### 調査研究

## 特 集

# わが国出生力の動向と将来予測

#### はしがき

昭和42年度から毎年度1回主要な課題を選んで、人口問題研究所の所員全員が参加して人口問題に関する所内シンポジウムが開催されることになった。昭和45年3月11日および16日両日にわたって、人口問題研究所において、第3回の昭和44年度の所内シンポジウムが開催された。

今回のシンポジウムの課題は「わが国出生力の動向と将来予測」が選ばれた。わが国今後における人口変動の決定的要因は出生力の変動であり、出生力の低下によって、1956年以降、十数年間にわたって純再生産率は1を割ってきた。既往における出生力の動向を分析し、今後の動向を予測することは、日本の人口問題研究上、現在最も重要な課題の1つである。

シンポジウムは、わたくしがこれを司会し、次の3題の報告をめぐって多彩な討論が行なわれた。

1. わが国の出生力と出生抑制の展望

青木尚雄技官

2. わが国出生力の経済的・社会的分析

岡崎陽一技官

3. わが国将来出生力の予測方法とその問題点

濱 英彦技官

- 1 青木尚雄技官は、戦後におけるわが国出生力の変動を段階を区分して分析し、出生力低下の特徴を(1)出生児数の stereotype 化、(2)出生の早期化および(3)一括化の点から考察し、出生抑制のモーティベイションを検討し、出生抑制の方法とその効果を分析し、出生力今後の見通しを述べて、条件が与えられれば回復の潜在力をもつものとみ、すでに一部の年齢や階層においてはそのきざしがあることを指摘し、その条件としては経済開発と均衡のとれた社会開発推進の必要を結論された。
- 2 岡崎陽一技官は、第1に、わが国出生力の現段階を、欧米の人口転換の1930年代の異常な低出生段階に対応するものとみ、わが国出生力が将来回復する可能性があることを推論し、第2に、わが国の低出生力の構造的特徴を有配偶率と有配偶女子出生率との関係から分析し、有配偶女子出生率がとくに低いというのではなくて、女子の年齢別有配偶率の特殊の構造に問題があることを指摘し、第3に、一般に、出生力と経済水準との逆相関が指摘されているが、特定の段階においては両者の関係は順相関であると仮定し、この出生力関数のシフトによって上記の逆相関を説明しようという試みを提示し、第4に、出生率の将来予測のためにコウホート出生率の追跡が必要であることを提案された。

3 濱英彦技官は、将来の出生力を予測する方法として、(1)全国女子年齢別特殊出生率の時系列分析に基づく方法、(2)都道府県別女子年齢別特殊出生率の順位系列分析に基づく方法、(3)全国有配偶女子年齢別特殊出生率および女子年齢別有配偶率の時系列分析に基づく方法、(4)都道府県別有配偶女子年齢別特殊出生率および女子年齢別有配偶率の順位系列分析に基づく方法を提示し、さらに、都道府県別有配偶女子年齢別特殊出生率と人口1人当たり個人所得および産業別人口構造との相関分析を行ない、なおまた、将来出生力の仮定と方法を精密化してゆくためには、出生力と経済的社会的諸要因との相互の関連を明らかにすることが必要であるとし、人口セクターを中心とする経済社会循環モデルを構成して試論された。

今回のシンポシウムにおいては、なにぶん、課題が重要で緊切なものであったために、活気にあふれた多彩な討議が行なわれたが、そのうち、主要な論点は、(1)先進諸国における「人口転換」の過程における出生力変動の型とわが国におけるそれとの比較と位置づけ、(2)わが国出生力変動の現在の位置と意義に関する評価、(3)出生力の変動を規定する人口学的、経済学的および社会学的諸要因、(4)わが国出生力変動の将来予測に関する技術的諸問題などであって、わが国出生力の動向と将来予測について、理論的および方法論的諸問題を明らかにしたことにおいて成功であったといえる。そこで、このシンポシウムの報告をまとめて本誌の特集としたのである。

昭和45年4月1日

舘

#### Special Issue

# TRENDS AND PROSPECTS OF FERTILITY IN JAPAN

#### Foreword

The Institute of Population Problems initiated in the fiscal year 1967 a program to hold every year a symposium within the Institute on a selected major subject to be participated by all the research staff members of the Institute. The third symposium, which was for the fiscal year 1969, was held at the Institute in two sessions, one on March 11 and the other on March 16, 1970.

