

POPULATION CHANGE IN SOUTHEAST ASIA

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The **Southeast Asia Population Research Awards Program (SEAPRAP)** was established in 1974 with the following objectives: (i) to strengthen the research capabilities of young Southeast Asian social scientists and to provide them with technical support and guidance if required; (ii) to increase the quantity and quality of social science research on population problems in Southeast Asia; and (iii) to facilitate the flow of information about population research developed in the program as well as its implications for policy and planning among researchers in the region, and between researchers, government planners and policy makers. These objectives were pursued mainly through a system of research awards to qualified applicants. The selection of awardees was made twice a year. In addition, results of research projects were circulated under the SEAPRAP Research Reports series to relevant institutions and individuals. Between 1974 and 1981, when SEAPRAP formally ceased operations, a total of 116 reports were completed.

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POPULATION CHANGE IN SOUTHEAST ASIA

edited by

WILFREDO F. ARCE and GABRIEL C. ALVAREZ

SEAPRAP SOUTHEAST ASIA POPULATION RESEARCH AWARDS PROGRAM

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Foreword

The Southeast Asia Population Research Awards Program (SEAPRAP) was inaugurated in 1974 following a keenly felt need for an arrangement or mechanism that would provide modest sums of money, in the form of grants, to small-scale, well-focused research projects of not more than 12 months duration. Special preference was to be given to graduate students and younger staff members of rural and non-metropolitan universities. The basic aim was not only the generation of worthwhile research and publication but also the widening of the experiences of the individual researchers, as well as their further professional development.

Between 1974 and 1982, when it formally ceased to exist, SEAPRAP made 125 awards out of a total of more than 400 applications received from almost all parts of Southeast Asia. Even while the Program was being wound down, enquiries continued to pour in for information on further awards. This only underlined the continued need for a program like SEAPRAP. It is all the more regrettable, therefore, that it has not been possible to continue the fruitful work that has been initiated. Needless to say, it is hoped that the situation will not continue for too long. The opportunity still exists for the work to continue — the SEAPRAP Committee has not been formally disbanded, the members unanimously agreeing to stay in touch. This is just another manifestation of how committed the individual Committee Members have been to SEAPRAP and how generously they have given their time to the Program. It is thus only fitting that the deep gratitude of SEAPRAP and of myself personally to the Committee be recorded here. Likewise our thanks for the abiding interest in and support of the Program by both the IDRC and the Ford Foundation and their officials. The Committee and I have received unstinting cooperation and help from the three successive coordinators of the Program and I would, *on behalf of the Committee*, like to express our appreciation of this to Pedro Flores, Wilfredo Arce, and Jesucita Sodusta. Thanks are also due to Dr Wilfredo Arce and Dr Gabriel Alvarez for their selection and editing of the papers that comprise the volume that follows.

It is possible that purists will find the quality of the individual chapters in the volume variable. This, however, is only natural in a work and enterprise of this nature. What is perhaps more important is that an even greater encouragement has been provided to younger researchers, particularly to those who do not have easy access to research funds or sophisticated facilities or professional advice. In this respect — and I am sure the editors will agree with me — it is perhaps only right that this volume be dedicated to these younger researchers and their efforts.

20 January 1983

Professor K.S. Sandhu
Director
Institute of Southeast Asian Studies

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THE SOUTHEAST ASIA POPULATION RESEARCH AWARDS PROGRAM (SEAPRAP), 1974-1981: AN INTRODUCTION

Wilfredo F. Arce and Gabriel C. Alvarez

This book presents in a more formal volume, albeit limited by space considerations, a set of SEAPRAP grantees' studies of population issues in the Southeast Asian region, undertaken by grantees of the Southeast Asia Population Research Awards Program (SEAPRAP). The volume is thus basically a collection of selected and condensed research reports. The strengths and weaknesses of these reports — indeed of other reports derived from any of the SEAPRAP projects and published elsewhere — is better appreciated when viewed from the perspective of what the Program is about.

This introductory paper attempts to provide that perspective. The first part presents a summary description of SEAPRAP as an organization. The second part describes the people for whom SEAPRAP was created, namely, the young social scientists who undertook research with funding from the Program or who otherwise applied for funding. The years have taken their toll on the data on file, and no new set of data has been gathered. However, the information that remains does reveal something worth reporting about the young social scientists that SEAPRAP had contact with. The third and last part summarizes the research concerns of the awardees. It also introduces the awardees' research reports that are presented in this volume.

It should be clear that the main purpose of this introductory paper is to describe, not evaluate. The individuals who were working with the Program are shamelessly proud of it and make no pretense at being able to judge the Program without bias; hence, conclusions on the effectiveness (or lack of it) of the Program are minimized. Instead, two evaluations that were made by individuals who were otherwise not connected with the Program are included in the appendices.

THE BACKGROUND

It is not necessary to go deeply into the events that led to the formation of the Program. Suffice it to say that representatives of the Ford Foundation and the International Development Research Center (IDRC), alert to the needs of the region and open to suggestions from knowledgeable individuals in it, provided the initial impetus for the formation of SEAPRAP. During 1972 and 1973 Lyle Saunders, Ozzie D. Simmons, and Carl Friesen, in intermittent discussions with various Southeast Asian social scientists, began conceptualizing the outline of the Program. It would provide grants for relatively small, well-focused research projects of one year's duration and costing a maximum of US\$7,500 per project. The target audience would consist of young university faculty members, graduate students, and staff members of agencies involved in population programs. Preference would be given to applicants working outside metropolitan areas. Research proposals and reports could be written in the national language of the author. The development of an individual's skills would be given as much weight as the substance of the project, and for this purpose the young social scientist could avail himself of the consultative assistance of more experienced researchers should he or she professionals managing the Program decide that this would be both useful and feasible. The Program would be offered to nationals of the countries of Southeast Asia, namely,

Burma, Indonesia, the Khmer Republic, Laos, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.¹

Convinced of the need for the emerging Program, the two foundations made the decision to support it. Events moved swiftly, and by April 1974 both foundations were ready to provide funding for the Program and had identified a group of consultants and a coordinator.

The individuals involved had been among those with whom the initial discussions on the Program were held. They were Amphon Namatra of Chulalongkorn University; Rodolfo A. Bulatao of the University of the Philippines; Nathaniel Iskandar of the University of Indonesia; Kernial S. Sandhu of the Institute of Southeast Asian Studies, and Yip Yat Hoong of the University of Malaya. They constituted an ad hoc committee that met on 21–23 May 1974, with Pedro V. Flores, formerly of Silliman University, who had been designated Project Coordinator by IDRC, Simmons representing the Ford Foundation, and Nihal Kappagoda representing IDRC. In this meeting the fundamental objectives, structure, and activities of SEAPRAP were set, and a wide range of details and issues affecting the Program were discussed and/or decided upon. At the end of it SEAPRAP was truly formed. Control at the highest level was assumed by the ad hoc committee, now formally called the Program Committee, with Sandhu as Chairman. As part of the move to make the program Southeast Asian in character, it was thought that the base should be a Southeast Asian institution. At the time, however, it was expedient for its offices to remain at the IDRC Regional Office in Singapore.

