

NOTES AND COMMENT

PLANS TO OUT-MIGRATE AMONG RURAL YOUTH: A RESEARCH NOTE

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This study analyzes plans to out-migrate among a sample of high school seniors living in two rural settings of Southern Philippines. Plans to leave are related negatively to parental SES. Selectivity for academic ability varies significantly by ecological setting and parental SES, in conformance to a pattern hypothesized by Everett Lee's "Theory of Migration."

The board parameters of migratory behavior in the Philippines are by now well established (for reviews, see Abad 1981; Parez 1983; Palabrica-Costello 1987). The overall pattern of population redistribution is from rural to urban, with the National Capital Region and its environs now emerging as the major receiving area in the country. Northern and Southern Mindanao continue to be regions of net immigration, but this overall pattern largely stems from the rapid growth of Davao City and Cagayan de Oro, with most of Mindanao's rural areas now suffering net losses from the migration process. Increasing man-to-land ratios and glaring differences in living standards between urban and rural areas appear to underlie these overall trends.

Considerable knowledge has also accumulated to date on the personal characteristics of Filipino migrants. Young adults predominate, as do females, at least in streams from rural areas. Migrants are generally from higher status rural families and tend to be better educated than those left behind, thus leading to the claim that our rural areas are suffering from a "brain drain" of their most talented young people.

One topic which remains largely unexplored to date concerns the interplay between the macro-and micro-level factors mentioned above. That is, to what extent do patterns of migrant selectivity vary within different types of migrant streams? For example, is the brain drain more acute from relatively well-to-do rural settings or from the more depressed areas? The purpose of this paper is to address these sorts of questions, using data from a sample survey of 376 Southern Philippine high school seniors.

Everett Lee's well-known "Theory of Migration" suggest a number of useful hypotheses for a study of this type. According

to Lee, the decision to move depends upon a calculus involving four major factors: characteristics of the place of origin, characteristics of the place of destination, intervening obstacles, and the personal characteristics of the migrant himself. Areas with many negative characteristics (i.e. "push" areas) are likely to suffer from high rates of out-migration, whereas more prosperous regions ("pull" areas) will tend to attract more migrants than they repel. Furthermore, the positive selectivity of out-migrants is likely to be least in areas which are most push-like in character:

Migrants responding primarily to minus factors at origin tend to be negatively selected. . . . On the whole. . . factors at origin operate most stringently against persons who in some way have failed economically or socially. Though there are conditions in many places which push out the . . . highly creative, it is more likely to be the uneducated or the disturbed who are forced to migrate (Lee 1966: 56).

Other observers (Bogue 1961; Connell 1976) have argued in a like fashion. Relatively little empirical attention has been directed towards this topic, though. One early American study (Duncan 1956: 431) did note that out-migrants from impoverished areas of Oklahoma during the Great Depression were typically "those whose economic positions at home were most precarious and insecure." Browning and Feindt's (1969) analysis of Mexican migration data, however, failed to support this hypothesis. To date, no comparable study has been made using Philippine data.

The present study compares plans to out-migrate among a sample of rural youth along three major dimensions: area of origin, parental socioeconomic status, and academic ability. We expect out-migration intentions to be voiced

most frequently by students from the less economically prosperous area (e.g. Zachariah and Pernia 1975), by students from higher status homes (e.g. S. Lee 1985), and by students of above-average academic potential (the brain drain thesis). In line with E. Lee's suggestive hypothesis, however, we further expect that significant interaction effects will exist among these variables. These are that patterns of migrant selectivity by both parental socioeconomic status and academic ability will be positive in a more developed geographic area but negative in a "push" region. Arguing by extension we may also hypothesize that the selectivity of migrants by their level of academic ability will be positive among higher status respondents but negative among those from poorer homes.

