INTERNAL MIGRATION

Patterns of Migration

The cumulation of migration studies since the 1960s based upon census information and more recently upon the 1973 NDS has provided a broad picture of the size and pattern of population movements over the century.

That substantial population movements has occurred in the Philippines is evidenced by the fact that in 1960 12.6 percent of the population of all ages (representing some 3.4 million persons) were living in a region different from the one in which they were born, and in 1970 this lifetime migration figure was 13.2 percent or 4.8 million persons. Even in the much shorter period between 1960 to 1970, 8.3 percent of the population 10 years old and over had moved to another region within the decade. This do not reflect population movements occurring within regions, and the multiple moves occurring between birth and the period of enumeration.

Information on lifetime migration up to 1960 point to the predominance of long distance movements involving either inter-provincial or interregional transfers. This is characterized by relatively unidirectional, frontierward, male-dominated streams

from rural origins to rural destinations. During the period 1960 to 1970, while long distance flows continued to be a major component of the total migration pattern, the directions and social compositions have changed. Counterstreams to the dominant ones have appeared, and a centripetal pull to the metropolitan region has steadily grown replacing to a degree the centrifugal drive to the frontiers. These patterns contributed to the predominance of female migrants so much in evidence in data for the recent past. (Smith, 1977).

Data on inmigration and out-migration rates from the 1960 and 1970 census compiled by Perez (1978) reveal which regions gained and lost populations through such movements. Prior to the 1960s, Cagayan Valley, Southern Tagalog including Manila, and Mindanao were the major receiving areas, while the Ilocos, Central Luzon, and the Visayas were the major sending areas. Between 1960 and 1 970, Southern Tagalog and two regions in Mindanao were the main receivers while two regions in the Visayas and Manila were the major out-migration areas. The out-migration from Manila represented in most part the suburban movement into the now Metro Manila and the adjacent areas of Southern Tagalog and Central Luzon.

Determinants of Internal Migration

Studies on the determinants of migration in the Philippines focused both on the determinants at the macro level (interprovincial or interregional migration) and on the determinants of household migration. Examples of these types of studies will be briefly described here.

Interprovincial Determinants. Using the 1960 census data that cross-tabulated the population by province of birth and by province of residence, Zosa (1973) attempted to examine the relative effects on interprovincial migration rate (number of people born in province i but enumerated in province j) of selected provincial socio-economic characteristics and of selected indicators of "movement-modifying" variables between origin and destination provinces. The lagged socio-economic variables basically representing standards of living and employment opportunities were indexed by such factors as: (a) the difference in percentage of families using radios in 1948; (b) the difference in percentage of males employed respectively in extractive activities, in manufacturing industries and in supportive services in 1939; and (c) the difference of unemployed males in 1948. On the other hand, the "movement-modifier" variables which are assumed to facilitate migration are measures of physical and

social distance between provinces; the latter for example being indexed by major ethnic affiliation and by frontier status of the province. Severe multicollinearity among the above variables limit the results of the study even after prior selection on a larger set of variables have been made. Nevertheless one set of regression results (when all variables were included), indicated that among the significant variables the socio-economic pull factors (radio usage, extractive activities, manufacturing activities) were positively related to interprovincial flows. On the other hand of the facilitator variables, ethnic factor and frontier factor were positively related, while distance and regional similarity were negatively related to interprovincial flows. All variables together accounted for only 15 percent of total variations.

These results interpreted broadly are not inconsistent from what we would suspect from the earlier description of migration patterns. Movements have been directed toward areas where employment opportunities either in agricultural (rural and frontier destinations) or manufacturing activities (urban destinations) are available, and these areas often were of long distances and across regions from the areas of out-migration.

Interregional Determinants. Zachariah and Pernia (1975) looked at the correlations between 10 socio-economic indicators at both the origin and destination areas, and interregional migration during the 1969-70 period. Statistically positive significant zero-order correlations were obtained for the following variables: (a) total population in 1960, at origin and destination, (b) average family income in 1965, at destination; (c) average family income in 1965 of the bottom 30 percent of the families at destination and (d) unused agricultural land at destination. Statistically negative zero-order correlations were obtained for (a) rural poor as percent of rural population at destination; and (b) urban unemployment rate in 1970 at destination and (c) percent rural population who completed primary education in 1970. An important conclusion from these findings is that inter-regional migration in the Philippines during 1960-70 was determined more by the socio-economic conditions in the receiving regions than by the conditions at the origin, i.e., the "pull" factors appeared more significant than the "push" factors. A step-wise regression of 20 independent variables (10 at origin and 10 at destination) including the above variables having significant zero order correlations, indicated that only three variables made any significant contribution to explanation of the variation in inter-regional migration. These are the total population in 1960 at region

of origin, average family income in 1965 at the region of destination, and total acreage of unused agricultural land potential in 1973 at region of destination. These three variables together explained 45 percent of the total variation in the interregional migration, with average family income having relatively larger effect than the other two.

Except for the variable total population which do not readily suggest itself to easy interpretation (unless it is taken to represent density-related lack of agricultural employment opportunity), the results appear consistent with earlier observations. The major interregional flows in the 1960-70 period has been to the more urbanized and developed Southern Tagalog and Manila where average income have been relatively high and to a significant but lesser extent to Mindanao where agricultural land potential has not yet been fully exploited.

Individual and Household Determinants. The determinants of individual and household migration decisions can be inferred from data on reasons for leaving previous residence, and reasons for choosing current residence on the one hand, and from data of migrant characteristics on the other. Analysis of the same set data within a framework that allows for statistical control of relevant variables

further enhance our inferences regarding the determinants of migration. Data from the 1973 NDS has been the main source of information for the above types of analyses thus far.

