

UNIVERSITY OF MANITOBA

UNDERLYING FACTORS OF FERTILITY DECLINE IN QUEBEC

1951 - 1971

BY

OLIVER KWAN-PAK LO

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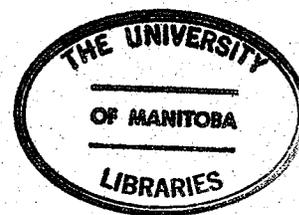
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## ABSTRACT

A sudden and rapid decline in fertility occurred in the Province of Quebec between 1951 and 1971. The question arises as to what underlying factors have affected the transition from high to low fertility. The present study is addressed to this question. The purpose of this thesis is to attempt to formulate a sociological explanation of the fertility decline in Quebec.

Past research has indicated that fertility decline is often associated with socio-economic development. In this thesis fertility is considered as a response to the structural changes in Quebec as the province undergoes the process of development. Based upon theoretical and empirical reasons five variables are selected as indicators of socio-economic development. These are: urbanization, industrialization, education, income and women in labour force. The postulated relationships between the independent variables and fertility and the causal ordering of the independent variables are stipulated in a path model. In this model Urbanization and Industrialization are assumed to be exogenous variables; Education, Income and Women in Labour Force the endogenous variables; and Fertility the dependent variable. Path analysis is used to test the model.

Two sets of cross-sectional data, taken from the 1951 and 1971 Censuses, are used in the analysis. It is found that in 1951 the independent variables, with the exception of Education, are significantly correlated with fertility. Results of the regression analysis reveal that the variables explain 45.8 per cent of the total variance in fertility. Women in Labour Force is found to have the largest negative effect on fertility. Urbanization has a positive direct effect on fertility, but the total indirect effects are found to be negative. The other independent variables have relatively less effects on fertility. The differences between the observed and estimated correlations are small, thus indicating that the model is mathematically adequate.

The same independent variables are found to be negatively correlated with fertility in 1971. However, they only explain 31.2 per cent of the total variance. Income shows the largest negative effect on fertility; and the direct influence of Education has increased. The large negative effect of WLF in 1951 has disappeared in 1971. In testing the mathematical adequacy of the model it is found that the differences between the observed and estimated correlations are very small.

The findings suggest that the relationship between fertility and development may be more complex than is conceptualized. It is tentatively suggested that longitudinal analyses of time-series change may reveal the dynamics of change and the effects on fertility in greater detail than cross-sectional analyses. The relationship between Women in the Labour Force and fertility cannot be explained by any obvious reason. It is hoped that future research will investigate this problem. The incorporation of other structural, social psychological, and intermediate variables outlined by Davis and Blake (1956) in the model is recommended for future research.

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## CHAPTER ONE

### EXPLAINING HUMAN FERTILITY

#### Introduction

Human fertility is a social fact. It is the result of a complex pattern of human behaviour. The universal link between fertility and social institutions such as marriage, the family and kinship systems, and the cultural norms and values regarding sexual behaviour and the desirable number of children, attests to the social aspect of human reproduction. The institutionalization of sexual intercourse, conception and gestation signifies the social prescription for reproductive behaviour. Moreover, an increase or a decline in fertility has a direct bearing on society in that it may cause far-reaching consequences for the population composition and the socio-economic structure. Hence, the study of human fertility is a bona fide sociological concern. It is generally agreed that

sociological questions about population processes ... conceptualize population processes as elements of the broader social system. They deal with the determinants and consequences of population processes as these represent part of the social fabric.

(Goldscheider, 1972: 27)

Accordingly, fertility can validly be examined within the social context.

Fertility can be studied either as an independent or as a dependent variable. The former approach focuses on the effects of the variations in fertility on the population composition and the socio-economic structure. More commonly in the literature, however, it is treated as a dependent variable. Trends in fertility are conceptualized as the result of various social processes. The present study takes the latter approach. The main concern here is to formulate a sociological explanation of the decline in Quebec's fertility between 1951 and 1971. An attempt will be made in this thesis to delineate a set of socio-demographic variables which are assumed to have affected the reproductive pattern in that province. To this end, this thesis will (1) glean from existing theories and models of human fertility those social determinants applicable to Quebec, and (2) subject these variables to empirical verification to see to what extent Quebec's fertility decline can be explained by them.