Data and Methods

Data analyzed in this paper are taken from a survey study of high school seniors in the Southern Philippines which was carried out in 1980. Respondents were chosen by means of a simple random sample of all high school seniors within the project's four locales—Cebu City, Cagayan de Oro City, municipalities in Misamis Oriental, and the whole of Camiguin province. Only data from the latter two settings will be analyzed in this paper, however, in order to concentrate upon patterns of intended out-migration from rural areas.

Camiguin Island is frequently, and not incorrectly, represented as a perfect vacation setting for the harried urban professional. Its slow pace of life, hot springs, tropical beaches and beautiful scenery combine to make tourism a major local industry. For the typical Camiguinite, however, life is somewhat more grim. The island's remote location and over-dependence upon coconut in a time of falling copra prices have combined to keep average levels of living well below the poverty level. Infant mortality rates are higher than those found in the country as a whole, as well as those for the neighboring province of Misamis Oriental.¹ Farms are exceptionally small—by far the lowest in Northern Mindanao (Costello 1986)—and subject at that to low yields per hectare, since most are located on steeply sloping sides of one of the island's mountains. Prospects for attract-

ing large-scale industrial or commercial establishments to the province are also not good, owing to its remote location.

Given this economic setting, the province has suffered from a steady, and occasionally heavy, outflow of migrants, most of whom are in the young adult ages. Between 1948 and 1970, for example, the five municipalities of Camiguin actually declined in population size, losing over a fifth of their original population, while at the same time the twenty-four municipalities of Misamis Oriental grew by 29.7 percent (Republic of the Philippines, National Census and Statistics Office, 1974a and 1974b). Between 1970 and 1975 Camiguin had the highest level of out-migration among the seven provinces of Region X. Out-migration also continued between 1975 and 1980, whereas the municipalities of Misamis Oriental were experiencing a period of net in-migration at this time (Magtajas and Palasan 1983).

In contrast, life in the rural areas of Misamis Oriental has been somewhat more auspicious, although even here the problem of poverty is endemic. Municipalities throughout the province have benefitted from the construction, in the mid-1970s, of a concrete highway connecting Iligan City, Cagayan de Oro, Butuan, and Davao. There have also been spill-over effects from various Cagayan de Oro-based development projects for those municipalities which are located near this city, as well as the advantages which accrue to the agricultural sector in these locales, owing to their accessibility to the urban market. As a result, economic growth has been found to be significantly more rapid in the municipalities of Misamis Oriental during the period immediately preceding the present study, as compared to other provinces in Northern Mindanao (Costello 1988).

Based on the above considerations, we may hereby define our Camiguin respondents as living in a "less developed" rural area than those who were residing in the municipalities of Misamis Oriental.

Operational definitions of our other variables are given below:

1. Parental socioeconomic status was measured in terms of a twenty-item scale on ownership of consumer goods. These ranged from an umbrella up to a refrigerator and an automobile or truck.

2. Academic ability was quantified in terms of the student's score on the 1980 National College Entrance Exam (NCEE). Respondents have been dichotomized into those who passed the test—thereby gaining eligibility to enroll in college—and those who did not.

3. Plans to out-migrate are based upon the respondent's answer to the following question: "After you finish your education, do you plan to live permanently in the municipality where you are living now or move to some other place?"² Again, we have divided the respondents into two major categories: those

who plan to leave their home town and those who intend to stay.

Table 1 presents the basic data for the analysis, in the form of a four-variable contingency table. Our statistical analysis of these data will proceed by first investigating the zero-order (bivariate) associations implicit in this table, as then followed by an analysis of possible three-variable interaction effects. In cases where these prove negligible we will then proceed to re-examine the original two-variable relationships, in this instance holding constant all other independent variables found in the model.