Data obtained from the 1973 NDS survey on reasons for leaving previous place of residence and reasons for choosing current residence are tabulated into four categories. These categories are: (a) job related reasons; (b) familial reasons; (c) education related reasons; and (d) others. (Perez, 1978). The data show that for both lifetime migrants (birth to 1965) and for period migrants (1965 to 1973) who provided the necessary information, the economic factor dominated the other reasons for leaving previous residence. Job related reasons were mentioned by 48 and 40 percent of the respective migrants, followed by 31 and 37 percent respectively for familial reasons, and 18 and 14 percent respectively for educational reasons. The remaining migrants mentioned other reasons.

A second set of tabulation was the reasons for choosing current residence. For both lifetime migrants and for period migrants who provided such information 42 and 44 percent respectively mentioned familial reasons, 18 and 16 percent respectively mentioned job related reasons, a mere 2 and 5 percent mentioned education related reasons, while 38 and 35 percent respectively mentioned other reasons. Using

this set of data from the same source, one observes that the role of economic factors was swamped by the importance of familial reasons (e.g., to accompany or join paternal or other relatives, get married, etc.) in the migrant's choice the current residence in either 1965 or 1973. How do we make heads or tails with these information?

Given a lexicographic preference ordering scheme and on the basis of an earlier analysis by De Voretz (1972) one possible interpretation to the above seemingly conflicting sets of data may be as follows: Migrants place great emphasis on income gains from a move when deciding whether or not to move. Once the income gain criterion is achieved, the final decision on destination must meet other criteria including familial, and other factors. Another possible ordering might be to order education-related factors first, and once this criterion is satisfied, then the choice of destination depend on whether or not other criteria are satisfied.

Another set of data from which one can infer factors associated with migration is to look at the characteristics of migrants. The 1973 NDS provide such source of data, providing information on the migrant of his/her educational attainment, occupation, cash income, in addition to age and sex. Understanding of the relative significance of such factors in migration, however, is better made if the analysis

allows for adequate statistical control for other variables, and when such personal characteristics are combined with household and areal factors that could affect the decision to migrate. Analyses such as this have been made by Pernia (1978; 1979).

On the basis of information from the 1973 NDS, factors affecting migration decision from 1965 to 1973 by all persons, by household heads, and by persons who are single were investigated by Pernia (1978) for each sex. The independent variables included (a) age of the migrant at mid-point of the period; (b) education as reported in 1973; (b) occupation as reported in 1965; (c) marital status in 1965; (d) household size in 1973; (e) cash income in 1972; (f) presence of relatives at destination: (g) non-agricultural residence in 1965; and (h) size of municipality of residence in 1973. Pernia's major findings suggest the following relationships. The level of education increases the probability of migration for all three types of persons, but slightly more so for male heads and male individuals than others. The probability of migration is higher for male individuals and single males, the higher the prestige level of previous occupation (i.e., white collar vs. blue collar occupations). The probability of migration is not significantly directly related to expected income at destination except for female heads and single males. For male individuals and male heads, it would appear that

prospective employment or occupational mobility is a more important intervening consideration for migration than expected income per se. Employment at destination, however, is significantly related to male incomes at destination. For female individuals, and single females, the results suggest that the prospective education is a more significant intervening factor for both prospective occupational mobility and prospective income. Kinship types significantly increase the probability of migration of all persons, especially of females, indicating that kinship ties are important facilitators of final decisions to migrate at particular destinations. Finally, structural factors associated with non-agricultural residence at origin raises the probability of migration of individuals, but not of heads or single persons of either sex; and factors associated with larger population sizes of destination areas tend to increase probability of migration among individuals, and among female heads and single females.

Thus far determinants of migration either on the aggregate (interprovincial or interregional) or at the micro level (above) was viewed in terms of all types of migration. There are various types of streams to be sure, and the 1973 NDS has provided information on the relative sizes of these. In the earlier period (birth to 1965)

the more significant streams were the rural-to-rural migration (33 percent) rural-to-urban (30 percent) and rural-to-metro (13 percent). These accounted for three-fourths of the total volume of migration. From 1965 to 1973, the rural-to-urban flow became more significant (25 percent), followed by rural-to-rural (20 percent), rural-to-metro (15 percent) and urban-to-rural (10 percent) together accounting for 70 percent of total migration. An additional flow, metro-to-metro accounted for 13 percent.

Pernia (1979) extended his earlier analysis (Pernia, 1978) to study the determinants of migration by type of sectoral flow, more specifically by rural-to-rural, rural-to-urban, rural-to-metro and urban-to-rural flows. In addition he looked at the determinants by type of migrants, namely chronic and return migrants. Chronic migrants are those who move two or three times to different destinations; while return migrants are those who move back to the area of origin. In contrast, stable migrants are those who move once and stay put at destination. From the 1973 NDS data, 19 percent of the 7.9 million migrants in 1973 were classified as chronic migrants while 7 percent were return migrants. Factors affecting chronic migration are expected to vary from those determining return migration, and those affecting the decision to move for the first time. The socio-economic consequences of such types of moves

presumably would differ from the one-time types of migration.

Using the same explanatory variables as in the previous study, Pernia's findings suggest the following major relationships. The level of education increases the probability of migration from rural to urban, for both sexes and from rural to metro for males, but decreases the probability of urban-to-rural migration for both sexes and from rural-to-rural for females.

An interesting reversal of the importance of the effects of previous occupation and income at destination is revealed between the earlier study of migration involving all flows and this study of intersectoral flows. In the intersectoral flow regressions, income at destination increases the probability of all intersectoral migration for both sexes, except female migration from urban to rural areas. On the other hand, the previous occupation of the migrant was generally not a significant factor in all intersectoral migration except the migration of males from rural to urban. There seems to be no clear explanation of this result as yet. Disregarding the significance of the coefficients, however, one notes that a high occupational status at origin is positively related to rural-urban and rural-metro migration except for females in the latter flow, but that high occupational status at origin is negatively related to the

reverse flow from urban to rural destinations. It appears, therefore, that the higher the education and the higher the occupational status the lesser is the tendency to migrate from urban to rural areas.