THE SEAPRAP ORGANIZATION

The meeting participants agreed on the following statement of the Program objectives:

1. To strengthen the research capabilities of young Southeast Asian social scientists, and to provide them with technical support and guidance if required;
2. To increase the quantity and quality of social science research on population problems in Southeast Asia; and
3. To facilitate the flow of information about population research developed in the Program as well as its implications for policy among researchers in the region, and between researchers, government planners, and policy makers.

Later on, the Program would be criticized adversely for not delineating more precisely the range of population issues that it considered to fall within its scope of interest (see comments reported by Rixhon 1977: 17–19). But the Program Committee adhered to its original decision to keep the research topics deliberately wide-ranging; it only specified the exclusion of topics that would legitimately fall under reproductive biology. However, as a guide for interested individuals the printed announcement included the following list of “illustrative research areas”:

1. Factors contributing to or related to fertility regulation and family planning programs; familial, psychological, social, political, and economic effects of family planning and contraception.
2. Antecedents, processes, and consequences (demographic, cultural, social, psychological, political, and economic) of population structure, distribution, growth, and change.
3. Family structure, sexual behavior, and the relationship between child-bearing patterns and child development.

¹This informal summary of the more specific, lower-level aims of the Program is a slightly modified version of a statement written by Pedro V. Flores. The formal statement of objectives, the list of “illustrative research areas” as well as the set of criteria for selecting awardees appear in SEAPRAP’s printed announcement.

4. Inter-relations between population variables and the process of social and economic development (housing, education, health, quality of the environment, etc.).
5. Population policy, including the interaction of population variables and economic policies, policy implications of population distribution and movement with reference to both urban and rural settings, and the interaction of population variables and law.
6. Evaluation of on-going population education programs and/or development of knowledge-based population educational programs.
7. Incentive schemes — infrastructures, opportunities; overall economic and social development programs.

The responsibility for achieving the program objectives and otherwise ascertaining that the program was functioning as conceived rested on the Program Committee. The Committee thus assumed as its primary function that of formulating policy, reviewing it regularly, and making revisions on it as necessary. Its second major function was to examine and judge applications and select the program awardees. Aside from these two major responsibilities, Committee members also served as program representatives in their respective countries, facilitated for the Program Coordinator (see below) contacts with individuals and institutions or undertook to make these contacts themselves, and provided technical consultation on proposals. Each Committee member was originally expected to serve a fixed term of two years. However, this norm was abandoned later as considerations of continuity and teamwork began to have a higher priority than the impersonal limiting rule of tenure.

Formal Committee meetings were held twice a year, and it was at these meetings that, as a group, Committee members performed the major functions with which they were charged. However, individual members could be and were consulted, or otherwise called upon for assistance, at various other times.

The Program Coordinator assumed the major responsibility for assisting the Program Committee in its tasks, and for promoting the program, processing applications for grants for eventual evaluation by the Program Committee, administering and monitoring each award from beginning to end, ascertaining that program output in terms of the research reports were reproduced and circulated regularly and expeditiously, and performing all the other duties that are expected of an executive officer of the program on a day-to-day basis. In his duties the Program Coordinator was supported by a Program Assistant.

Throughout its lifetime, SEAPRAP's operations had great stability. Nonetheless, some significant changes did occur. One was the unfortunate passing away of Iskandar in 1976. His place in the Committee was later assumed by Masri Singarimbun of Gadjah Mada University. In April-June 1977 a mid-term evaluation of the program was undertaken by Gerard Rixhon (1977). SEAPRAP's performance in achieving its three formal objectives was assessed, as were the mechanisms used in achieving them, namely, the administrative procedures, the Program Committee's functions, the Program Coordinator's functions, the adviser-advisee relationship, and the provision for the use of the grantees' national language in the writing of project proposals and reports. Rixhon's findings, complemented by a separate evaluation undertaken by the Project Coordinator were considered at length in the subsequent Program Committee meeting and taken into account in discussions of program policy. One of the more immediate results was the revival of the idea that SEAPRAP should be based in a Southeast Asian regional institution. Accordingly, in June 1978, the SEAPRAP program office was transferred to the Institute of Southeast Asian Studies. In its new home the Program shared its coordinating unit with another Institute-based program, the Southeast Asian Studies Program (SEASP), thus reducing administrative costs. Flores remained with the

IDRC and the Program Coordinator's job passed on to Wilfredo F. Arce, who was on leave from the Ateneo de Manila University's Department of Sociology and Anthropology.

One issue that was discussed at some length had to do with the substantive contribution that research projects were making, either to the stock of knowledge on population issues or to policy making and program planning. At the end of it, the Committee reaffirmed that, given SEAPRAP's clientele, which consisted of young and relatively inexperienced social scientists, the objective of producing a desirable substantive report *per se* had to be balanced by the objective of providing training experience in research for the grantee.

An appreciation of the broader norms and procedures that SEAPRAP followed is better obtained from a description of their operation in the annual cycle of SEAPRAP activities.

These activities began in late November, when the printed announcement and a form letter were mailed from the Singapore office to various institutions and individuals in the region. The announcement described SEAPRAP research awards, and invited applications from qualified individuals for these awards. The form letter called attention to the next deadline for submitting all applications (in this case 15 March), and asked the recipient to give the announcement as wide publicity as possible and to encourage qualified individuals to apply for the grants. At the same time separate letters were sent to individuals who had made more recent inquiries, or who had otherwise indicated interest in applying for grants, or who knew others who had this interest.

By the second week of December the Program Coordinator wrote the grantees with on-going projects and selected individuals — such as chairmen of social science departments in tertiary educational institutions, officials in population programs, advisers of grantees — requesting appointments to see them in late January or early February. The grantees were told that the visit constituted part of the monitoring system of SEAPRAP-financed projects, as indeed it was; but they were also asked for help in arranging meetings between potential applicants for grants and the Program Coordinator.

The actual travel through the region took about three weeks. It was helpful to SEAPRAP because the Program Coordinator came face to face with young social scientists undertaking projects, with potential grantees, and with facilitators of projects. It was helpful to the latter as well, because they could discuss the program as it affected them on a face to face basis with a program representative.

As the 15 March deadline approached, the Coordinator and his Assistant tended to spend more and more of their time attending to applications as they arrived. The papers were checked for completeness; letters of acknowledgement and/or requests for missing information were sent. Proposals written in the national language (true of many Thai proposals and of almost all Indonesian proposals) were translated to English by knowledgeable but non-commercial translators. The Program Coordinator read each proposal carefully and wrote his evaluation and/or added other information about the applicant for the benefit of Program Committee members.

A photocopy of all application papers and various reports and summaries were sent to each of the Program Committee members at least three weeks before the scheduled meeting. At this point, work on the application papers and related reports shifted to the Program Committee members. They read each application and proposal carefully, prepared notes for the expected discussion on them, and gave the submission a rating before the meeting.