Table 1. Basic Data for a Study of Migration Intentions of Rural Youth, Southern Philippines, 1980

Province	Parental S.E.S.	NCEE Score	Migration Stay	Intention Leave	Total
Misamis Oriental	High	Pass	27	30	57
		Fail	27	12	39
	Low	Pass	29	9	38
		Fail	35	17	52
Camiguin	High	Pass	18	25	43
		Fail	14	27	41
	Low	Pass	22	15	37
		Fail	27	42	69

No Response = 14

Total N = 390

Findings

Table 2 describes each of bivariate relationships implicit in the initial cross tabulation of our migration data. In the main, these associations are relatively weak, although most of fit the expected pattern. Thus, students from Camiguin do rank somewhat lower than those from rural Misamis Oriental with regard to both socioeconomic status and score on the NCEE. Neither of these relations achieves statistical significance, however.³ As for parental socioeconomic status and score on the college entrance exam, a positive correlation between these two variables is both expected and obtained, with the relationship in this case being highly significant statistically.

Bivariate relations involving migration intentions may now be particularly salient in this regard, with students from Camiguin being

considerably more likely than those from Misamis Oriental to plan on moving away from their home community. This fits well with the findings from previous studies, which have identified isolated and economically depressed rural areas as being especially prone to adolescent out-migration.

These also appears to be a tendency for out-migration intentions to be expressed most frequently by students from higher status homes. This relationships, which comes close to achieving statistical significance ($p < .10$), may be interpreted as showing that the option to migrate may be to some extent dependent upon the availability of pre-existing economic resources.

The lone relationship which fails to meet our original expectations comes with the (statistically insignificant) finding that students who failed to pass the college entrance exam were slightly more likely to plan on leaving. This finding

Table 2. Test for Significance (χ^2) and Measures of Association (Yule's Q) for all Bivariate Relationships found in Table 1*

Relationship	χ^2 (1 d.f.)	p	Q
Province and SES	2.06	n.s.	+15
Province and NCEE	3.04	n.s.	+18
SES and NCEE	11.27	<.001	+34
Province and Migration Intentions	16.34	<.001	-.40
SES and Intentions	3.67	n.s.	+.20
NCEE and Intentions	0.49	n.s.	-.07

* All variables dichotomized, with residence in Misamis Oriental, higher SES, passing scores on the NCEE and intention to out-migrate being scored positively for the computation of the Q-coefficient.

fails to support the "brain drain" thesis, but could conceivably be a spurious artifact, brought about by the greater propensity to plan on leaving home among the less academically able Camiguin respondents. A multivariate statistical treatment of the data would thus appear called for.

As a first step in this direction it will be necessary to test for the presence of interaction effects among our study variables. The multivariate chi-square technique cannot be used when such effects are present; thus, a formal test to this effect must first be made (Blalock, 1972: 308-310). In addition, three of our hypotheses relate directly to this issue. As such, this step of the analysis has theoretical, as well as methodological, significance.

The test for interaction used herein was developed by Leo Goodman (1965; also see Davis 1971: 99-103). It can be used to show instances in which the relationship between a pair of dichotomized variables varies significantly between two categories of a third factor.

The results of this analysis may be found in Table 3. As shown therein, the data do not support the fourth hypothesis. The relationship between socioeconomic status and out-migration intentions is positive for both the more developed rural setting (Misamis Oriental) and the less well-to-do Camiguin sample. To be sure, the relationship is somewhat stronger among students from Misamis Oriental, but this variation is nowhere near large enough to attain statistical significance.

Table 3. Tests for Three-Variable Interaction Effects Involving Intentions to Out-Migrate, Rural High School Seniors, 1980

Effect	Category for Control Variable	Q	χ^2 Test for Interaction (1.d.f.)
SES and MIGRATE, Controlling PROVINCE	Misamis Oriental	+31	0.54, p=n.s.
	Camiguin	+17	
NCEE and MIGRATE, Controlling PROVINCE	Misamis Oriental	+20	4.95, p<.05
	Camiguin	-.26	
NCEE and MIGRATE, Controlling SES	High	+13	5.31, p<.025
	Low	-.34	

Our fifth hypothesis holds that positive selectivity for academic ability will be significantly greater in the less economically depressed setting of Misamis Oriental. This prediction is fully supported by our data, with a pattern of positive selectivity emerging in Misamis Oriental, while negative selectivity prevails in Camiguin. The difference in Q coefficients between these two settings is significant at the .05 level of probability.