The results also suggest that those moving to the metro area come directly from agricultural areas rather than non-agricultural rural or urban areas, while the move to urban areas means a move to large urban places or municipalities. The movement towards rural areas, however, tends to be more towards smaller areas, perhaps more frontier type areas.

As in the previous study, the presence of kin is a significant facilitator in all types of intersectoral moves.

With respect to the factors affecting chronic migration, the following are some of the major findings. In addition to the commonly observed negative effects of age and the positive effects of education, the factors occupational status and expected income appear significant for males [redacted] repeated moves than it is for females; on the other hand, females tend to make repeated moves when kin are present and towards large places.

For return migration, age has a negative effect while neither expected income, previous occupational status nor educational level

have any significant effect. The sign of the education coefficient, however, is negative suggesting that more highly educated migrants are less likely to return to the place of origin. Finally, presence of kin significantly makes return migration more likely.

In summary, in addition to the age and sex selectivity of migrants, migrants of higher educational levels, higher previous occupational status, higher expectation of income gain at destination, among others, have varying effects on the probability of migration depending upon the different type of moves, and upon whether the move involves repeated moves or a return to place of origin. Younger, relatively well endowed individuals in terms of occupation and education, tend to move to areas of great opportunity, and are facilitated by presence of kins at destination. The latter factor however may simply mean that the kin of perhaps similar personal endowment had, at a previous period, responded to the same set of factors as the present migrant. This selectivity of migrants on several characteristics have important implications for both sending and destination areas, as the few studies in the Philippines analyzing such potential impact have shown.

Consequences of Internal Migration

One can look at the consequences of migration at the macro level from the point of view of the area of origin and the area of destination, and from the micro level in terms of the impact on the migrants themselves and of the families they left behind.

Macro Level Consequences. A review of international literature on the economic impact of rapid migration, especially of the rural to urban or metropolitan areas suggests that such impact could include: (a) increases in urban unemployment and underemployment; (b) fragmentation of the urban labor market into traditional and modern sectors; (c) increased congestion and environmental pollution, and (d) greater expenditures on and/or greater shortages of public services. (IRG, 1979). The quantitative effect of migration, independent of such factors as the natural growth of urban areas, the character of industrialization and labor absorptive capacities of urban industries, as well as the administrative efficiency in the provision of basic services such as housing, water, etc., however has yet to be determined in the Philippines.

These are all potential negative effects. What of positive effects? One can infer from the previous discussion on destinations

of migrants, that the outmigration to the frontier areas characteristic of the earlier migration to Mindanao and Cagayan Valley have helped develop the agricultural potential of these areas. Such suggestion, however, has yet to be put to strict empirical test.

What about the demographic impact of migration in general? The age-sex selectivity of migrants directly affects age-sex composition of both the sending and the receiving areas, and this could have significant impact on nuptiality patterns and therefore on overall fertility, (Smith, 1975a). In addition the migrant selectivity in terms of income and education, both correlates of fertility, could directly affect overall area fertility in both sending and destination areas. In addition to this type of selectivity, urban migrants may be exposed considerably to fertility reducing forces in the urban area, and, therefore, tend to contribute to the maintenance of rural-urban differentials. (Hendershot, 1971).

What is the impact of out-migration from the point of view of the sending area? Again, some hypotheses have been suggested in the international literature including the possible effect on agricultural productivity as a consequences of the migrant selectivity in age, sex, education, and skills. However, it has also been suggested that the possible correlation between productivity decline and out-

migration may be explained by the operation of common antecedent factors such as soil quality and population density. One can also include the social and economic structure defining patterns of land tenure and access to modern agricultural technology as common antecedent factors. Several important issues can be raised, the lack of studies thus far have hindered resolution of the above and other issues, however.

Inferences concerning the possible impact of out-migration on the living standards of the rural poor has been made by Zachariah and Pernia (1975) and by Pernia (1977). The fact that out-migrants are selective of age, education, skills and income may be inhibiting factors to the development of areas of origin. Secondly, the potential positive impact of remittances and of return migration may not be significant enough to make a difference. First, migration tends to be long-distance moves which reduces the probability of close contact between out-migrants and their areas of origin. Secondly, return migration tends to be selective of characteristics negatively related to potentials for development, i.e., older persons of lower education and skills have been shown to be the ones more likely to return. One possible positive impact of out-migration, however, is that such moves may have been effective in reducing

population pressure on the land in the poor regions. Such inferences, however, merely suggest areas for more thorough quantitative investigation.

What are the consequences of migration on the migrants themselves? Some evidence are available that migrants have raised their occupational status and incomes as a result of the move, independent of other factors. Pernia (1978). On the other hand, evidence have been presented on problems of migrant adjustments, economic as well as social, at the areas of destination, especially when such migrants end up in the squatter or slum sections of urban areas (e.g., Lopez and Hollnsteiner, 1976). These migrants often have low educational levels making them less able to obtain well-paying jobs in the urban modern sector.

When sets of studies such as those of Pernia (1978) are juxtaposed with the studies such as those of Lopez and Hollnsteiner (1976), one can attempt to present a more complete picture of the consequences of the migration process. Migrants who tend to be positively selected in the areas of origin in terms of age, education and income, immediately adjust themselves pretty well in urban settings, getting the better jobs and raising their incomes. Migrants who were negatively selected, on the other hand, tend to end up with low paying,

unskilled, intermittent jobs, thereby exacerbating their initial poverty at the area of origin. In assessing the determinants and consequences of migration, both these groups and other social groups of migrants must be taken into account. And this suggests a broader approach to migration analysis: the need to examine the effect that different factors have on specific types of population movement, as well as on migrants and potential migrants from different social classes. While the relatively few studies based on a large set of national survey data have gone a long way in determining the differential effect of socio-economic factors on various inter-sectoral and types of migrants, much more need to be done to move further at a more disaggregated level to examine the differential effect of these factors on various social groups if a more complete picture of the determinants and consequences of migration is to be obtained.