The first meeting of the year was held during the first week of May, the venue being rotated among the different countries of the region. Each meeting usually lasted for two days. The first day and, in some cases, part of the second day, was devoted to discussing

the various applications, and deciding on who were to receive awards and what conditions, if any, were to be imposed. The criteria used in judging research proposals were the following:

1. relevance of the proposed research to current issues in population in the particular countries of Southeast Asia;
2. its potential contribution to policy formulation, program implementation, and problem solving;
3. adequacy of research design, including problem definition, method of procedure, proposed mode of analysis, and knowledge of literature;
4. feasibility of the project, including time requirement, budget, and availability, accessibility, and reliability of data;
5. applicant's potential for further development.

The second part of the meeting was devoted to discussion/resolution of policy issues. Towards the end of the program, when ideas for extending it or putting up a successor program were discussed, the policy part of the meetings was generally extended to another day.

As a matter of routine, one representative from each of the two funding agencies were invited to the meetings. Simmons represented the Ford Foundation; when he was reassigned to New York, John C. Cool took his place. Jacques Amyot and, later, Flores, represented IDRC. The representatives could not vote on decisions, but they participated fully in the discussions and their contribution in this regard was always appreciated.

Applicants for awards were informed of the results immediately afterwards. The greater number of letters went to those whose proposals were summarily rejected for being weak on most of the criteria. Other proposals that were rejected showed promise of improvement if appropriate revisions could be made. In their cases, the proponents were given the necessary feedback and were encouraged to undertake the revisions, usually with the suggestion that they do so in consultation with a more senior social scientist in the area. Some applicants accepted the suggestions, re-submitted their proposals, and went on to complete their projects successfully. Among those whose proposals were approved, a few were considered ready for immediate implementation; in these cases formal grant letters were simply sent for acceptance by the proponents. For most of the proposals that were approved the Committee attached conditions that needed to be fulfilled before a formal award could be made; for instance, that certain parts of the research design be strengthened or clarified, or that the proponent accept the services of an adviser whose expertise could help improve various parts of the research process, or the proposed budget needed adjustments. These conditions were conveyed to the proponents, and the issues were resolved by mail, usually within one month. In one case no agreement was reached and the application was voluntarily withdrawn.

The assistance of senior social scientists to serve as advisers to grantees was sought at this point. During the lifetime of the program a total of 35 advisers gave their assistance in 48 projects at virtually no expense to the program. In this regard the cross-national composition of the Program Committee was an advantage because the members facilitated the identification of potential advisers or the request for their assistance for specific grantees. The advisership system was considered one of the strong points of the program.

By July, the awards for the first round in the annual cycle would have been finalized. Prior to this time, however, during the last week of May, the work for the second round of awards would have begun. Activities identical to those described above and undertaken at the same pace would have taken place. The deadline for submitting all applications would be 15 September, and all awards would be finalized in January of the following year, at the latest. Thus, it usually took some fourteen months to complete two

rounds of awards. However, activities for the two rounds overlapped in time and funding decisions on projects considered during those rounds took place within one year. Hence, program planning was made in terms of an annual cycle consisting of two rounds of awards.

Other continuing tasks were fitted in and undertaken throughout the awards cycle. One of the important tasks was the publication of the SEAPRAP Research Reports series. The purpose of the series was to circulate as quickly as possible and with the minimum processing and costs the research reports completed by the grantees. If the original was in another language the published work under the series was translated into English, given some technical editing, reproduced by stencil, and bound with a printed cover. About 200 copies of each issue were mailed free of charge to individuals, appropriate university entities, and population and family planning agencies.

Besides, the routine tasks of administering grants were attended to as a matter of course. These usually consisted of responding to requests for information or payment, sending regular reminders to grantees, corresponding with third parties — referees, advisers, superordinates — who could assist the grantee in the successful conclusion of a project.

Towards the end of the program, a fair amount of time was spent by program-connected personnel in formulating proposals, and undertaking the necessary follow-up correspondence and meetings with funding agency representatives, for the possible continuation of SEAPRAP.

The most effective means of conveying information on SEAPRAP to grantees, prospective grantees, advisers, university officials, and officials of population programs, and obtaining relevant information from them in return was face to face contact; for the most part, this was done by the Program Coordinator during his duty travel. Given the geographical coverage of the program, however, this medium was also the most expensive. Hence, maximum use was also made of the mail, telegram, and telephone systems.

THE RESEARCHERS

During SEAPRAP's first year of operation applications were received from Burma and the Indochinese states of the Khmer Republic, Laos, and South Vietnam in addition to Indonesia, Malaysia, the Philippines, Singapore, and Thailand. After 1975, however, only the last five mentioned countries were effectively participating in the program through the regular submission of individual applications. For the most part, therefore, further analyses relative to the awards will be confined to these five countries.

The Applicants and Awardees

The first selection session was held in December 1974, the twelfth and last in May 1980. The lifetime total of applications received from nine Southeast Asian countries was 434. An average of 35 applications were thus examined per meeting: the number considered in one meeting ranged from six to twelve, the average being ten. A total of 125 awards were made by the program during its lifetime. The total cost of these awards was US\$437,570. Individual awards ranged from US\$1,541 to US\$6,573 and averaged US\$3,501, sums that are appreciably lower than the advertised normative maximum of US\$7,500 per grant. The data on applications received and awards made are summarized in Table 1.

One pattern that is immediately evident in the summary is that the order of countries in terms of the number of applications received is as follows: Indonesia, the Philippines, Thailand, Malaysia, and Singapore. Parenthetically, this order is consistent with the population sizes of the five countries. On the other hand, the order is completely reversed when the countries are ranked in terms of the awards made as a percentage of total

TABLE 1
Applications Received and Awards Made, by Country, December 1974 Through May 1980*

| Country | Applications | | Awards | | Awards as % of Applications |
|-----------------|--------------|------|--------|-------|--------------------------------|
| | No. | % | No. | % | |
| Burma | 1 | 0.2 | 0 | 0 | 0 |
| Indonesia | 184 | 42.4 | 32 | 25.6 | 17.3 |
| Khmer Republic | 1 | 0.2 | 0 | 0 | 0 |
| Laos | 1 | 0.2 | 0 | 0 | 0 |
| Malaysia | 37 | 8.5 | 18 | 14.4 | 48.6 |
| Philippines | 99 | 22.8 | 30 | 24.0 | 30.0 |
| Singapore | 5 | 1.2 | 3 | 2.4 | 60.0 |
| Thailand | 96 | 22.1 | 42 | 33.6 | 43.8 |
| Vietnam (South) | 10 | 0.3 | 0 | 0 | 0 |
| TOTAL | 434 | 99.9 | 125 | 100.0 | |

* Excluded: One application each from Bangladesh, Fiji, and the United States; all indications were that the applicants involved were not Southeast Asians and were, therefore, not eligible for awards. Also, one application from Malaysia which received approval for an award but was withdrawn before the award could be finalized; and one institutional application from the Philippines.

applications. As the presentation proceeds, other patterns that may be associated with this will be noted.

