

## Perspectives on the Future of the Family Planning Program of Taiwan

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### I. Introduction

Taiwan has successfully completed the demographic transition. By 1983 it had attained the replacement-level fertility and the almost universal use of contraception which was its goal only 20 years earlier. Since then, fertility rates

have actually been below replacement levels.

We have been privileged to observe this remarkable transformation as consultants and collaborators in research with the Taiwan Provincial Institute of Family Planning. The Institute, under the aegis of the Department of Health, has played a major role in providing the services and the research base for these important

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註: 臺灣의 人口抑制政策이나 人口動向은 우리나라와 거의 유사하므로 本 論文은 我國 家族計劃事業의 推進方向을 設定하는데 유의할 것으로 판단되어 掲載한 것이며, Freedman 教授께 심심한 謝意을 表함(編輯者).

developments. Taiwan has been a highly regarded model for family planning programs in many countries. Much of what we will be saying draws on the work and reports of the Institute. However, our Taiwan colleagues are not responsible for our views or recommendations.

The central question today is what should now be the future course of the family planning program after the major transformations which have reached its original major demographic goals.

We want to discuss this in relation to five main issues :

1. How to continue to provide and improve high-quality family planning services, whether in the public or private sectors, to enable couples to have the children they want when they them.

2. How to maximize the quality of children born, from a genetic, health, and social point of view.

3. Whether the family planning or other programs can and should try to influence future fertility levels within their probable low fertility range.

4. How to contribute through population research to an understanding of the consequences of future demographic trends and to meet the problems created by the prospective demographic changes.

5. What organizational changes for providing high-quality family planning services and doing population research are needed to meet these four objectives in view of the advanced level of family planning practice and low levels of fertility.

## II. The Provision of High-Quality Family Planning Services

Taiwan has achieved the quantitative goal of a universal use of contraception. By 1985 the proportion of women 35-39 who had ever practiced contraception reached 92 percent, with 86 percent currently practicing--close to saturation levels. But, there is still much to be done to improve the quality of services and to solve special problems, whether they are in the public or the private sector. Possible policy emphases include :<sup>1</sup>

1. Continue to provide information and safe, convenient, and affordable supplies for family planning. This should include improvements from the point of view of the welfare of the couples involved, namely :

- improved contraceptive practice to reduce the incidence of abortion, now used by many couples to terminate unplanned pregnancies;

- improved contraceptive practice to provide methods that fit couples' lifestyles and maximize marital satisfaction.

2. Strengthen existing programs for young people to minimize the incidence of illegitimacy and premaritally conceived births with their attendant personal and social costs. In Taiwan the proportion of first births to married women that were conceived before marriage increased from 9 percent for women married in 1960-1964 to 33 percent for those married in 1980-1984 (Thornton and Lin, Chapter 7, forthcoming). The proportion reporting premarital sex with their future husbands increased from 10 percent for women married in 1960-1964 to 40 percent

for those married in 1980-1984. The family planning program already has mobile workers dealing with sex and family life education in schools, factories, and similar places. An evaluation of this service, if it has not already been done, should help to determine whether it should be expanded or modified.

3. Continue to emphasize the benefits of child spacing. Strategies for spacing, rather than limiting, births have become a primary concern of women and of the family planning program. In Taiwan the proportion of women reporting the initiation of contraception for spacing, rather than limiting, children increased from 17 percent in 1970 to 61 percent in 1985 (Chang, et al., 1987). This represents substantial progress.

4. Provide adequate information and medical backup for side effects of fertility control methods.

5. Provide special information and services related to new fertility control methods. For example, the new and effective contraceptive implant, Norplant, which is reversible and requires no further action for five years following insertion, has been evaluated in Taiwan. This method could become a substitute for sterilization, which had become the number-one method in Taiwan by 1985. With a rising divorce rate, being able to have children in a second marriage may become important to more people. In any case, a reversible method that is safe and highly effective would be preferred by many people over permanent sterilization.

6. Provide special services for the minority of couples still having unwanted pregnancies and births.

7. Explain to mothers the advantages of prop-

er breastfeeding, recognized by medical authorities as important for maternal and child health. The proportions of mothers breastfeeding and the duration of breastfeeding have been declining steadily in Taiwan (Huang, 1990.).