Migration of Women.

One social group in which more detailed analysis have been made recently is the female migrants. Eviota and Smith (1979) compiled and analyzed data from censuses and from the 1973 NDS which revealed several interesting insights regarding the relationship between socio-

economic factors and the migration pattern of this particular social group. First, women are numerically dominant in almost all kinds of contemporary Philippine migration, and they constitute a large majority in the recent urbanward migration of teenaged and young adult cohorts. Secondly, the pattern of female-dominant migration is an emergent one. As described above, the earlier migrations were male-dominated, and frontierward. In the postwar, post independence period, however, the new female-dominated pattern has become evident. Thirdly, two of the most prominent social changes in the 20th century could possibly be linked with female migration to cities, namely: (a) the growth of education, and (b) the growth of the urban labor market. With respect to education the evidence suggest that the mean level of educational attainment has risen across the population as a whole, and that sex differentials in educational attainment a nd literacy have been reduced substantially. These trends, combined with the selectivity of recent female migrants as well as males on educational attainment, have contributed to the drawing of relatively well-educated women into rural-to-urban migration streams.

With respect to the second factor, the evidence indicate that labor market changes in the metropolitan economy has led to occupational changes as well, and women now possessing equally high level of

education as men have moved into occupations formerly held by men. Data compiled by Eviota and Smith (1979) show that in 1903 professional and technical occupations were heavily dominated by men (sex ratio of 4,686 males per 1000 females), by 1939, the sex ratio has declined to 963 and in 1970, it has declined further to 456. Women, however, tended to be mostly confined to "pr essors and teachers" and "nurses, etc." On the other hand, we also find dramatic improvement in the sex ratio overall (2,449 in 1903, 639 in 1939 and 256 in 1970) in the "services, sports and related occupations", but little change in the distribution of women's occupation within the broad category. In 1903 as in 1970 roughly 90 percent of all female service workers were "domestics".

Looking now at the evidence showing the most common urban occupations of migrant and urban-born men and women based on 1973 NDS data, the authors observed a pattern of extreme occupational differentiation by migrant status and sex. Native working women tend to occupy the high prestige occupations while working female migrants occupy the service occupations, mostly housekeepers, cooks, maids, etc. The segregation is sharper in the Metropolitan area among in-migrants from rural areas, and among recent migrants. This

differentiation is all the more disturbing when compared with males. Educated male migrants tend to occupy white collar and craftsmen occupations while relatively educated women migrants are still predominantly in the service sectors. The picture improves among female migrants with some exposure to college or university - 75 percent of female working migrants are in white collar employment; however, these are mainly in clerical and sales categories, and still 20 percent with college education are in the service sectors.

An important issue that deserves careful study suggest itself, but more forcefully summarized by Eviota and Smith (1979): "...what [do] these very prominent aggregate patterns mean for the life chances of the people involved". (p. 18).

Public Policy

The preceding discussion on the areal and micro-level determinants of voluntary migration suggests that public policy and programs that directly or indirectly affect the spatial distribution of employment opportunities and of social services such as education, could have a significant influence on the migration patterns. In fact, among the demographic processes, migration is perhaps the most

sensitive to socio-economic changes. Very little empirical assessment, however, has yet been made on the impact of such policies and programs on the observed pattern of migration.

Policies and programs that potentially have an influence on voluntary migration would inclue (a) the package of policies and measures associated with the import-substitution industrialization program of the government in the 1950's and 1960's; (b) the shift in public policy thrust in the 1970s towards rural/agricultural development, exports promotion, regional dispersal of industry, and infrastructural development in both urban and rural areas. An assessment of the impact of these broad policies and programs on internal migration especially rural-urban migration has yet to be made.

Another set of policies and programs might be categorized into those that attempt to cope with the problems brought about by internal migration. Most of these programs deal with problems of urban growth especially in the Metro Manila; such as housing programs, squatter relocation, slum reconstruction, etc. Again very little social science research has been done to evaluate the impact of these programs.

One can notice a certain asymmetry in the role of public policy in influencing and responding to internal migration. On the one hand,

the earlier public policies and programs seems to have been implemented without explicit regard to their population distribution consequences except perhaps for the resettlement and relocation schemes. Part of the reason is that these public policies and programs had objectives which were problem-specific and were desirable in themselves. On the other hand, policies and programs that bear upon the problems of urban growth tend to point strongly to rural-urban migration as a main culprit in the emergence of such problems. Clearly, much more needs to be known about how specifically certain aspects of public programs influence internal migration, and about how internal migration contribute to urban problems before one can design appropriate programs both to influence the pattern of, and to respond to the effects of internal migration.

Towards a Research Agenda

In view of the fact that public policies and programs have multiple objectives, it is difficult to isolate policies and program that are geared solely to influence or to respond to the effects of, internal migration. Yet to be able to explicitly assess the impact of public policy and programs on internal migration it will be useful, on the basis of what is already suggested by the studies on the determinants and consequences of internal migration to make a

comprehensive descriptive inventory of public policies and programs that influence internal migration. (See Pernia and Paderanga (1980) for a review of policies influencing spatial development).

From such an inventory one can proceed to evaluate the impact of efficiency of such programs in influencing internal migration. Such policies and programs could be divided into (a) direct policies, e.g., resettlement or relocation schemes, or (b) indirect policies, e.g., regional development and industrial location policies, regional dispersion of social and government services, etc. Questions that need to be answered on such an evaluation would include the degree to which policies adopted were actually implemented, to what extent they achieved the stated purposes, and whether what was achieved was desirable.