It should be reiterated that the data presented in Table 1 use applications and awards as units of enumeration. The number of *individuals* involved differs somewhat, although the pattern of distribution remains basically the same. Table 2 summarizes the relevant data and takes account of the following information:

1. Some applications were initially rejected because of weaknesses noted in the proposed project; however, the applicants were encouraged to correct these

TABLE 2
Applicants, Awardees, and Awardees as Percentage of Applicants, by Country, December 1974 Through May 1980*

| Country | Applicants | | Awardees | | Awardees as % of Applications |
|-----------------|------------|------|----------|-------|----------------------------------|
| | No. | % | No. | % | |
| Burma | 1 | 0 | 0 | 0 | 0 |
| Indonesia | 151 | 38.4 | 32 | 25.0 | 21.2 |
| Khmer Republic | 1 | 0 | 0 | 0 | 0 |
| Laos | 1 | 0 | 0 | 0 | 0 |
| Malaysia | 33 | 8.4 | 17 | 13.3 | 51.5 |
| Philippines | 99 | 25.2 | 32 | 25.0 | 32.3 |
| Singapore | 4 | 1.0 | 3 | 2.3 | 75.0 |
| Thailand | 94 | 23.9 | 44 | 34.4 | 46.8 |
| Vietnam (South) | 9 | 2.3 | 0 | 0 | 0 |
| TOTAL | 393 | 99.2 | 128 | 100.0 | |

* Excludes one Malaysian whose application was initially approved but was withdrawn before the award could be finalized, and one application from an institution in the Philippines.

- weaknesses (the appropriate feedback being provided), and to submit the revised version in the next round of awards. Among these second submissions ten were approved; one was a joint application by two individuals. The number of applications involved, therefore, was 22 but the number of individuals only
2. On the other hand, ten re-submissions were not approved. The number of these applications involved, therefore, was 22 but the number of individuals only 12.
 3. Some applicants submitted two or three applications at different times with different proposals. There were 12 such individuals. Each of them received one award, but among them they submitted a total of 27 applications.
 4. A total of 17 individuals submitted two or more different applications each, either at the same time or at different times. All these applications, totalling 35, were rejected.
 5. On the other hand, two individuals submitted two applications, both of which were accepted. One of these applications was made jointly with a third individual.
 6. Other joint applications included two pairs which received awards, one from a trio which also received an award; and five pairs and one quartet which were rejected.

In Table 2 multiple applications from one individual are reduced to one. All individuals who received two awards are counted once, as awardees. Every individual who submitted two or more applications but received an award in one of them is counted once as awardee. All other individuals are treated as having applied only once. On the other hand, all individuals included in one joint application are counted separately.

Residence

Tables 3 and 4 provide some measure of the extent to which SEAPRAP was able to attract applications from and make awards to scholars outside each country's metropolitan area. Of the 381 applications received 243, or 64 percent, originated from areas outside the national metropolises. In terms of awardees "other areas" also accounted for the highest proportion, 66, or 54 percent, of the 123 awards made to applicants within the region. (The applications that originated from abroad are not considered here since the eventual places of residence of the individuals concerned are not known.)²

TABLE 3
Area of Residence, by Country, by Successful and Unsuccessful Applicants

| Country | Successful Applicants | | | Unsuccessful Applicants | | |
|-------------|------------------------|----------------|--------|-------------------------|----------------|--------|
| | National Metropolis | Other Areas | Abroad | National Metropolis | Other Areas | Abroad |
| Indonesia | 2 | 30 | 0 | 6 | 113 | 0 |
| Malaysia | 13 | 2 | 2 | 9 | 0 | 7 |
| Philippines | 11 | 21 | 0 | 14 | 51 | 2 |
| Singapore | 3 | 0 | 0 | 1 | 0 | 0 |
| Thailand | 28 | 13 | 3 | 31 | 13 | 6 |
| TOTAL | 57 | 66 | 5 | 61 | 177 | 15 |

²Applications from Southeast Asian nationals studying in universities abroad were considered eligible for awards. Invariably the applications received asked for support in completing the doctoral dissertation. In judging these applications the Program Committee adopted a number of important norms in addition to the publicly announced ones. First, they were considered of low priority, the rationale being that sponsors of these students had the obligation to provide material support for the completion of the doctoral dissertation. Secondly, there had to be sufficient evidence that the applicant was returning to the Southeast Asia region upon completion of the degree. Thirdly, in the event that the application was approved for funding, the program would provide support for the research project only; this norm precluded, in particular, tuition and related university fees, maintenance stipend, and travel support to and from the region.

TABLE 4
Number of Areas In-country Where Successful and Unsuccessful Applicants Reside*

| Country | No. of Areas | |
|-------------|--------------|--------------|
| | Successful | Unsuccessful |
| Indonesia | 20 | 31 |
| Malaysia | 2 | 1 |
| Philippines | 11 | 24 |
| Singapore | 1 | 1 |
| Thailand | 3 | 4 |
| TOTAL | 37 | 61 |

* Excludes five successful and 15 unsuccessful applicants residing abroad.

Evidently SEAPRAP's success in attracting applications was greatest in Indonesia and the Philippines. In Indonesia the 151 applications came from 31 different places, with slightly more than five percent from the capital city of Jakarta. Of the 32 successful applicants 94 percent also came from places outside Jakarta. In the Philippines 97 applications were received from individuals residing in 24 different places in the country; 85 percent of these applications originated from areas outside Metro Manila. Similarly, of the 32 awardees 66 percent were residents of provincial areas. In contrast, nearly all of the applications from Thailand originated from Bangkok and Chiang Mai; in Malaysia nearly all applications came from the Kuala Lumpur area, with two from Penang.

These patterns are understandable when one considers the distribution of tertiary educational institutions (which yielded most of the individuals submitting proposals) in the five countries. Singapore, a small city-state, had two universities during the time that SEAPRAP was in operation. As for Malaysia, aside from the agricultural university in Serdang, the country has a university in Kuala Lumpur and another in Penang. Tertiary institutions are greater in number in Thailand. But none of these three countries have the proliferation of colleges and universities reaching out to more areas outside the nation's metropolis than Indonesia and the Philippines.

This proliferation also probably provides part of the explanation for the awards as percentage of applications pattern noted in Table 1. However, almost any such explanation will require more elaboration and supporting data than would be warranted in this brief presentation; hence, it is better to leave the matter at the suggestion level.

Education

Table 5 presents a summary of the educational background of the awardees and, to a certain extent, the applicants who were not given awards. A "doctorate degree" refers to the Ph.D., D.Ed., D.P.H., and D.P.A. "Graduate studies" includes any formal academic work after the first degree and before the doctorate degree. The category includes, in particular, the Master's degree and, in Indonesia, the *doctorandus* and the *sarjana* as well. The "professional degree" category is included for Indonesia because some applicants in that country presented degrees either in engineering or medicine as their sole formal qualification. The "first degree" is the bachelor of arts/science degree in the American system, and includes the *sarjana muda* for Indonesia. An "undergraduate" is someone who has not completed this degree.