8. Provide poor women and those with some kinds of disabilities the information to increase their understanding that the health and welfare of their families may be better served with fewer rather than more children. The program already has special services for these needy populations.

9. Provide services to help infertile couples have the children they want.

10. Improve the quality of services to emphasize such matters as convenience, attention to hearing and meeting the concerns of the clients, providing choice among alternative safe, effective, and convenient methods, and having easy access to information and service, when problems arise. Quality of care is now receiving major emphasis by the United Nations Fund for Population Activities, the World Bank, the Population Council, and other major actors in the family planning field. The population Council has taken the lead in preparing relevant materials for quality of care initiatives (Bruce and Jain, 1991). The Taiwan Provincial Institute of Family Planning can meet an important need by monitoring and research on this issue.

Whether the suggested ten points for improving family planning service or others are targeted for achievement, an important general policy issues cutting across all of them is the division of labor between the public and private sector in provision of services. As family planning programs mature, the shift of functions to the pri-

vate sector is an important policy alternative, with special consideration for subsidized access for the poor and disadvantaged. Indonesia, where the government has provided almost all the service, is now trying to expand the role of the private sector to minimize public costs. Taiwan is much farther ahead, since contraceptive services to clients have always been supplied mainly by a network of licensed private practitioners who have received small subsidies, training, and guidelines from the family planning program. The service has never been free for most clients.

Taiwan, once the leading model for new programs to reduce high fertility, can now take a lead in developing models relevant for the increasing number of mature programs in other countries with low fertility and strong private-sector resources. Whatever decisions are made about the division of labor between the private and public sectors, the research arm of the Institute should carry out important monitoring and research functions about both kinds of service as a basis for public health policy.

The Family Planning Institute should use its excellent survey research facilities to study the public and private sources from which different kinds of people are getting family planning and related health services and their satisfactions and dissatisfactions with those services. This could be done within the context of the continuing periodic surveys of fertility and family planning. On the basis of such research, experimental studies testing new service approaches should be done, as Taiwan has successfully done in the past. Such research could cover not only contraceptive services but also infant and child

health, prenatal and postnatal care, and other issues pertinent to improving the quality and health of children, a general objective to which we turn next.

Research and careful study should determine the proper mix of private and public family planning services. There can be a continuing role for governmental family planning clinics not only to provide services for those not adequately served by the private sector but also to test and introduce new contraceptives and to ensure the availability of the full range of family planning methods. Government hospitals may need to provide sterilization services for the indefinite future.

### **III . Improving the Quality and Health of the Children Born**

Recent special efforts to improve the quality and health of the infants born should be continued. One important aspect of the existing program is the high level of coverage in screening for genetic and other birth defects for newborn children and the health campaigns for pregnant women, especially for those aged 35 and over (Department of Health, 1990).

Other aspects of the program, particularly relevant to the health of the infants and the mothers already mentioned, include : minimizing births among very young women and among older women, spacing births at reasonable, healthy intervals, and encouraging breast-feeding. UNICEF has recently reaffirmed the importance of birth spacing and avoiding births at extremes of age in the childbearing years for minimizing infant and maternal mortality and

maximizing the health of infants and mothers.

However, with respect to concentrating births at optimum ages, Taiwan is already doing quite well as compared to the United States. In 1990 only 9 percent of Taiwan births were outside the 20-34 age range, as compared with 22 percent in the U.S. The difference results from much higher teenage birth rates in the U.S. than in Taiwan (Ministry of the Interior, 1991; U.S. Bureau of the Census, 1990).

The health and the social development of children once born depend in part on the family's social environment. How this operates in Taiwan deserves careful study. There are striking differentials in fertility differentials by the education of mothers (Table 1). These differentials are increasing. The higher the educational level of mothers, the greater the fertility decline in the decade of the 1980's. In 1980 the fertility of college-educated women was 37 percent below that of primary-educated women; by 1990 it was 60 percent below. In part, these differential rates of decline may reflect greater postpone-

ment of marriage and, therefore, of births by the better educated.