The theme selected for this symposium was "Trends and Prospects of Fertility in Japan". The movement of fertility is expected to be a principal determinant of population changes in future Japan. Owing to the decline of fertility, the net reproduction rate of Japan has been below unity during a period of more than ten years since 1956. It is one of the most important topics for the research of Japan's population problems to examine the past trends in fertility and forecast future fertility.

The symposium was presided by me and it developed multi-dimensional debates on the following three reports:

- 1. A general view of fertility and its regulation in Japan by Hisao Aoki
- 2. An analysis of socio-economic factors affecting fertility in Japan by Yoichi Okazaki
- 3. Approach to analyse future trends of fertility in Japan by Hidehiko Hama.
- 1. Mr. Aoki analyzed postwar fertility trends of Japan by classifying the postwar period into four phases. He pointed that the postwar fertility decline in Japan be characterized by the combination of the following three patterns: (1) a tendency of family size to be stereotyped, (2) rejuvenation of ages at childbirth, and (3) bunching of birth. He further examined the motivation of fertility control, reviewed methods of practice, and evaluate fertility control effectiveness. Referring to his prospects of future Japan's fertility, Mr. Aoki suggested the possibility of a fertility recovery under some favourable conditions, by pointing signs of rising fertility observed recently in some parts of age classes and social strata. A conclusion was made that a promotion of social development well-balanced by economic development would be required for future recovery of Japan's fertility.
- 2. Mr. Okazaki pointed, first, a correspondence of the recent phase of fertility trends in Japan to the stage of unusual low fertility experienced in the demographic transition in western world in 1930's and in view of this correspondence he suggested the possibility

of a future recovery of Japan's fertility. Secondly, he analyzed structural patterns of low fertility in recent Japan by examining relationships between the proportion of married and marital fertility of women. According to his analysis, the low level of fertility is to be attributed to a peculiar structure of the proportion of married by age rather than to the level of marital fertility of women itself. Thirdly, after referring to the generally accepted opinion on the existence of negative correlation between fertility and level of living, Mr. Okazaki suggested it possible to assume a positive correlation between the both factors as far as the respective stages of economic development are concerned, and he tried to make an unique explanation of the above-mentioned negative correlation by shifting the fertility function. Finally, he emphasized the necessity of following up cohort fertility rates for the purpose of estimating future fertility.

3. Mr. Hama mentioned the following four methods for estimating future fertility: (1) a method based on time series analysis of age-specific birth rates of women for the whole country, (2) a method based on rank order analysis of age-specific birth rates of women by prefectures, (3) a method based on time series analysis of age-specific marital birth rates of women and age-specific birth rates of women by prefectures, and (4) a method based on rank order analysis of age-specific marital birth rates of women and age-specific birth rates of women by prefectures. Then, he referred to his correlation analysis between age-specific marital birth rates of women and personal income per capita or industrial structure of population done on the basis of prefectural data. Emphasizing the necessity to clarify interrelationships between fertility and socio-economic factors for the purpose of refining assumptions and techniques in estimating future fertility, Mr. Hama discussed the problem of fertility projections basing on his newly constructed chart indicating circulating flows of economic and social factors with the population sector as its pivot.

This symposium was a success in its bringing forward various vivid discussions on the fertility problem of Japan which is of urgent importance. In summary, major points of discussion in this symposium will be as the followings: (1) a comparison between patterns of fertility trends in the "demographic transition" in western developed countries and those in Japan and an orientation of the Japan's experience of fertility in the international perspectives, (2) evaluations of the today's situation and significance of fertility trends in Japan, (3) demographic, economic and sociological factors determining trends in fertility, and (4) technical problems concerning forecasting fertility trends of Japan.

The success of this symposium was highlighted by clarifying theoretical and methodological problems regarding the past trends and forecasts of Japan's fertility. Therefore, it was decided that the reports of this symposium be published as a special issue in the present number of the Journal.

April 1, 1970