As explained previously the Program introduced a deliberate bias in favor of beginning researchers. This, plus the need to maintain an acceptable research standard, resulted in applicants with graduate-level training being considered more favorably than

TABLE 5
Highest Education Achieved, by Country and by Successful and Unsuccessful Applicants

| Country & Education | Applicants | |
|---------------------|------------|--------------|
| | Successful | Unsuccessful |
| Indonesia | | |
| Doctorate degree | 0 | 2 |
| Graduate studies | 28 | 86 |
| Professional degree | 0 | 8 |
| First degree | 3 | 9 |
| Undergraduate | 0 | 3 |
| Unknown | 1 | 11 |
| TOTAL | 32 | 119 |
| Malaysia | | |
| Doctorate degree | 2 | 2 |
| Graduate studies | 12 | 7 |
| First degree | 3 | 2 |
| Unknown | 0 | 5 |
| TOTAL | 17 | 16 |
| Philippines | | |
| Doctorate degree | 0 | 7 |
| Graduate studies | 32 | 30 |
| First degree | 0 | 0 |
| Unknown | 0 | 22 |
| TOTAL | 32 | 59 |
| Singapore | | |
| Doctorate degree | 0 | 0 |
| Graduate studies | 3 | 1 |
| First degree | 0 | 0 |
| Unknown | 0 | 0 |
| TOTAL | 3 | 1 |
| Thailand | | |
| Doctorate degree | 8 | 3 |
| Graduate studies | 34 | 27 |
| First degree | 2 | 0 |
| Unknown | 0 | 20 |
| TOTAL | 44 | 50 |

those with higher or lower educational background. Thus, an applicant with a doctorate degree was generally considered over-qualified unless the degree had been obtained less than three years prior to application. The paucity of awardees with doctorate degrees will thus be understandable. By the same token, awardees whose academic training consisted only of the first degree should be considered exceptional. No other patterns in the table seem sufficiently remarkable to merit pointing out.

However, a related set of data should be cited. The grantees were classified into those who had completed their education entirely in their home countries and those who had been educated abroad. The data show that, almost invariably, education abroad meant studies in Europe, North America, and Australia. As a group, the awardees are largely

home-grown in that 60 percent of them obtained their education entirely in their home countries. But when the group is broken down into nationalities different patterns emerge. Of the Indonesian grantees 16 percent had studied abroad; so did six percent of the Filipinos, 35 percent of the Malaysians, 73 percent of the Thais, and all of the Singaporeans. Relating these data to those presented in Tables 1 and 2, it is clear that the nationalities with higher rates of awardees relative to applications also have higher percentages of awardees who were educated outside their home countries.

Thesis Versus Non-Thesis Projects

The Program considered graduate students who were about to undertake their research for the thesis or dissertation as one important category of constituents. Indeed 40 thesis writers or 31 percent of the total awardees received assistance from the Program. Nonetheless the response in this regard varied from country to country. In Indonesia only one (three percent) of the total number of awardees was a thesis writer. Over 20 percent of awardees from Thailand were thesis writers. The percentage goes to nearly half (47 percent) in the case of Malaysia. On the other hand, the awards to Filipinos went mostly to thesis writers (63 percent), and in Singapore two of the three awardees were in this category.

Completion Record

The record of completion of projects, as reported during Program Committee meetings, was always considered good. Unfortunately, as this article is being written, the data in this regard is no longer complete. In the absence of such data it can only be said that there were probably as many grantees who completed their projects on schedule as those who did not.

Sex, Age, and Marital Status

To conclude this description of the grantees as individuals some very basic characteristics should be mentioned. Males were predominant (72 percent of all grantees), but, as with some other characteristics, the distribution varied appreciably among the different countries. In Indonesia almost all of the awardees were male (94 percent), while Malaysia and Thailand had close to even distribution between the two sexes (47 percent male in Malaysia and 52 percent male in Thailand). But the Philippine grantees were predominantly female (67 percent) and all three Singaporean grantees were female. The marital status of the grantees in the five countries were as follows: Indonesia, 91 percent married; Malaysia 41 percent (of which two are unknown), the Philippines 50 percent, and Singapore 100 percent.

The deliberate bias in favor of beginning social scientists in the awarding of grants were augmented by an age criterion, the norm being fixed at about 35 years. The extent to which this norm was followed may be seen from the record itself. The grantees as a whole ranged in age from 23 to 39 years old; the mean was 31 years. In Indonesia the age range was 26 to 39 years, the mean 34 years. In Malaysia the equivalent figures were 23 to 36 and 27 years; the Philippines 23 to 38 and 29 years; Singapore 25 to 36 and 30 years; and Thailand 23 to 40 and 32 years.

Utilization

If only for the record, it is important to make a statement on how the research results found by the grantees were utilized. To begin with, one of the major objectives of the Program, as originally conceived, was utilitarian, i.e., to generate research and analysis that should be fed back to individuals involved in the planning and implementation of population programs in the region. However, the mid-term evaluation alluded to earlier (Rixhon 1977) found this objective to have been marginally achieved; it also indicated

the conceptual emphasis on this objective to be unrealistic when the level of training and experience in research of the clientele is taken into account. In fact, the evaluation found that, in general, the Program's main impact lay in the opportunity it provided young social scientists for improving their research skills, and that this was probably the more sensible direction to continue to follow. The Program accepted this part of the evaluation and introduced no new effort to achieve the utilization part of the original objectives.

From the records there are no clear indicators of the extent to which SEAPRAP research reports were utilized for population program purposes. It may nonetheless be pertinent to mention that 91 percent of awardees were affiliated with universities at the time they applied for grants; only about six percent were evidently involved in population programs; the remaining awardees had other institutional affiliations. The mailing list for SEAPRAP Research Reports should also be mentioned. It indicates that the bulk of the reports, distributed free of charge, went (mainly upon request) to universities, and only about five percent to population program agencies. The rest of the copies went to foundations, research institutes, and SEAPRAP grantees. The availability of SEAPRAP research data and analyses to population program personnel was thus limited, unless it is assumed that this personnel took the initiative to consult university library holdings, or that they had access to copies of reports furnished SEAPRAP grantees.³

RESEARCH AREAS

Table 6 summarizes through the use of, hopefully, self-evident labels, the problem areas in which the awardees chose to undertake research. The total number of topics is slightly higher than the number of awards or awardees. This is because each of the several research projects could be classified under more than one category and was so classified. For instance, one study sought to verify the relationship between migration status and fertility behavior of a population of migrants in a given area; this study was classified under both migration and fertility.

On the contents of the table itself no elaborate comments seem necessary. It is clear that the topics that concerned most of the grantees were fertility, migration, and family planning. Perhaps the more pertinent comment should be addressed to the question: To what extent did the research projects make a contribution to the stock of knowledge on population issues in the region? At the height of SEAPRAP activities two important articles (Concepcion 1977, Jones 1978) reviewed trends on population research in the Asian region and identified research areas where more work needed to be done on an empirical basis. A more than cursory glance at these articles and the research reports written by SEAPRAP grantees suggests that making a fair judgement on SEAPRAP's contribution to the substantive literature will constitute a review article in itself and is probably a task better undertaken by someone with no extensive connections to SEAPRAP.