These differentials are large enough in Taiwan to make meaningful the question of whether the health and social development of infants and children is enhanced when they have better-educated mothers. There is evidence from elsewhere that the health of children is positively related to the education of mothers, but evidence on the social development of infants is less clear. However, the growing fertility differentials in Taiwan are large enough to suggest research on their effects and implications. This topic needs to be approached with care, since the love and care given to infants and children is not obviously the distinctive mark of any class, educational or otherwise. How children fare in homes differing in the educational level of mothers also depends on many other institutions in the society, but prominently on the schools. This is one of a number of instances in which the implications of demographic facts go beyond the competence of health workers alone

**Table 1 Total Fertility Rates,<sup>a)</sup> by Educational Attainment of Women, for Women in Taiwan, 1980 and 1990**

	Total fertility rates		Percent change
	1980	1990	1980-1990
Education			
College grad. or more	2022	1275	-37
Senior grad.	2016	1531	-24
Junior grad.	2514	2194	-13
Primary grad.	3201	3196	0
Total <sup>b)</sup>	2518	1810	-28

Source : Ministry of Interior, Republic of China, *Taiwan-Fukien Demographic Fact Book*, Taipei, 1980 and 1990.

a) Births counted on the basis of date of occurrence rather than date of registration.

b) Includes self-taught and illiterate.

and must involve other ministries and organizations.

Taiwan's experts on child health and development should be asked to review what is known and what research needs to be done to guide policy on this issue. For important aspects of that research the excellent survey research facilities of the Institute of Family Planning may be appropriate.

Now that the family planning program has completed its demographic mission, its services pertain mainly to the health and welfare of mothers and children, which is the mission of maternal and child health services. It is, therefore, appropriate that serious consideration

should now be given to integrating family planning with the maternal and child health services. However, it is important that in any such organizational change the administrative arrangements should ensure that family planning services continue to have a high priority.

#### IV. Issues about Taiwan's Future Fertility

Family planning programs in Taiwan and elsewhere have aimed to help families plan the number and spacing of their children in the context of the major transition from high to low fertility. The social welfare objective of helping individual couples to plan their families appro-

**Table 2** Projected Percentage Age Distributions of the Taiwan Area Population for Low, Middle, and High Fertility Assumptions

Percent of population	TFR	1989 base	Official projections		Eventual stable population	
			2010	2036		
Over 65						
Low	1.6	6	10	22	24	
Middle	2.0	6	10	21	19	
High	2.1	6	9	19	18	(16) <sup>(b)</sup>
20-29						
Low	1.6	19	15	11	11	
Middle	2.0	19	15	12	12	
High	2.1	19	14	13	13	(14) <sup>(b)</sup>
0-14						
Low	1.6	28	19	14	11	
Middle	2.0	28	20	18	18	
High	2.1	28	23	19	19	(22) <sup>(b)</sup>

a) Estimation of eventual age distributions on stable population models with fertility assumptions continuing unchanged from their level in 2036, utilizing the West-Female Model 24 from Coale and Demeny, 1966.

b) For TFR of 2.4.

privately to their situations continues to be the major responsibility. However, there now are questions about the role of the programs in situations where fertility is actually below replacement level, as in Korea, Hong Kong, Singapore, and Japan, as well as in Taiwan. The questions being raised are whether it is desirable, either sooner or later, to bring fertility up to the permanent zero-growth replacement level of 2.1, whether public policy can accomplish that goal, and what the role of a family planning program would be in developing and implementing such a policy.

We consider first what the probable course of fertility is likely to be in Taiwan in the absence of any effective government policy to change the trends and the demographic effects of those trends. Then, we will consider whether government policy to fine-tune fertility rates are likely to be effective and, if so, whether they are desirable.

For the period from now until 2036--about 44 years--we now consider the official population projections by the Manpower Planning Department of the Council for Economic Planning and Development (1991). These are based on the assumption of modest net immigration of 6,400 persons per annum, most of whom would be 20-34 years old. The projections assume a rise in life expectancy of four years for men and 10 years for women to 75 years for men and 80 for women.

The crucial variable is fertility with three assumptions--low, middle, and high. The low assumption is for fertility falling from 1.7 to 1.6. The high assumption is a gradual increase from 1.7 to 2.1 by 2000, then continuing at that re-

placement level.

In the long run, under any of the fertility assumptions, the proportion of the population over 65 will grow substantially and the proportion under 15 or in the prime young labor force entry ages of 20-29 will decline substantially. That is true even if the high fertility assumption is raised to 2.4.