### Quebec's Fertility Transition

Traditionally, Quebec has had a long history of very high fertility. In recent years, however, the birth rate

dropped precipitously. A sudden and rapid decline occurred in the 1960s; and in a few years brought about a complete reversal in the fertility trend. Since the late 1960s a new tendency towards a very low birth rate emerged.

The changes in Quebec's fertility rate may be summarized as follows. It has been estimated that at the beginning of the English regime in 1770, Quebec's birth rate was 64.9 per 1,000 population, and was 45.8 per 1,000 at the time of Confederation in 1867 (Henripin, 1972: 213-231). Between the years 1871 and 1921 the birth rate showed remarkable constancy. Although the birth rate dropped to 37.6 per 1,000 in 1921, it was still very high -- then the highest, in point of fact, among all the Provinces in Canada (see Table 1). The gradual decline in Quebec's fertility continued in the 1920s and 1930s. In the same period, the birth rates in Ontario, the Prairie Provinces and British Columbia showed a similar decline. Nevertheless, Quebec's rate in 1939 (25.6 per 1,000) was higher than the rates in the other Provinces with the exception of New Brunswick and Newfoundland. From 1940 to 1947, a slight increase in fertility rate occurred in all the Provinces. Quebec's birth rate climbed to 31.1 in 1947. By this time, the birth rates in the Maritime Provinces had caught up with Quebec's; while Ontario and the Western Provinces still had a slightly lower fertility. Following the short-term