Proceeding, therefore, to the articles presented in this book, the collection is organized around three major themes which also comprise the first three sections of the book: fertility, population mobility, and family planning and techniques. The fourth section is a residual one in thematic terms; but it is substantively important in that it conveys the wider spectrum of research interests of a significant portion of the grantees.

³Each grantee received one copy of every report that was circulated after he/she became a grantee. The author of a particular report was given four extra copies on the understanding that these would be given to individuals and/or institutions that participated in the research project or that would otherwise be interested in the research report. The information on the actual distribution of these copies has not been systematically compiled, but it is known that at least some of these copies found their way to local family planning agencies.

TABLE 6
Problem Areas in Which SEAPRAP Awardees Undertook Research

| Topic | Countries | | | | | | Total |
|--|-----------|----------|-------------|-----------|----------|-----|-------|
| | Indonesia | Malaysia | Philippines | Singapore | Thailand | | |
| Fertility | 8 | 2 | 15 | — | 10 | 35 | |
| Migration (Population Mobility) | 5 | 2 | 5 | 1 | 7 | 20 | |
| Family Planning | 6 | — | 1 | 1 | 7 | 15 | |
| a. Family Planning, General | 2 | 1 | 1 | — | 4 | 8 | |
| b. Family Planning Programs | 3 | 1 | 4 | — | — | 8 | |
| c. Knowledge, Attitude, and Practice (KAP) relative to Family Planning | 1 | 2 | 2 | 1 | 4 | 10 | |
| Birth Limitation Techniques | — | 1 | 4 | — | 3 | 8 | |
| Labor Force Participation | 3 | — | — | — | 3 | 6 | |
| Urbanization | 3 | — | — | — | 2 | 5 | |
| Family Size | 2 | — | — | — | 3 | 5 | |
| Population Education and Communication | — | 3 | 1 | — | 2 | 6 | |
| Population (General) | 2 | 1 | 1 | — | 1 | 5 | |
| Children | — | 3 | — | — | — | 3 | |
| Demographic Economic Analyses | — | — | 2 | — | — | 2 | |
| Husband-Wife Communication | 3 | 2 | — | — | 3 | 8 | |
| Not Elsewhere Classified | 38 | 18 | 36 | 3 | 49 | 144 | |
| TOTAL | | | | | | | |

As indicated previously, these fifteen articles were selected from among the research reports submitted by the grantees, and condensed for reasons of space. In general, no hard and fast rules were followed for including articles in the volume. There were, of course, some basic factors that were considered. One was a limitation; at the time the selection was made only slightly over 70 percent of the research reports had been completed and were on hand. Later reports could not be considered for inclusion. Reports that were published elsewhere were similarly excluded. An attempt was made to see that the topics of greatest concern to the grantees are commensurately reflected in the volume. Some standard of quality, intuitively arrived at, was set for the reports that were to be included. Care was also taken to see that each country of origin of awardees received some representation in the volume. But, all in all, it was not easy to set and follow a defensibly objective set of criteria, nor was such a standard eventually deemed to be desirable. It is thus better to consider the papers presented in the pages that follow as simply one set chosen on the intangible criterion of providing a sense of the kind of work that the SEAPRAP grantees did in the region. Presumably an entirely different set of papers could achieve the same purpose just as well. But sooner or later one has to write *finis* to the selection process.

AN OVERVIEW OF THE STUDIES

To initiate our brief overview of the fifteen studies included in this volume, it would be important to stress the need for population-related research in the Southeast Asian region, more precisely, within Southeast Asian countries. There stems a conscious effort among policy-makers and social scientists in these countries to ensure an effectively formulated and implementable population policy by way of useful feedback from research undertakings. Issues emanating from rapid population growth are commonly felt and, to some extent, remain unclarified. More understanding of the dynamic processes involved is needed to gain further insights into the relevant factors and features of the population problems confronting such countries. It is also necessary to gain more insights into the effectiveness of the measures taken to curb these problems and the consequences that have resulted from these measures. This is, undoubtedly, a major task. Much work is yet to be done despite the growing amount of research that is being undertaken.

The 15 studies included in this volume should be regarded as a positive response to this need. The individual efforts shown by these young social scientists are commendable in the sense that their research has shed valuable knowledge about some facets of the problem, more specifically in the areas of fertility, population mobility, family planning, the evaluation of family planning programs, and the environmental influence of demographic behavior. With no exception, these concerns have direct policy implications. Although their analytical approaches and skills are that of apprentices in the craft of research, these young scholars have successfully demonstrated the viability of viewing and assessing population issues from a localized context. A sizeable number (10 out of 15) of these studies are regarded as local-area studies (see Table 7). This should be seen as a commendable concern because their descriptive assessments of population dynamics and evaluations of fertility control program efforts on the local level serve as valuable contributions to national policy-making. The lack of flexibility and applicability to the local situation have become major shortcomings of national population policy implementation. Another common orientation shared by these studies is their analytical approach at viewing facets of the population problem, more specifically, in trying to assess a host of correlates and factors related to demographic behavior and consequences emanating from it. These efforts reinforce the current major thrust of population research which emphasizes the assertion that demographic behavior has direct linkages and implications to economic and societal development. In more ways than one, these

researchers have adopted the population and development framework. Included in their assessments is a mix of social, economic, anthropological, and psychological correlates hypothesized as relevant in their particular research concerns (see Table 7).

TABLE 7
Analytical Features of the 15 Studies of SEAPRAP Grantees Included in This Volume

| Analytical Feature | No. of Studies | % of Total |
|---|----------------|------------|
| Scope of the Study | | |
| Local | 10 | 66.7 |
| National | 5 | 33.3 |
| Data Source | | |
| Primary data | 13 | 86.7 |
| Secondary data | 1 | 6.7 |
| Both | 1 | 6.7 |
| Time Period | | |
| Early 1970s | 13 | 86.7 |
| Late 1970s | 2 | 13.3 |
| Analytical Concerns | | |
| Descriptive | 10 | 66.7 |
| Evaluative | 4 | 26.7 |
| Both | 1 | 6.7 |
| Type of Statistical Analysis | | |
| Cross-tabular/bivariate | 10 | 66.7 |
| Multivariate | 5 | 33.3 |
| Variables Considered | | |
| Social, economic, demographic | 2 | 13.3 |
| Anthropological | 1 | 6.7 |
| Social, demographic | 1 | 6.7 |
| Social, psychological | 3 | 20.0 |
| Social, economic, demographic, and marketing | 1 | 6.7 |
| Social, economic, demographic, and psychological | 7 | 46.7 |

A number of other general observations can be made about the contributions included in this volume. These are more vividly expressed in Table 7. A large percentage (86.7 percent) of these studies are based on primary data collected through sample surveys conducted in the early 1970s. These studies are predominantly descriptive in nature and have limited their analysis to cross-tabular results. This is reflective, perhaps, of the contributors' relative inexperience in doing research and the lack of adequate computer facilities in their institutions, thereby inhibiting the application of more rigorous analytical techniques. However, one third of the studies can be considered as more evaluative in the sense that these have attempted to assess the explanatory capacity of a host of factors in influencing demographic behavior. Among the multivariate techniques

applied are: regression analysis, factor analysis, discriminant analysis, and additive multiple classification analysis. On the whole, all the studies have shown a genuine interest in revealing results which are worth taking note of and which will be discussed briefly in the subsequent paragraphs.