Table 2 shows the official projected proportions for three selected age groups to the year 2036 and the ultimate level of these proportions if the basic assumptions were to continue indefinitely. It also shows what these ultimate proportions would be with a higher TFR of 2.4.

What all of this comes to is this: under any plausible fertility assumption, Taiwan will have to accommodate to a substantially older population and a proportionally smaller young labor force. The extent of these changes will be less if fertility is higher rather than lower, but, under any presently plausible fertility assumption, the change in age structure will be large. Population policy will not eliminate the need for social and economic policy for a Taiwan with a substantially older population--like the rest of the developed world.

The total population will continue to grow under any of the official projections, adding three or four millions to the present population of 20 million by 2010 and three to seven millions by 2036 (Table 4). Under the low fertility assumption, population stops growing and begins to decline by 2023 and, under the high assumption of 2.1, it levels off at stationary zero growth not long after 2036. These changes in population size may be less consequential than the changes in age structure, although anyone

**Table 3 Educational Attainment of Wives under 40 Years of Age, in Taiwan, by Date of Marriage**

Educational attainment	Marriage date		
	1960-64	1970-74	1980-84
	Percent distributions		
None/illiterate	32	10	1
Primary level	55	61	27
Jr. high level	7	12	27
Sr. high level	4	12	35
College/university	2	5	10
Total percent	100	100	100
No. in sample	(538)	(773)	(978)

Source : Data from KAP surveys by Taiwan Provincial Institute of Family Planning, as reported in Thornton and Lin, forthcoming.

**Table 4 Population Projections for the Taiwan Area under Three Fertility Assumptions**

	Fertility assumptions		
	Low	Medium	High
1989	20,111	20,111	20,111
2000	21,919	22,065	22,331
2010	23,205	23,720	24,531
2021	23,813	24,831	26,126
2036	23,069	25,220	27,415

Basic assumptions :

Fertility : Low-TFR declines from 1730 to 1630 in 1996 and 1600 after 2000.

Medium-TFR declines from 1730 to 1700 in 1996, then rises to 2000 by 2026.

High-TFR rises from 1730 to 1900 in 1996 and 2100 in 2000.

Mortality : Life expectancy rises :

	1989	2036
Males	71.07	75
Females	76.06	80

Migration : Assumes net international migration will continue at 6400, of whom 5000 are in the 20-34 age group.

Source : Manpower Planning Department, 1991.



caught in Taipei's congestion may not feel that increasing Taiwan's population by seven million is inconsequential.

These are the demographic consequences of the fertility assumptions. But, is the crucial assumption in the official projections that fertility will stay in the range of 1.6 to 2.1 plausible and reasonable? We believe this is a plausible set of assumptions, while recognizing that no one can be certain about fertility over a period of 44 years. Why, then, are they plausible?

1. Taiwan's total fertility rate has leveled off for the last five years at a plateau of 1.7 to 1.8 after many years of rather steady decline. The actual recent total fertility level may be as high as 2.1 if it is adjusted for births temporarily postponed, mainly because of later age at marriage and childbearing (Feeney, 1991). But, even with this adjustment, the recent experience is within the range of the official projections.<sup>2</sup>

2. With only a few minor exceptions, all of the developed countries of the world have been in the range of 1.2 to 2.1 in the last decade. As Taiwan has entered the ranks of the developed societies, similar social and economic forces are likely to act on individual family decisions to keep fertility in this range. Korea, Japan, Hong Kong, and Singapore are now all below replacement levels with fertility of 1.2 to 1.8. The United Nations projections for all these countries and for East Asia as a whole for 2025 are all within the 1.4 to 2.1 range.

3. The following considerations would tend to keep Taiwan's fertility on the low side of the range of the projected 1.6 to 2.1 :

a. The upward shift in educational distribution under way (Table 3) will produce fertility

declines unless other factors push the age-education-specific fertility rates higher.

b. In the past, Taiwan as a whole has had its fertility decline to the lower level of fertility in the cities with a lag of a few years. The fertility decline in rural areas matches that of the cities with a lag of three-seven years. In 1990 these rural-urban differentials were as follows (Ministry of the Interior, 1991) :

Cities	1.64
Urban townships	1.92
Rural townships	2.00
All Taiwan total	1.80

c. The increasing participation of married women in the labor force, even when they have young children, may further depress fertility, unless there are policies to minimize the conflict between working and rearing children. There has already been a large increase in labor force participation for married women with children.