We have also predicted that positive selectivity for academic ability will be stronger among those students who come from higher status homes. This expectation is also confirmed by the study's data ($\chi^2 - 5.31, p < .025$).

The overall picture, then, is one in which the positive selection of more academically able students—the "brain drain" pattern—holds only for those coming from more well-to-do homes and the more developed geographic setting. In contrast, the opposite pattern appears to apply among adolescents who have been born into

lower status homes or who come from economically depressed "push" areas. Indeed, a further analysis of the data in Table 1 (not shown here) will demonstrate a statistically significant *positive* relationship between academic ability and plans to out-migrate among the subsample of 96 higher status Misamis Oriental students, as coupled with a statistically significant *negative* relationship among lower status respondents from Camiguin.

Given the above findings, we cannot assume an additive model for the relationship between academic ability and plans to out-migrate, thus making it impossible to compute for the partial correlation or multivariate chi-square values for this relationship, holding residence and parental socioeconomic status constant. We can neither confirm nor deny the brain drain thesis in any overall sense, but only point to the differential patterns that exist by area of origin and parental SES.

Table 4. Overall Tests of Significance and Partial Q Values for Out-Migration Intentions, High School Seniors, 1980

Independent Variable	Controls	χ^2 (4 d.f.)	p	Q
PROVINCE	SES,NCEE	22.02	<.001	-.42
SES	PROVINCE,NCEE	10.62	<.05	+.24
NCEE	PROVINCE,SES	n.a.*	-	-

* Not applicable, owing to the presence of significant interaction effects (see text).

In contrast, the assumption of additivity does hold for the relationships involving province of residence and parental SES. We may therefore proceed to test the impact of these factors upon out-migration intentions holding constant the other variables in the model (see table 4). Our data in this case confirm, in the first place, that out-migration intentions have been more frequently voiced among our Camiguin respondents, even when parental SES and NCEE score have been controlled statistically. The original relationship between parental socioeconomic status and intentions to out-migrate is also upheld, in this case attaining statistical significance at the .05 level of probability. We may therefore conclude that,

among rural high school seniors in the Misamis Oriental-Camiguin setting, higher status origins tend to encourage, rather than to limit, out-migration.

Discussion

Using data on a Southern Philippine sample of 1980 high school graduates, we have attempted to investigate the ways in which province of origin, parental socioeconomic status, and academic ability affect the young person's decision to move away from his home community. Our major findings may be summarized as follows:

1. Intentions to out-migrate are related strongly to province of origin, with these being voiced more frequently by students from the isolated and economically depressed province of Camiguin than among respondents from rural areas of Misamis Oriental.
2. Intentions to out-migrate are related positively, and significantly, to parental socioeconomic status.
3. The relationship between academic ability and intentions to out-migrate varies significantly according to province of origin and parental socioeconomic status. Positive selectivity prevails among those from more prosperous circumstances (Misamis Oriental, higher status homes), while the opposite pattern is found for those coming from Camiguin and from less well-to-do families.

These findings support previous thinking in the field, most notably Everett Lee's theory of migrant selectivity. They also may be of some use to policy makers who are concerned with the problem of stemming the outflow of rural youth from their home communities. The value of rural development schemes in retaining the populace of small towns and villages in the Third World is underscored by these findings, insofar as plans to leave were clearly higher for the setting in which economic prospects seemed most dim. Where jobs are scarce and chances for educational advancement virtually nil, it is only to be expected that a majority of youths will seek for "greener pastures."

Such are the short-run effects which may be expected from a genuine effort to bring development to the country's lagging regions. Over the long haul, however, somewhat different effects may well be noted. As rural incomes rise, young people will tend to do somewhat better in school (as shown by the positive association between parental SES and NCEE scores) and to aspire to higher levels of educational attainment. College tuition fees may now be seen as no longer impossible to afford and the positive correlations between parental SES and intentions to out-migrate which has been noted in this study may begin to take effect.