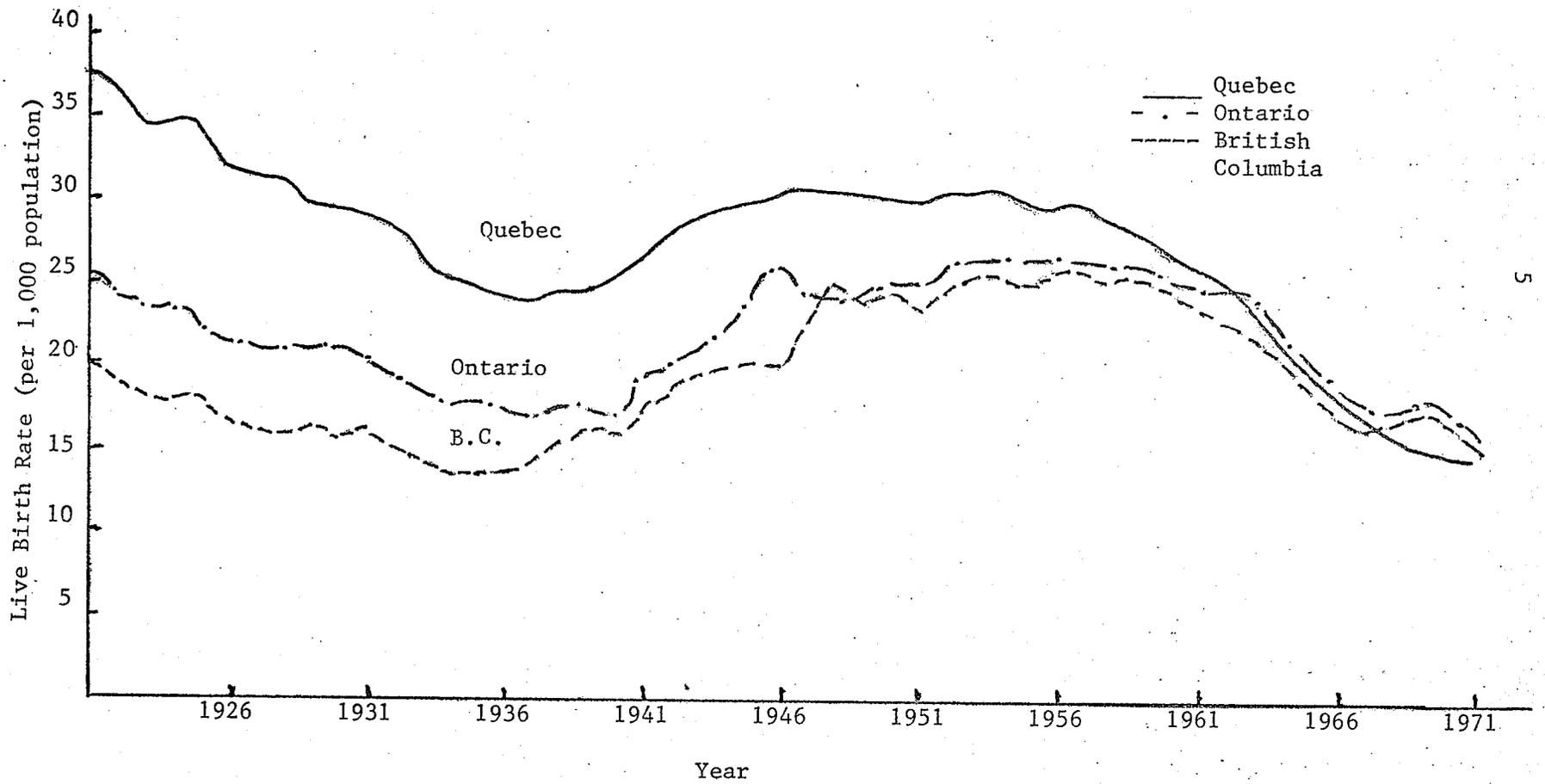
Table 1

Historical Fertility Rates for Canada and Provinces

Year - Année	Canada	Nfld. T.-N.	P.E.I. Î. P.-É.	N.S. N.-É.	N.B.	Qué.	Ont.	Man.	Sask.	Alta. Alb.	B.C. C.-B.	Yukon	N.W.T. T. N.-O.
Rate per 1,000 population - Taux pour 1,000 habitants													
921	29.3	27.2	24.3	24.9	30.2	37.6	25.3	30.3	29.7	28.1	20.3	..	..
922	28.3	27.8	24.3	24.3	29.7	36.7	24.0	28.7	29.0	27.3	18.8	..	..
923	26.7	27.8	22.7	22.5	27.5	34.2	23.3	26.6	26.9	25.4	18.0	..	..
924	26.7	25.6	21.6	22.9	27.4	34.8	23.4	24.7	27.2	24.5	17.7	7.8	11.9
925	26.1	26.0	19.5	22.1	27.9	34.3	22.5	23.5	25.5	24.8	17.6	5.5	7.1
926	24.7	27.0	20.1	21.3	26.1	31.6	21.4	22.9	25.2	23.8	16.6	6.8	9.4
927	24.3	25.5	19.5	21.6	26.3	31.3	21.0	21.7	25.0	23.5	16.2	7.3	14.0
928	24.1	24.6	20.5	21.2	25.1	30.8	20.9	21.8	24.7	23.8	16.2	7.5	24.7
929	23.5	24.2	19.0	20.8	25.3	29.4	20.5	21.0	24.3	24.7	15.7	8.8	14.8
930	23.9	23.8	19.9	22.1	25.9	29.6	21.0	20.9	24.4	24.9	16.1	11.3	25.8
931	23.2	23.3	21.3	22.6	26.5	29.1	20.2	20.5	23.1	23.6	15.0	10.0	15.7
932	22.5	24.0	22.8	22.4	26.1	28.1	19.2	20.0	22.5	23.0	14.4	11.0	19.5
933	21.0	23.4	21.6	21.3	24.0	25.9	18.1	18.8	21.8	21.5	13.4	14.5	17.9
934	20.7	23.4	21.4	21.5	24.0	25.3	17.6	18.8	21.3	21.4	13.5	11.0	20.3
935	20.5	23.0	21.8	21.7	24.3	24.6	17.6	18.8	21.0	21.2	13.6	11.6	21.0
936	20.3	25.2	21.3	21.7	24.3	24.3	17.3	18.1	20.5	20.4	14.2	7.6	20.8
937	20.1	25.0	22.5	21.1	24.2	24.1	16.9	18.0	20.2	20.5	14.9	16.6	19.2
938	20.7	24.8	21.0	22.1	25.9	24.6	17.9	18.7	19.9	20.3	16.1	15.2	20.5
939	20.6	27.5	22.6	21.1	25.2	24.7	17.3	18.7	19.9	21.0	15.6	12.6	19.5