Just between 1981 and 1989 the labor force participation rate increased from 28 to 45 percent for women with children under six and from 34 to 53 percent for women with children six to 17 years old (Social Indicators, 1989).

d. More effective use of contraception or abortion by couples who want to prevent unwanted births could also serve to reduce fertility somewhat, only partly offset by the smaller number of infertile couples who might be helped to have more children.

4. There are, however, several factors which may work against any further decline in fertility : In 1985, when last measured, the mean preferred number of children was 2.4 among married women 22-29, and 97 percent of them wanted at least two children (Chang, et al.,

1987).

There is a further floor-effect because of the continuing preference for sons even among those who prefer only two children. In 1985, among those who had two children, those who had no sons were more likely than those with no daughters to want another child and not to use contraception.

Further, unlike the populations of most developed countries, even those in Asia, Taiwan still has much more of traditional extended familial ties which are a support for somewhat higher fertility. For example, as of 1986, more than two-thirds of couples married in the preceding ten years began married life in the household of the husband's parents and a large majority of these lived with the husband's parents during the prime early childbearing years (Weinstein, et al., 1990).

There is probably further striking evidence of son-preference in the rise of the sex ratio at birth from 106 to 110 in the past decade. In 1990 the sex ratio at birth was 119 for third births and 128 for fourth and fifth births, compared to the normal expected 105. This probably results from a combination of prenatal sex determination and abortion. These new techniques may reduce the higher-fertility effect of son-preference but at the cost of unbalanced sex ratios at adult ages. In Korea, this practice had produced by 1988 a sex ratio at birth of 115 with a ratio of 170 for third births (Lee and Cho, 1991). With modern technology, very low fertility is theoretically compatible with almost everyone having a son, but the social costs of the resulting unbalanced sex ratio deserve serious consideration.

On balance, all of these considerations lead us to the view that fertility continuing in the projected range of 1.6 to 2.1 is plausible for the indefinite future in the absence of an effective intervention to make it higher.

However, candor and humility require us to say that a babyboom that would raise fertility above 2.1 to 2.4 or even higher is not out of the question, in view of the unexpected babyboom after World War II in the West. We do not now foresee conditions that will have this pronatalist effect. However, the remarkable and often unexpected political, economic, and social changes in Taiwan and in the world in the last 40 years or so suggest the fragile basis for projecting, for example, whether Taiwan's fertility will be 1.6, 2.1, or 2.4 in the next 25 or 50 years. While any of those rates means a substantially older population than now exists, even those rather small differences in fertility would mean the difference between having an older or very much older population. It would also make the difference between populations that would be declining or growing quite substantially in the long run.

These cautionary words are intended to emphasize the need for continuing monitoring of fertility trends and continuing efforts to understand their social and economic causes and consequences.

### **Should Taiwan's Goal Be Replacement-Level Fertility or Less?**

We are assuming that, if Taiwan were to set a policy goal for fertility, it would be at replacement level or somewhat less. Obviously, a much

wider range could be considered.

We assume that there is no serious advocacy of a return to really large families, as simply unacceptable to couples in a modern society, for understandable reasons. However, some might advocate a rate moderately above replacement--say at 2.4--as a means of increasing the numbers in the young labor force ages and decreasing the proportion over 65. Actually, the absolute numbers over 65 would not decrease. In fact, there would be some increase after 65 years because of higher fertility and lower mortality. But, even if the fertility rate were increased to 2.1 or 2.4, in the long run there would be a large increase in the proportion over 65 from the present 6 percent to 16-18 percent and the proportion in a young age group such as 20-29 would decline from the present 19 percent to 13-14 percent.

Choice of fertility as low as 1.6 instead of 2.1 would increase the proportion of older people even further and decrease the proportion at young ages, but it would bring zero growth sooner.

Regardless of which fertility assumption is chosen within the 1.6-2.4 range, the fundamental social and policy issue will be how to adjust to an inevitable increase in the number and proportion of older people and an inevitable decrease in the number of young adults.

Our personal choice would be to attain replacement-level fertility relatively soon and stay there, on the grounds that we know of no evidence that Taiwan needs a population larger than it will get anyway in 50 years or so with replacement-level fertility. Further, a fairly steady rate at replacement level will eliminate

the problems that come with irregularities in the age structure, which result from variations in fertility. Examples of such problems are large variations in the number of pupils in specific school grades and in the persons of labor force age or mismatches in the number of potential brides and grooms.