The academically talented young persons in such circumstances will therefore tend to gravitate to the urban setting, first as a university

student and then as an aspirant for a high-status, white collar job. Rural out-migration—due in this case more to "pull" factors than to the pre-existing "push" of rural poverty—will again accelerate. Note, however, that this latter phase—which may be expected to occur only after sometime has passed and the city's economy has benefited substantially from the increased demand for its services and products from a more prosperous rural hinterland—avoids the problems inherent in the "premature urbanization" model. As such, it is essentially a process to be welcomed, rather than impeded.

Also worthy of note are our findings with regard to academic ability. The much discussed "brain drain" pattern does not, it would seem, apply with equal force in all settings. Policies which have been designed with the aim of offsetting this problem should therefore be enacted more in relatively prosperous rural areas than in the most severely depressed regions, from which a heavy outflow of economically and academically marginalized migrants may be expected.

Notes

The research project from which the data analyzed in this paper have been taken was originally funded by the Council for Asian Manpower Studies (CAMS). The author would like to express his appreciation to CAMS for this support, as well as to the Department of Education, Culture and Sports, Region X, for granting access to the 1980 NCEE results.

¹ As of 1970, female infant death rates were estimated at 128.5 per thousand, as compared to 87.1 in the country as a whole and 96.2 in Misamis Oriental (Fliieger, Abenoja and Lim 1981, Table 16).

² Interviewing was carried out in the Visayan/Cebuano dialect; the above quotation is thus an English translation of the actual survey item.

³ Note that a separate analysis of the study data, which employed an expanded version of the residence variable and a somewhat more efficient statistical technique, did find statistically significant correlations in both of these instances (cf. Costello and Palabrica-Costello 1981, Table 24).

⁴ In order to carry out this test the investigator must first arrange the table so that the positively scored categories of each dichotomy are placed above (for

independent and control variables) or to the right (for the dependent variable) of the negatively scored categories. This insures that positive values for Q may now be interpreted as showing a direct relationship between two variables, while a negative value is indicative of an inverse relationship. That is, a positive Q coefficient implies that the category which has been scored positively on the first variable is associated empirically with the category scored positively on the second variable.

To illustrate, the categories "High SES," "pass" on the NCEE, and the declaration of an intention to migrate were all scored positively in the present study (see Table 1). In the case where SES is the control variable, NCEE score is the independent variable, and migration intentions is dependent we now have a three variable table with eight cells. Cells A, B, C and D are in the top half of the table, which consists of respondents with high SES levels, while cells E, F, G and H (in the bottom half of the table) are students from lower SES homes. Given this table design, cells A and E consist of NCEE passers who do not intend to leave, cells B and F are the NCEE passed who do plan to do so, cells C and G are nonpassers who plan to stay, and cells D and H are nonpassers who say they will be leaving.

We may now compute two "conditional" Q values. The first is for the top half of the table (Davis call this "Q_T") while the second "Q_{NOT T}") is for the bottom half.

Goodman's test for interaction is based upon a chi-square statistic with 1 degree of freedom where the numerator is $(Q_T - Q_{NOT T})^2$ and the denominator is: $[(1 - Q_T^2)^2 (1/A + 1/B + 1/C + 1/D) / 4] [(1 - Q_{NOT T}^2)^2 (1/E + 1/F + 1/G + 1/H) / 4]$.

In the present instance, A (number of cases in cell A) is equal to 45 while the values of B through H are, respectively, 55, 41, 39, 51, 24, 62, and 59. As such, the value for Q_T may be computed as +.125 while that for Q_{NOT T} is -.338. The resulting chi-square statistic is 5.31.

The clearest explanation of the utility of Yule's Q for the novice survey analyst is that provided by James A. Davis (1971; cf. pp. 99-103) for his discussion of the Goodman technique). The more advanced reader may also be interested in his subsequently published introduction to Goodman's work on hierarchical models (Davis 1974).

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