Another major area of research is the study of the determinants of internal migration by building on the already available studies. These new sets of studies should look into the factors tha t influence various population sub-groups to migrate or not to migrate, and with respect to the latter, where they migrate.

A third priority area will be on the consequences of internal migration. There is a need to identify and quantify more systematically the economies and diseconomies of internal migration from the point of

the sending areas as well as of the receiving areas, both at the macro level, and from the point of view of the migrant and the non-migrant at the micro level.

Finally, there is a need for continually monitoring migration patterns either through censuses or surveys. Detailed analysis should be made of broad patterns of migration as well as of specific types of migration such as seasonal, return, inter-sectoral, etc. More important, there is a need to relate these patterns to specific characteristics of the migrants themselves as well as of those who are left behind.

INTERNATIONAL MIGRATION

As a component of population growth, international migration is of minor significance than the other demographic processes described earlier. The total volume of such migration is small relative to the total population. Yet as Concepcion and Smith (1977) observed: the Philippines is one of a small number of developing societies for which international migration is a significant social-demographic phenomenon. The reasons are that outmigration historically has been linked to important internal population adjustments and more recently the international flow has involved large numbers of skilled professionals. The available Philippine studies dealing with international out-migration is reviewed here.

Levels and Trends.

While administrative procedures require collection of information on a migrant such as visa forms, etc. such information is often available at the receiving country rather than the sending country, and as such it is often not easy to compile such statistics to determine the volume of emigrants regularly. Where information from the receiving country can be collected, either in their censuses or immigration statistics, it is still difficult to sort out accurately the permanent or longer term migrants from the short-term

or temporary ones. On the other hand, available data from various government agencies related to the temporary flow of migrant workers are necessarily incomplete in coverage, since they do not include those workers who migrated on their own. Hence, it is difficult to determine precisely the flow of emigrants at any given time.

Estimates of the outflow of Filipinos to foreign lands have therefore relied on data compiled at the destination country, such as from census returns or from reports of their immigration office. Smith (1976), for example, used the annual reports of the U.S. Immigration and Naturalization Service to look at the trend in Filipino travel and migration to the U.S. from 1957 to 1972; and from census returns, both to determine the growth of the Filipino population in the U.S. as well as their changing social composition. Gupta (1973) on the other hand relied mainly on immigration statistics to determine the magnitude of immigrants to the United States, Canada and Australia, around the period 1965 to 1971, on Embassy figures to determine the volume of work permit holders to the United Kingdom; and on the Department of Labor's Registry of Employment Contracts to determine the volume of Philippine contract workers to several countries. A more recent study by Abella (1977) examined current trends in external migration from 1972 to 1977 based on the records of the Bureau of Employment Services (BES) which approves contracts for overseas employ-

ment, the National Seamen Board (NSB) which registers seamen and supervises over their recruitment, and the Overseas Employment Development Board (OEDB), which registers Filipino emigrants and undertakes the placement of Filipino workers overseas.

Piecing together the results of these three studies, one can characterize the dominant patterns of Filipino emigration as follows. The first is the outflow of migrant workers in the early part of the century especially to the United States to work in the plantations in Hawaii and California. This flow involved largely single males coming mostly from the Ilocos region. Subsequent migration up to the 1950s have been small in magnitude involving among others the migration of relatives of both sexes after the war. Much of the Ilocano migration Smith has related to the general demographic and social structure of the Ilocos region and is linked to the general internal movements of these people. The second major pattern is the heavy outflow of Filipinos from various regions of the Philippines and of all ages (migration of entire families) after 1965, significantly associated with the U.S. Immigration and Nationality Act of 1965. This act abolished the old national origins quota system which limited the number of immigrants from a large number of Asian and African countries to 100 per country, and in turn established (a) a ceiling of 170,000 immigrants annually from the Eastern Hemisphere and 120,000

from the Western Hemisphere; and (b) created an immigrant category of 17,000 positions to be filled by "professional, technical, and kindred workers". (Bello, Lynch, Makil, 1969). The effect on Filipino emigration to the U.S. can be gleaned from data compiled by Gupta (1973). The number of Filipinos subject to numerical limitations issued U.S. immigrant visas was 100 in 1965, in accordance with the level of the national quota. By 1969 it has increased 200 times, and has maintained that annual level in 1971. A large part of these emigrants are professionals, technical and allied workers together with their families.

The third major pattern of emigration involves the contract workers or temporary migrant workers whose destination tend to be the Middle East, Europe and Asia. The growth of this temporary migration of workers has outstripped that of permanent migrants, with seamen accounting for around two-thirds the number from 1972-77. This recent migration is a response to great demand for skilled and semi-skilled manpower in the international labor market. Observes Abella (1977): "The overseas labor market has become a very significant absorber of Filipino manpower. The number of Filipinos who found jobs overseas during the period 1972-1976 represent about ten percent of the additions to the labor force during that period. The manufacturing sector managed to absorb only an additional 240,000 workers between

February 1972 and August 1976, whereas the overseas labor market absorbed 169,321 workers during the same period from January 1972 to December 1976, excluding permanent emigrant workers."

Clearly, much more reliable estimates need to be made on the outflow of Filipinos abroad to determine their significance. The usual sources of data contain inherent defects: the census of receiving countries include both recent migrants and native born Filipinos; the immigration statistics do not distinguish permanent from temporary migration; and employment service records do not capture non-organized temporary migrants who take employment abroad on their own. Furthermore, there is need to obtain more regular and systematic data on this phenomenon.