In the long run, zero growth is inevitable, because in the long run, on the one hand, even moderate positive growth will produce impossibly large populations. On the other hand, negative growth rates lead to older populations and eventually to no population at all. To illustrate with the low fertility of 1.6, the net reproduction rate would be about .80, which means that after 2023--only 31 years from now--population will begin to decrease by 20 percent every generation, that is, about every 27 years. Obviously, that would not be very desirable in the long run.

We believe that Taiwan will want to be at replacement-level fertility eventually. However, being at a somewhat higher or lower level for the next few decades before then is an option that can be considered, if there is a policy preference for a somewhat larger or smaller population and a somewhat younger or older population when zero growth is eventually reached.

The population situation is not a crisis. There is time for experimentation, research, and debate. Nothing catastrophic will result if fertility continues at its present levels, somewhat below replacement for the next decade. It would mean less population growth before population eventually reaches a zero-growth level, but would accelerate the aging process. There is merit in stabilizing at a lower rather than a higher popu-

lation size.

Taiwan's family planning program, like that of most other countries, has up to now aimed at replacement-level fertility. The basic justification, with which we agree, has been that, in the long run, continuing population growth is undesirable for a country as densely settled as Taiwan, because that would increase the multiplier for environmental pollution and degradation, crowding, and depletion of nonrenewable resources. Further, the argument can be made, for example, that raising fertility to increase the number in the young labor force ages is less important than improving the education and quality of the labor force, along with continuing improvement in technology and productivity, which will determine the kind and quantity of labor force needed. Alternate ways of meeting future labor force needs include more married women working, more use of older workers, labor migration from abroad, and siting Taiwan enterprises abroad. Labor force supply depends on much more than total numbers in labor force ages, especially as Taiwan becomes increasingly involved in regional and world economies.

Having spent some time on the plausible choices among fertility levels, we turn to our belief that it is unlikely that family planning or social policy can fine-tune fertility to be steadily at replacement or any other level of fertility.

### **Can Taiwan Fine-Tune Fertility Levels?**

Family planning programs, like Taiwan's, have had as their demographic objectives reducing rather than increasing fertility. The service and information provided by Taiwan's family

planning program contributed to the transition from the high fertility of a preindustrial society to the much lower fertility of a modern developed society. If the current goal were to raise fertility to replacement level, the role of the family planning program in accomplishing that would be limited. Efforts to raise fertility elsewhere have involved agencies and incentives outside of the family planning program.

However, most such explicit or implicit pronatalist programs have not been very successful. In reviewing such programs in Europe, Demeny (1986) said "...the modal finding is that the effects are nil or negligible..." Gauthier (1991, page 10), after reviewing implicit pronatalist policies in Europe, concluded that, "Studies on this topic suggest that these interventions have had a limited positive effect, although most of them being felt [sic] on the timing of birth rather than on completed family size."

East Germany apparently did raise its fertility for a time with a strong incentive program, but we do not know whether those levels could have been maintained if history had not changed the East German situation (Buttner and Lutz, 1990). Singapore has a strong pronatalist program with large cash incentives, but it is too early to evaluate its success (Cheung, 1991). An earlier Singapore effort to raise the marriage rate, especially for educated women, did not succeed.

Educational programs (through the family planning program) on family life, population, and sex have been suggested as one way of increasing fertility in Taiwan. While such a program would certainly have merit for social wel-

fare purposes, their possible effect on fertility is uncertain. We think that they could improve the quality of family life, but are skeptical that they would have much effect on fertility.

Other approaches to increasing fertility would involve family welfare policies through other agencies. For example, fertility might be increased somewhat by a family-life policy dealing with the problems of the increasing number of families with young working mothers with young children. This might include increasing the availability of adequate child care facilities, liberal family leave policies for married couples with young children, or measures to increase the possibility of residence of young couples with or near their parents. In 1988, 31 percent of employed married women reported that their first child was cared for by the child's grandparents (Directorate-General, 1989).