The four studies included in the section on Fertility are assessments based on national surveys and secondary data. Syahrudin analyzes 12 socio-economic and demographic determinants affecting fertility levels in Indonesia. Two basic equations are tested, the fertility determinant equation and the threshold hypothesis using three alternative models, for the purpose of isolating the most important determinants of fertility. Regression analysis is applied to test the equations. The demographic determinants which are found to be most important include marriage duration and wife's age at first marriage. Both determinants exhibit negative effects on fertility. The study likewise shows that the wife's work status has a negative impact on fertility, a finding which corroborates those of other studies done in other countries.

In Peninsular Malaysia, Fong analyzes the effects of socio-economic determinants on fertility, as measured by crude birth rates and general fertility rates estimated for the 70 administrative districts. Data for the 26 socio-economic variables and the two fertility measures are drawn from published and unpublished statistical sources. Three types of results are analyzed, i.e., for the entire set of districts, and for the rich and the poor districts, as classified according to income. Principal-components analysis is applied on the socio-economic variables to derive underlying meaningful factors which are later used as independent variables in the regression equations. Five factors are identified for the entire set of districts and for the rich districts. These are: (1) status of economic development and literacy; (2) child mortality; (3) status of women; (4) availability of social amenities; and (5) demographic pressure. All of these factors, except the fourth factor (availability of social amenities), are identified in the case of the poor districts. The factors that contribute substantially in explaining fertility levels are demographic pressure and status of women. Both exhibit negative effects on the dependent variable.

The research work done by de Guzman is one of the more recent assessments of social mobility patterns in the Philippines. Occupation is used as the indicator of social position. Intergenerational and intragenerational mobility patterns are depicted from the 1973 National Demographic Survey subsample of males aged 25 to 64. The main findings can be viewed in consonance with the impact of modernization in the country. Evidence shows there is less rigidity in the occupational structure. Upward mobility is observed to be more substantial than downward mobility and short-distance mobility tends to be more predominant. The effect of social mobility of fertility is assessed by testing the additive multiple classification model. It is observed that social mobility has the effect of depressing the fertility of upwardly mobile and downwardly mobile couples.

Also concerned with fertility determinants, Pichit considers 34 socio-demographic and economic factors and analyzes their influence on rural and urban fertility in Thailand. Data from a national sample survey, the Longitudinal Study of Social, Economic, and Demographic Change in Thailand, are utilized for this study. In the descriptive phase of the analysis, the extent and magnitude of association between the socio-demographic and economic variables with fertility (characterized by mean number of live births) is assessed. The significantly associated variables are later used as independent variables in the regression analysis for the rural and urban samples. Aside from the rural versus urban distinction made, marriage duration is used as a control variable in the descriptive and multivariate phases of the analysis. More socio-demographic and economic variables are found to be significantly associated with urban fertility than with rural fertility. Among those included as independent variables in the regression model are: wife's age, number of infant deaths, wife's age at first marriage, wife's education, wife's desired number of children, wife's work experience before marriage, number of years wife lived

in urban area, wife's mass media exposure, wife's knowledge, attitudes, and practice of family planning, husband's type of employment, wife's desire to depend on children in old age, and wife's ethnicity. These independent variables show a higher combined effect on fertility, particularly in the higher years of marriage duration.

Two of the three studies on population mobility are done in a specific urban center of the grantees' respective countries. Zablan studies rural migrants in Cebu City, the second most prominent urban center in the Philippines.

The study concerns itself with evaluating factors from the standpoint of the individual migrants, i.e., perceived factors, as well as factors influencing their decision to migrate to Cebu City, the area of destination. These factors include family influence, presence of relatives in Cebu City, and types of sources of information about living conditions in the area of destination. The study also looks into migration consequences from the individual level in terms of adaptation and from the aggregate level in terms of the housing situation and the effects of migration on the city's population. Both primary and secondary data are used in the analysis, which is mainly descriptive in nature. Rural migration to this particular urban center is characterized basically as intra-regional and, more frequently, intra-provincial. Economic factors and reasons are observed to be the most important and these are reinforced by family approval and the presence of relatives in Cebu City who likewise serve as information sources. The main difficulties encountered by migrants in adapting to city life are poor or substandard living conditions and lack of economic opportunities. Rural migrants are predominantly from the young age groups and this has direct implications on the city's population composition, particularly with respect to age structure and labor force participation.

The second study included in this section analyzes the role of labor migration in the industrial development of Haad-Yai, an urban center located in the southern part of Thailand. Valaiporn examines the employment characteristics of migrants by industry-type and determines the migrant composition of the industrial manpower of that growth center. Both secondary and sample survey data are utilized for the study. Among the questions that are asked of the migrant sample are: reasons for migrating, mode of adaptation in terms of living accommodations, whether or not seeking employment, earning capacity, and job satisfaction. Labor migration to Haad-Yai is mainly intra-regional. Economic reasons (e.g., seeking employment) are often cited as the main reason for migrating. Migrants are generally stable in their present employment but earn a low income. It is also found that certain industrial groups absorb a considerable proportion of migrants who were formerly engaged in farm labor.

Tai examines the effects of relocation in Singapore's recent public housing program. The study puts this problem into perspective by tracing the historical developments that led the government to formulate and include this program among the strategies for efficient population planning. A sample of families living in nine public housing estates were interviewed to gain some insights into their modes of adaptation to their new environment, their degree of satisfaction with their living accommodations which include aspects like transportation facilities, commuting time, physical housing amenities, and neighbors. The families are generally satisfied with their present housing conditions but cite that relocation has incurred financial burdens like higher transport expenses and longer commuting time to work. Interaction with neighbors is rather limited but they perceive that the housing estates are congenial in promoting integration with other ethnic groups.