On the problem of estimation, one might note that specialized surveys could be made to add to the existing pool of data sources. A Philippine Brain Drain survey conducted by Bello, Lynch and Makil (1969) for the period 1948-1963 illustrates the potentials as well as the limitations of such an approach in the estimation of the "brain drain". Essentially the study selected a sample of some 1,500 graduates of Philippine colleges from 1948 to 1963, whose course had been either liberal arts, education, law, engineering or commerce and from these questionnaires were sent to obtain the characteristics of respondents in terms of post-college studies, what they were doing

at the time of the survey, and where they lived. Their findings revealed that of all Filipinos who are graduated from Philippine colleges, about seven percent eventually take up permanent residence abroad. Of those who study abroad after college, a maximum of about 40 percent eventually emigrate. Factors associated with emigration include country of post-college studies, sex, college course taken, college attended and source of support. Emigrants tended to be those who have studied abroad, alumni of relatively high quality colleges and universities in the Manila area, those who paid their own way during their studies. Of those who studied abroad females tend to emigrate more than men, while for those who did not study abroad, men tended to emigrate more than women.

Determinants

As may be expected, the factors motivating the migrants are varied and complex depending on the type of migrant. The earlier migrant workers to the U.S. to work in plantations were just probably lured by the chance to obtain employment and by higher pay. The migration of the Ilocanos, in particular, was linked by Smith (1976) to the niggardly resource base provided by the region's topography and climate which gave rise, among others, to internal and foreign migration.

Among the second wave of migrants consisting mostly of professionals and related workers, the main motivating factors would perhaps include better opportunities to practice their profession and to advance professionally in addition of high wage rates. In a study of factors associated with the outflow of U.S. educated Filipinos, who had at least a Bachelor's degree and went to the U.S. for degree or specialized training during the years 1960-1965, Cortez (1970) found that the propensity to emigrate is higher among persons who have weak psychological, social and other ties or attachment to his home country; and who perceive little opportunity for themselves in the Philippines. Usually these tend also to be young, single, females who have no job to return to, who are in the fields of natural sciences and engineering. McCarthy (1970) interviewed 100 "productive" scientists (one who has published at least one article beyond his thesis) in 10 universities to determine how they view the world, their discipline, the society and their future. Questions were asked about the work conditions, networks, research opportunities and support, and intellectual environment. He found that there are more than economic factors alone that determine whether these scientists stay or leave. A perception of a general lack of opportunities for professional advancement like inability to do research, due either to the lack of facilities, support or time; lack of professional stimulation; and the lack of

links to the external scientific world, were found instrumental in a scientist's decision to leave the country.

In a survey of 410 professionals who have studied abroad at least two years or more and had returned home, Parel (1975) found that the greatest attraction for the respondents to stay abroad for a substantial time while they were completing their studies related to working conditions, availability of skilled assistants, close contact with developments in their profession, prospects for faster professional development and good pay. Why did they return? A large majority of Parel's respondents reported they were under legal obligations to return!

In a study of determinants of the migration intentions of 319 Filipino graduate students in the United States, Card (1975) found that "push" factors from the Philippines were more relevant to migration than "pull" factors from the United States; valuation of the Philippines in terms of economic, social and professional opportunities was consistently a better predictor of migration than nature of experience in or attitudes toward the United States. Respondents tended to evaluate the Philippines less favorably than the US; they also tended to identify more strongly with the US than with the Philippines.

A large portion of the so-called brain drain is associated with the outflow of medical doctors and nurses. Hence, studies relating to their perceptions are specially important. Asperilla (1975) surveyed Filipino nurses in the New York, Philadelphia and Chicago areas who later returned to the Philippines regarding the reasons for their emigration in the first instance and subsequently for their return. She found that the "pull" factors that encouraged migration were the opportunity for professional and personal growth, better remuneration, and the opportunity to travel and see places. On the other hand, the respondents returned to the Philippines because their visas had expired. The majority of the subjects, however, expressed their desire to return to the United States on an immigrant visa.

In another study Abad (1975) chose a random sample of 63 Filipino physicians who were then affiliated with New York hospitals a nd medical centers. He found that the most important reasons for these doctors remaining in the U.S. after training include the desire to acquire professional skills, to save money for personal use after return, and to wait for political development, in the Philippines.

In short, motivations for migrating or of intentions to migrate among professionals and skilled personnel are associated with economic,

professional as well as with social-psychological factors. The other side of the equation, however, are the immigration laws and provisions for their enforcement in the receiving countries, again notably in the U.S. The Immigration Act of 1965 which relaxed restrictions on race and country of origin and placed greater emphasis on skills, greatly facilitated the outflow of skilled manpower from the Philippines.

The more recent development of an upward trend in the temporary migration of skilled contractual workers to such areas as the Middle East, Asia and Europe, however, can be traced to the great demand for labor in these countries, and to the Philippine government policy of encouraging such outflow in a more organized manner.

Consequences

What are the consequences of the outflow of skilled manpower from the Philippines? Assessment of these by social scientists have yet to be made systematically. Gupta (1973) for example, compares the outflow of Filipino professional workers in 1970 with the total stock of professionals at that time. In spite of severe limitations of the data, the data indicate some 3 to 4 percent of engineers of various types, and of different categories of health and medical personnel have migrated out of the country. In terms of graduates in

these fields in 1968-1969, the percentage of outflow in 1970 amounted to 29 percent for the first category and 50 percent for the second. The largest outflow occurred among aeronautical engineers (50 percent) and industrial engineers (47 percent) in the first category; while in the second, the largest outflow occurred among physicians and surgeons (62 percent), dentists (95 percent) pharmacists (70 percent), dieticians and nutritionists (87 percent) and veterinarians (68 percent). The effect of such heavy flows from cumulative stock or from recent graduates can be assessed in terms of the needs of the economy for such services. The loss to the country in terms of their potential services as well as the cost of their training and education, however, could be balanced against employment opportunities available to these skilled personnel at home, as well as to amount of remittances they provide while abroad. These types of information, however, are unavailable at present to properly assess the cost to the country of such outflow.

The same arguments can be made for the contractual workers to some degree. That the large outflow of these workers could ease up unemployment problems is not clear from our present knowledge, nor do we know anything about their impact on production and wage structures.

