community approval of migration), the values chosen were either one standard deviation above or below their mean value. For categorical variables (i.e., educational attainment, number of places in the U.S. with auspices, number of adult relatives in the

Table 7. Changes in Overall Probability of Migrating to the United States With Changes in Significant Variables in the Model

With all variables set to their means, probability of migrating to the United States: .217		
Continuous Variables		
For Moral climate	= Mean + 1 S.D. :	.127
	Mean - 1 S.D. :	.271
For Number of consumer items	= Mean + 1 S.D. :	.300
	Mean - 1 S.D. :	.162
Categorical Variables		
For Education	= 0 (no schooling) :	.3308
	1 (elementary) :	.2727
	2 (high school) :	.2214
	3 (vocational) :	.1774
	4 (college +) :	.1406
For Auspices in the U.S.	= 0 :	.1202
	1 :	.3489
	2 :	.6776
	3 :	.8919
For Adult relatives in the U.S	= 1 :	.1042
	2 :	.1641
	3 :	.2491
	4 :	.3591
	5 :	.4862

Probabilities were computed using the formula below. Entries other than the specific one under investigation were all set to their mean values.

$$p = e^{B}/1 + e^{B}$$

where $B = B_0 + B_1X_1 = B_2X_2 + \ldots + B_pX_p$.

U.S.), the values chosen corresponded to actual categories on each of these variables. The direction and the amount of change in the base probability is an indication of the importance of the variable in the overall model. Probabilities are presented in Table 6.

When all variables in the model were set to their mean value, the probability of migrating to the U.S. was .217. When the significant variables in the model were assigned other values, this overall base probability also changed. Specifically, the probability increased with increases in the following variables: number of consumer items, perceived community approval of migraton, number of places in the U.S. with auspices, and the number of adult relatives in the U.S. Decreases in the following variables, however, resulted in an increased probability of moving: educational attainment and moral climate differential.

The effect of education has been explained previously. The moral climate differential deserves some clarification. The observed differential was negative and favored Ilocos. That is, respondents perceived Ilocos as having a better moral climate than Hawaii. The results, therefore, indicate that with a decrease in this differential , the likelihood of migration is increased.

The most substantial increases are accounted for by the two network variables involving auspices and adult relatives in the U.S. Of these two, it is the number of places with auspices that that really increases the likelihood of migrating to the U.S. Thus we note that the change in probability from having no auspices to having three places with auspices, other things being equal, is .77 (from .1202 to .8919) as compared with .42 for the change in the number of adult relatives from one to five (from .1042 to .4862). This once again points to the importance of networks in migration to the U.S. To summarize, respondents who have more consumer items, a greater perception of community approval for migration, less education, less of perceived difference in moral climate between Ilocos and Hawaii,

DISCUSSION AND CONCLUSIONS

This analysis was undertaken to ascertain the psycho-social and other determinants of immigration from the Ilocos region in the Philippines to the United States. The results have borne out previous findings regarding the importance of network support variables in this process (e.g., Harbison, 1981; Hugo, 1981; Massey and Espana, 1987).

It should be pointed out, however, that the network variables have such a powerful influence partly because they are related to so many of the other determinants that have traditionally been linked to migration. Thus we noted that the number of consumer items possessed by a household was linked to the number of adult relatives in the U.S., though not to income level. This relationship between relative socioeconomic status at the origin and having relatives abroad has been discussed elsewhere (e.g., Cariño, 1982, 1987). These two factors are linked through the mechanism of remittances from relatives who are abroad. Thus, the presence of networks in the U.S. greatly facilitates chances of migrating there vis-a-vis the material resources required to make the move. Psychological expectations may also operate through network variables in several ways. For example, expectations for the destination may be affected there (Hugo, 1981; Fawcett & Cariño, 1987). Potential migrants may also be more willing to forego the satisfaction of certain expectations if auspices are present in the selected destination. Or, conversely, it could also be that presence of relatives and auspices facilitate greatly the satisfaction of whatever expectations a migrant might have for the chosen destination.

Thus we noted that several of the psychosocial variables were significant in the earlier stages of the regression analysis, but dropped out with the entrance of the network variables. More specifically, the V-E scale on ease of living and the ladder item on variety of enjoyable things to do emerged early in the analysis. These variables seem to bear out the "bright lights" hypothesis of migration from less developed ones. These appear to be important determinants of migration, although the presence of relatives and auspices in the destination render them as less significant factors.

Perceived community approval of migration was a significant determinant of migration to the U.S. This finding is congruent with what would be expected, based on the Fishbein model which includes subjective norm as one of the determinants of behavioral intentions (Fishbein & Ajzen, 1975). Given the highly significant effects of the two network variables, however, perceived approval of migration may not be that crucial, as long as relatives or auspices are present in the intended destination.

Demographic variables, with the exception of educational attainment, were likewise not significant in this analysis. This is of interest since migration is usually selective with regard to age, sex, marital status, and education. It would appear, however, that when migration has become a community tradition, as it has in the Ilocos region (e.g., see Smith, 1981; Cariño, 1987), then such background factors lose much of their significance. That is, it is no longer the migrant's personal characteristics that are of primary importance, but rather membership in a social network that facilitates the migration process. Massey and Espana (1987;736) discuss how, once begun, international migration tends to expand outward through the social structure.

The same thing might be said for economic expectations at the destination. Perhaps it is not so much that the individual expects to do well economically, especially since most respondents had positive expectations for Hawaii anyway. Rather, it might be whether

or not there would be relatives and friends present who could be counted on for help and assistance, so that the economic opportunities present at the destination could be realized. This conclusion is congruent with other observations about the Filipino's strong reliance on family networks and kinship ties. (For a more detailed discussion, see Jocano, 1966; Tagle, 1974; Andres & Ilada-Andres, 1986, 1987; Church, 1986). Filipino behavior is not shaped as much by motivations for personal accomplishment as it is by calling upon network contacts to help in achieving a specified goal. Such observations suggest the importance of incorporating cultural dimensions into models of migration decision-making.

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