Family planning programs have aroused the research interest of social scientists in undertaking studies to evaluate these programs' effectiveness in depressing high fertility levels and, more importantly, their acceptability by the target group — the married couples. The four studies included in the third section of the volume are, in one way or another, concerned with this issue. Setiadi's study assesses the significance of selected

socio-psychological variables in influencing the married women's decision to practice family planning. The study is confined to a sub-district in East Jakarta. The analysis compares two groups, namely, the acceptors and non-acceptors, in terms of their knowledge, attitudes, and practice of family planning, influence of specific reference groups, modernity attitudes, ideal family size, sex preference for children, and perception of family expenditures on children's education. Family planning attitudes are found to be generally favorable, even among non-acceptors. As expected, more knowledge of family planning methods is more common among acceptors — this information is acquired mainly from family planning fieldworkers and health personnel. Husbands play an important role in influencing the married women's decision to practice family planning. In another study, Promboon evaluates the impact of the National Family Planning Communication Support Program in a specific Thai province, Nakorn Sawan. Results of two sample surveys on married couples are compared to assess the effects of the program considering varying levels of implementation. The study's main purpose is to measure changes in the level of knowledge, attitudes, and practice of family planning of married couples, and exposure to family planning communication inputs in terms of general contact, interest, and actual reception. Although an increase in KAP and in exposure to communication inputs is noted, these are too minimal to be regarded as impressive and conclusive. Nonetheless, the radio is considered to be an effective means of family planning communication. Interest is shown in obtaining more information about family planning from health personnel and mobile motivation inputs.

The effectiveness of the IUD as a family planning method in reducing fertility among rural women is assessed by Cabaraban in Misamis Oriental, a Philippine province. The study compares fertility estimates for three groups of women, namely, IUD acceptors, "other methods" acceptors, and non-acceptors, during two time periods. It notes a decline in the fertility and number of pregnancies among IUD and other acceptors. A comparative assessment of the three groups is made with respect to such characteristics as age, marriage duration, number of children ever born at acceptance date and at interview date, and education. Additional characteristics of IUD users are likewise evaluated and these include: reasons for and decision of choice, usual complaints, and reasons for continuance and discontinuance. Among the main findings uncovered by the study with respect to the two types of users are: (a) these married women are in their early thirties; (b) they have been married longer and have a higher parity level; (c) they have attained advanced primary education; and (d) they have used the method for family limitation rather than for birth spacing. Some of the characteristics shared by IUD users are: (a) the decision to use the method is made jointly with the husband; (b) convenience is the main reason for acceptance; (c) minimal complaints have been registered about this method; and (d) discontinuance is due to expulsion and removal.

Another way of evaluating the efficacy of the family planning program, more specifically in the sale and distribution of contraceptives, is to gain some knowledge about the non-program users and why this group does not avail itself of the opportunities and benefits provided by official channels. Sieh tests the viability of the source of contraceptive supplies as a useful basis for market segmentation of contraceptive methods in Malaysia. The study addresses itself to the need for understanding the target segment, i.e., the end-users or, in this case, the contraceptive users. Four target segments are identified, namely, the ever-user program segment, the ever-user non-program segment, the ever-user both program and non-program segment, and the non-user segment. A comparison of these target segments is made with respect to three sets of independent variables, namely, socio-economic characteristics, KAP of family planning, and marketing of contraceptives. On the whole, a total of 22 profile (independent) variables is used in the analysis. Discriminant analysis, a multivariate procedure, is applied to

enable differentiating among groups. The market segmentation evaluation proves to be successful and the three profile categories are assessed to be efficient in varying degrees. The socio-economic and KAP variables are more powerful discriminators. Twenty-five profile characteristics of non-program users are determined by the study.

The four studies included under the fourth section of this volume deal with socio-cultural issues related to demographic behavior. This is a rich and promising research concern in population, particularly because much is yet to be understood with respect to cultural patterns, norms, and values underlying population dynamics and more specifically, family formation and fertility limitation. Luechai examines the roles of husbands and fathers in family planning, particularly their knowledge, attitudes, and practice (wife's use of contraceptives) and their role in decision-making with respect to children's education, marriage, occupation, and household expenditures and purchases. The study was done in rural Chiang Mai, a northern Thai province. Knowledge and approval of family planning among husbands is predominantly high. However, husbands feel that family planning practice is more a responsibility of their wives. Decision-making on family matters, as revealed, is a joint prerogative, but husbands claim that they have more say on children's marriages and occupations.

How acceptable is family planning in a matrilineal society? Naswida's study seeks to provide some answers to this question by focusing on the Minangkabau, an ethnic group in West Sumatra. The study is conducted mainly to explore socio-cultural features of a matrilineal society which either encourage or inhibit family planning efforts. Some of these features include choice of marriage partner, type of marriage, system of marriage (matrilocal or neolocal), the role of the *sumando* (husband) and *mamak* (oldest male child of the wife's side) in making family decisions, function of children, and responsibility in caring for children. The usual KAP variables are utilized as dependent variables of the study. A sample of families were interviewed to derive all this information. High approval of family planning is noted but only a few claim they are practicing family planning. Those who are more adverse to family planning are more adherent to traditional norms and customs.

Marbella's assessment of Filipino women entrepreneurs and their fertility behavior gives supporting evidence to women's active role and participation in economic opportunities and how this effectuates fertility reduction, as seen in terms of number of pregnancies and average years of child-spacing. The study examines the role of women pursuing a career in business, particularly their need to be freed from child rearing and close home management supervision. It also looks into the time and effort demanded by the women's work (extent of busyness) and how these have direct bearing on their fertility behavior. These relationships are viewed from two vantage points, namely, when these women initiated their entrepreneurial activities and during the height of their entrepreneurial career. Other relevant points considered by the study are practice of family planning, family planning methods used, economic security value of children, and egalitarianism in decision-making in the home and in the firm. The correlation between the entrepreneurial activities variables and fertility behavior is assessed to be negative, and is particularly significant during the height of entrepreneurship. The extent of family planning practice increases at the height of the women's careers yet the method most commonly used is rhythm. Children are not seen as future sources of economic security. Surprisingly, education and income are not related to fertility behavior.

An anthropological analysis of how population is influenced by ecological adaptation, more specifically, resource exploitation strategies, is done by Gomes. Two aboriginal groups are compared, the Negritos of Rual Post engaged in hunting and gathering, and the Temuans in Kg. Paya Lebar, a basically agricultural group. Both groups are found in West Malaysia. An examination of their ecosystems which include such features as the forest, *ladang* (cultivated environment), the rivers, and the Malay *kampung*, as well as

other salient cultural elements like their biophysical characteristics, language, social organization, and religion are seen in conjunction with their demographic characteristics and the vital events of fertility, mortality, and migration. Demographic information was collected through structured and in-depth interviews. Cultural and ethnographic data were gathered through participant observation. Fertility and mortality patterns differ for the two aboriginal groups. Higher fertility is exhibited among the Temuans which is attributed mainly to their sedentary lifestyle. High mortality is likewise evidenced among this group and is partly due to environmental influences and high-density living conditions which propagate disease more easily. Migration is a common feature for the two groups since the Negritos lead a nomadic existence and the Temuans have been forcibly driven from their area of residence by Malay settlers.

The studies in this volume should be regarded as promising beginnings. The readers may note that although interesting findings have been revealed, many facets of the research problems still need to be clarified and amplified. This could somehow be achieved by improvements in the analysis and by increased maturity and expertise in the craft of research. These young scholars have shown that this goal may one day be attainable.

We have not overlooked some minor problems in the preparation and editing of the present volume. A number of bibliographical references are incomplete in three of the articles. The authors were duly alerted but, unfortunately, their non-response to our request has forced us to retain these citations in their original form.