Clearly, much more detailed analyses on the impact of the outflow of skilled manpower both the permanent and the temporary ones are needed to guide policy on this matter. Another set of issues that has not been sufficiently addressed is the impact of return migrants on innovative behavior (McArthur Jr., 1975) investments in the community (Griffiths, 1975) and on the role of remittances.

Public Policy

In view of the general lack of knowledge of the magnitude of the manpower outflow and of its impact, it is not surprising that there is no definitive policy on the out-migration of such manpower. Several attempts however have been made to minimize the problem of manpower outflow, especially among doctors, scientists and exchange scholars. These actions which Gupta (1973) has identified include (a) the Medical Care Act of 1969 which was expected to broaden employment opportunities for medical personnel in the country; (b) the recent legislation for the establishment of a health science centers in the University of the Philippines; (c) the development of community health service programmes; (d) the expansion of rural health units: (e) the creation of a science research fund together with the setting up of a number of research institutes.

Other programs include the government's arrangements made with the U.S. government such that the Exchange Visitors Program could be amended in such a way that certain persons specializing in fields which the Philippines is in need of skills will not normally get a waiver in the U.S. from the two years' previous foreign residence requirement. More recent attempts to address the problem of the brain drain include the Balik-Scientists Program and the requirement for rural internship for doctors and nurses before they are allowed to go abroad for further studies or for employment. On the other hand, these seems to be a policy of government to encourage the flow of contractual workers to foreign countries in terms of group contract schemes in which control of remittances can be made.

As a final note, a comprehensive public policy on international emigration of skilled manpower has yet to be made. However, much still needs to be known from which to base such a policy.

Towards a Research Agenda

To properly assess the magnitude of international migration, one needs to have reliable and up-to-date information of such migration in terms of its volume, reasons for migration, average length of stay, the amount of remittance and returned savings, cost of migration and

the characteristics of migrants. In addition to the traditional sources of data, specialized surveys could be conducted to generate such information on a systematic basis.

In addition, studies on the consequences of emigration is called for. What are the economic and social effects of the recently initiated flows of skilled and semi-skilled workers. Part of the justification for such research is the insight such studies might reveal as to measures that the government could take to increase the benefits obtained from this migration by both the economy as well as by the migrants themselves.

Thirdly, there is need to evaluate current policies or measures to induce highly trained nationals to remain at home or for those abroad to return home, as well as of policies regarding the organized export of semi-skilled and skilled labor. The questions that need to be answered are: (a) to what degree was the policy actually implemented; (b) what was the design or mode of operation, (c) to what extent was the stated purpose achieved and (d) how beneficial were the end results for the different parties concerned. Finally, one could re-examine the educational and training programs in an effort to redesign such programs that will prepare people to perform the jobs that are available and need to be done in the country.

A SUMMARY AND ELEMENTS OF A RESEARCH AGENDA

Figure 1 below describes a general framework for viewing population-development relationships from a policy maker's and planner's perspective. In this framework, the demographic processes are determined by public sector policies and programs directly through narrowly based single-purpose programs, and indirectly through their effects on the other areas of development concern; at the same time, they influence the nature and level of public intervention through their effects on the attainment of the traditional developmental goals. The generally circular nature of the relationship is broken down into discrete units to highlight specific components of the population-development process vis-a-vis the role of public policy.

To start off, the demographic processes of fertility, mortality and migration (Block A) determine at some given time period, the size, growth and spatial distribution of the population. These changes could affect the attainment of development objectives reflected by the areas of concern (Block B), which in turn modifies public policy to take account of the resulting population characteristics in determining the level of public intervention in the next planning period. In addition, the observed consequences of demographic trends on the areas of concern could generate policies and programs that directly affect the demographic processes themselves with the view of minimizing

their adverse influence on the attainment of traditional developmental goals. A family planning program designed essentially to directly reduce the birth rate; a narrowly designed public health program to control epidemics and a resettlement or relocation program designed narrowly to transfer people, are examples of such direct public interventions since they are not meant to substantially affect the non-demographic areas of concern.

Looking at the relationship from another point of view, the formulation of public policies and implementation of programs are determined by the need of public authorities to affect changes in the non-demographic areas of concern, taking into account the exogenously determined population characteristics. These interventions would presumably affect these areas of concern in varying degrees according to both their intended effects as well as the unintended ones. One set of such unintended effects could be the effects of the changes in these areas of concern on the demographic processes. Hence, public interventions pursued essentially with non-demographic objectives in mind could have significant demographic consequences as well.

This simple framework allows us to highlight the main findings and limitations of current social science research on population-development links. The first set of information necessary for policy making and planning is of course the levels and trends in the demographic

variables themselves. Our review reveals that we know more about fertility levels, less on migration and much less so on mortality; and generally, in each of these variables, we know more about levels and trends at the national level than at the sub-national level and among social groups.

Secondly, what do we know about the consequences of demographic trends? In most of the studies examined, demographic trends have been expressed in terms of rapid population growth, either through natural increase (the balance between births and deaths) in the case of the nation as a whole, or through natural increase and migration in the case of sub-national areas, notably metropolitan and urban areas. Studies that examined the impact of rapid population growth at the national level point to the adverse effects of such growth on per capita income, employment and the provision of basic services such as education and health. None of these researches however studied actual consequences of demographic trends, rather these consequences were inferred from the results of simulation exercises using economic-demographic models of different specifications. The above inferences can be extended at the sub-national level with respect to the impact of rapid rural-urban migration on urban employment problems and the increased pressure in the provision of urban services.

Studies at the micro-level emphasized the effects of increased family size on savings, morbidity and nutritional status of children. With respect to the micro-level consequences of migration, both negative and positive effects on the migrants have been suggested depending upon the nature of migrant selectivity in terms of age, sex, and educational status.