Taiwan's policies for dealing with the health and welfare problems of an aging population could marginally increase fertility. We have written elsewhere, in some detail, about the potential at this crucial time of transition for linking emerging health and welfare policies and institutions to traditional aspects of the Chinese family. This could soften some of the impersonal aspects of the Western system, minimize the staggering costs that the West now faces in expenditure for the elderly, and improve the quality of family life and of life in general (Freedman, 1986). It is possible that maintaining important aspects of the traditional Chinese family system might somewhat counter the forces making for lower fertility.

These last ideas are only illustrative. Our main point is that, if Taiwan wanted to increase

fertility somewhat, it would have to consider changing some of the conditions of family life which now contribute to lower fertility.

While research and experimentation on these issues of marriage and fertility are desirable, we believe that fine-tuning fertility levels within the narrow range we have been discussing is likely to be ineffective. Social interventions without powerful and costly incentives are likely to be overwhelmed by important social and economic forces, such as the increasing labor force participation of married women, the rising consumerist orientation, the costs of education and other quality-inputs for children, and the probable decline of many aspects of the traditional Chinese family.

Attempts to increase fertility also would have to counter the effect of the continuing increase in age at marriage, which also means later childbearing. For example, the percentage of women married at ages 20-24 decreased from 40 to 26 percent in the ten years between 1980 and 1990. Later childbearing decreases the rate of population growth even if the number of children per family doesn't decrease. Singapore was not successful in attempting to increase marriage rates.

Our net conclusion is that Taiwan is unlikely to be able to fine-tune fertility levels with the knowledge now available. Basic research on factors affecting fertility and social policy initiatives in developed societies may change this situation. Taiwan's future population research program could play a significant role in this direction.

## V. Understanding and Dealing with the Consequences of Prospective Demographic Trends

Increasing numbers of older people and decreasing proportions of young workers in the labor force are two demographic trends with serious consequences that Taiwan shares with all the other developed countries. Understanding and dealing with these problems must involve research, policy, and action by many different agencies in addition to family planning.

But, Taiwan's family planning program can play a part in this effort through its experience with survey research on family issues, and through its staff of experienced field workers who historically have reached a large proportion of households with family planning services.

On issues of aging, the Institute of Family Planning should continue its leading research on the needs of older citizens and the ways in which present familial and non-familial support systems do and do not meet these needs. On the action side, the family planning field workers already are screening older family members in special disadvantaged population groups for important health problems.

As with the problems of the aging, many of the problems arising from projected smaller proportions at young labor force ages go far beyond the scope of the family planning program. However, an important part of a solution to a projected labor force shortage is the entry of increasing numbers of women with young children into the labor force, as has been the case in the U.S.<sup>3</sup> For such young families in Taiwan,

this involves questions of the careful spacing of births, avoiding additional births when they have all the children they want, child care, and the sharing of household responsibilities by husbands and wives. Some of these issues do involve effective family planning. For other labor force and family issues, the research program of the Family Planning Institute could help to provide the information on family preferences and practices which other agencies need to develop policies and programs.

Discussion of policies about care for the elderly and about meeting labor force needs could properly be the subjects for separate major conferences. We have not dealt with these substantively in any detail, because we were invited to speak about the future of the family planning program. However, we do want to mention one important finding from research by the Institute for Family Planning: Despite major changes, traditional Chinese familial relationships are still important with respect to co-residence and mutual support linking the older and younger generations (Thornton and Lin, forthcoming; Hermalin, et al., 1992). As indicated elsewhere (Freedman, 1986), we believe that new social security and health programs for the elderly should take this into account. This is an important resource the West did not have.<sup>4</sup>

Japan, which is close to actual zero growth, with fertility now as low as 1.5, has recently begun a periodic research program on the preferences of its people with respect to future population growth and on alternative policies to increase fertility. Taiwan is rather ahead of Japan in its longstanding research program on fertility and family planning, and it has a much

longer time ahead before it reaches an actually declining population. It could now put more emphasis on asking questions about the broader aspects of population policy and preferences about how to increase fertility to reach replacement-level fertility if that became a policy goal. The Family Planning Institute is a logical agency to do research on these issues and to share its results with the other agencies and ministries for whom population trends and policies are of concern.