Knowledge of the consequences of demographic trends are necessary in order to generate interest in the need for a population policy. In view of the already strong commitment of the Philippine government to a population policy and program to affect demographic trends, the type of macro-consequences studies represented in the review have probably serve this purpose adequately. What is now critical however is the need for a type of consequence studies that determine precisely who are the most adversely affected by such demographic trends, what are their characteristics, and where are they located. Information for example on what geographical areas or social groups are most affected by high fertility, high mortality and rapid migration, could help formulate specific policies and programs geared directly towards these population groups.

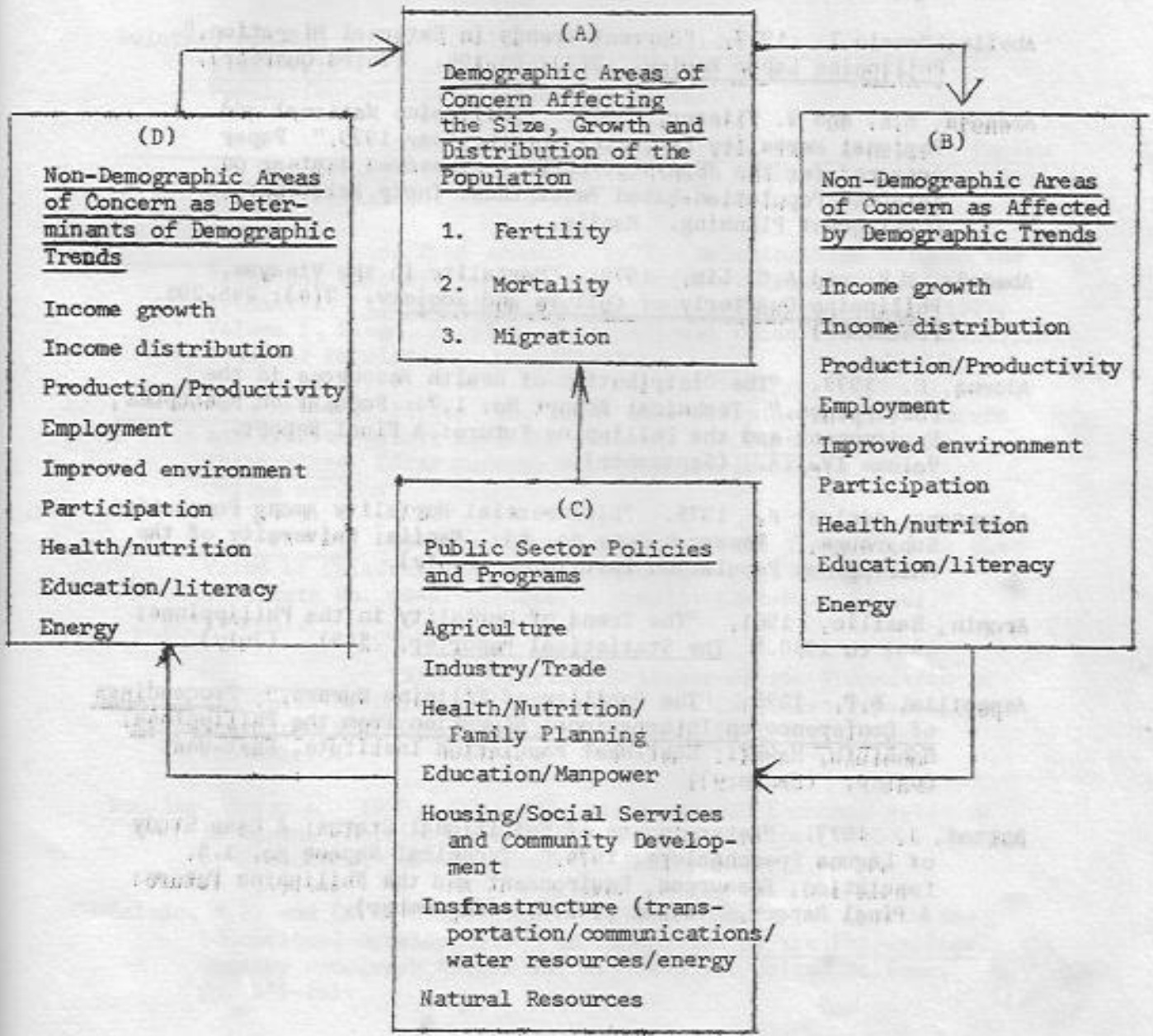
Thirdly, what do we know about the determinants of demographic trends? The studies reviewed suggest the existence of strong interaction among demographic variables: differential migration patterns

can have significant impact on nuptiality patterns and therefore fertility; however the effect of fertility on mortality and vice versa appear to be of lesser magnitude. In addition the studies reviewed suggest that changes in the values of the non-demographic areas of concern could have discernible impact on demographic trends: with respect to fertility, through changes in education and health, as well as through female employment via its effect on the age at marriage; with respect to migration, through availability of employment opportunities and access to educational services; and finally with respect to mortality, through improved health and nutrition services and improved environmental sanitation. Hence, policies and programs that affect these areas of concern could have discernible impact on the demographic variables. What is not precisely known however is (a) the quantitative extent and the specific mechanisms through which these policies and programs affect these areas of concern; and (b) through what specific mechanisms and to what quantitative extent do changes in these broad non-demographic areas of concern in turn affect these demographic variables. These types of information are critical in the optimal design of policies and programs that address both the non-demographic and demographic objectives.

Finally, what do we know about the policy making process itself? How do policy makers formulate policies? From what types of

information do they base these policies and programs? What additional types of information do they perceive they would need to do a better job? We know of no such studies thus far that might answer these questions. In the continuing dialogue between social science researchers and policy makers, it seems that the question could be better answered by the policy makers themselves!

Figure 1: A Framework for Analyzing Population-Development Relationships From a Planner's Viewpoint



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