## **VI. Issues in Organizational Change for the Family Planning Program**

Having reached replacement-level fertility and almost universal use of fertility control, Taiwan needs to consider organizational changes in the area of family planning services and research appropriate to a new era. Such changes should only be made after careful study and planning to ensure that the continuing family planning needs discussed in Section I will be adequately met. It is important to have safeguards to ensure that family planning will not be slighted if it is merged with other health services. Based on the discussion in Sections I and II, we suggest the following for consideration :

1. Shifting family planning services increasingly to the private sector.
2. Integrating the remaining governmental family planning services for special populations and services with maternal and child health services, but only after careful study to ensure that family planning services will not be slighted.
3. Continuing to monitor, evaluate, and set

guidelines for family planning services, whether they are in the private or public sector.

4. Elevating the research aspects of the Taiwan Provincial Institute of Family Planning to the national level and broadening its scope to that of a National Institute for Research on Population and Health.

In the course of this talk, we have repeatedly cited important accomplishments of the research arm of the Taiwan Provincial Family Planning Institute. It has done significant work not only on fertility and family planning but also on the problems of older people and on family life issues. This important wide-ranging work on the family is evident in a major book in manuscript on the changing Taiwan family. The Institute is currently doing a basic study on the costs of medical care as one research base for a planned national health insurance program.

Has not the time come to elevate the Provincial Institute's research arm to the national level, separate from the family planning services which would be integrated into maternal and child health services? Such a research institute would continue to do research on and evaluation of fertility and family planning services, but it would also deal broadly with the whole range of population research needed not only for health but also for other government agencies concerned with such issues as care for the elderly, social security, and population projections. It should be Taiwan's national policy-oriented population and health research institute.

We have given special emphasis to the future of the research arm of the Provincial Institute because our experience and expertise are principally in that area.

### Summary

1. The future service tasks of the family planning program will be primarily in the social welfare rather than in the demographic arenas. There are still important things to be done in maintaining and improving the quality of family planning services. The emphasis in general is likely to be on the quality rather than on the quantity of population.

2. Taiwan could take the lead in developing and testing service models, including both the private and public sectors, for countries with mature programs, low fertility, and strong private sectors.

3. Taiwan's fertility is likely to be within a low fertility range, e.g., 1.6 to 2.4, for some time to come, like other developed countries. Values within this range inevitably mean substantial aging of the population, creating problems with respect to care for the elderly and the supply of entry-level labor force members.

4. While our preference is for the replacement-level fertility that is inevitable in the long run, we are skeptical that deliberate fine-tuning of the fertility level within the low-fertility range is possible on the basis of present knowledge and especially in a free society. Policies to deal with the consequences of low fertility are likely to be more important than attempts to increase fertility. However, it is important that Taiwan should have a program of research on factors affecting fertility within the low-level range that characterizes developed countries.

5. While the family planning program is relevant, the policy issues arising from the conse-

quences of low fertility will mainly be the responsibility of other agencies working together.

6. Finally, we have suggested, for serious consideration, possible organizational changes. These involve :

a. shifting some service functions to the private sector;

b. integrating other governmental family planning services with maternal and child health services;

c. elevating the research functions of the Provincial Institute of Family Planning to a national-level, broadbased Institute for Research on Population and Health.

### Notes

<sup>1</sup>These are drawn largely from Freedman (1986) and Chang (1991).

<sup>2</sup>Feeney's estimates of total fertility, based on parity progression ratios, assume that essentially all women marry. Work by Thornton, et al. (forthcoming) estimates that the proportion ever marrying has decreased to about 94 percent. The discrepancy results from differences between the census and the population register as to the marital status of women by age. Investigating these differences deserves high priority because the difference they make in estimated rates can substantially affect the factual basis for discussions of population policy. However, even assuming that Feeney's estimates are completely correct, his estimated total fertility rates based on parity progression ratios for 1986 and 1987 are 2.1. We discount Feeney's higher figure of 2.3 for 1988 as an artifact of Year of the



Dragon.

<sup>3</sup>Between 1960 and 1988, labor force participation rates in the U.S. increased from 39 to 72 percent for married women with children six to 17 and from 19 to 57 percent for women with children under six (from *Statistical Abstract of the United States* for 1988 and several earlier years).

<sup>4</sup>As Ranis (1992, p. 11) has indicated, "Thus far, Taiwan has shown that she does not intend to precipitously eradicate traditional family protective schemes, preferring costsharing and supplementing such schemes to supplanting them quickly with Scandinavian-style modern welfare legislation."

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