940	21.6	26.3	22.1	22.6	25.9	25.6	18.3	20.3	21.5	22.0	17.2	16.8	20.0
941	22.4	27.3	21.6	24.1	26.8	26.8	19.1	20.3	20.6	21.7	18.4	14.4	26.3
942	23.5	28.6	23.7	25.9	27.3	28.0	20.1	21.6	21.4	23.6	19.3	19.2	30.8
943	24.2	28.3	23.9	25.4	28.3	28.6	20.7	22.7	22.1	24.6	20.0	19.8	33.6
944	24.0	29.4	25.1	25.5	29.2	29.2	19.7	22.0	21.7	24.0	20.4	27.2	26.3
945	24.3	34.9	24.5	25.1	29.3	29.3	19.7	22.4	22.7	24.7	19.9	24.6	42.6
946	27.2	36.5	29.7	29.5	34.0	30.7	23.8	25.9	25.7	27.6	22.5	18.3	37.1
947	28.9	37.5	31.8	31.3	36.4	31.1	26.1	27.6	27.9	29.9	25.2	28.0	39.1
948	27.3	33.8	30.6	28.5	34.7	30.3	24.4	25.3	25.7	28.2	24.0	34.3	40.3
949	27.3	35.6	30.1	28.2	32.8	30.1	24.3	25.5	26.0	28.2	24.5	38.6	40.3
950	27.1	37.5	30.1	27.1	32.0	30.0	24.3	25.1	25.9	28.1	23.8	39.5	38.9
951	27.2	32.5	27.1	26.6	31.2	29.8	25.0	25.7	26.1	28.8	24.1	38.0	40.6
952	27.9	33.6	27.0	27.5	31.7	30.3	25.9	26.0	26.8	29.9	24.8	43.3	40.1
953	28.1	33.4	27.1	27.6	30.9	30.2	26.3	26.3	27.5	31.0	25.4	42.6	42.3
954	28.5	34.6	27.0	26.1	30.8	30.4	26.6	27.0	28.6	31.8	25.4	42.5	37.1
955	28.2	36.3	27.8	27.8	30.4	29.5	26.5	26.7	28.2	31.5	25.4	47.6	40.7
956	28.0	35.0	26.8	27.5	29.9	29.4	26.6	25.8	27.3	31.1	25.9	40.1	41.3
957	28.2	36.1	27.0	27.6	30.3	29.7	26.8	25.9	27.2	30.7	26.1	41.2	47.4
958	27.5	34.3	25.8	26.7	28.7	28.8	26.2	24.8	26.8	30.5	25.7	36.4	47.3
959	27.4	33.6	26.9	26.5	28.3	28.3	26.3	25.6	26.8	30.5	25.5	41.3	47.1
960	26.8	33.9	26.5	26.3	27.7	26.8	26.1	25.6	26.3	30.2	25.0	38.4	49.7
961	26.1	34.1	27.1	26.3	27.7	26.1	25.3	25.3	25.9	29.2	23.7	38.1	48.6
962	25.3	32.2	26.2	26.0	27.2	25.1	24.6	24.5	25.1	28.3	23.0	36.5	45.4
963	24.6	32.4	27.3	25.3	25.9	24.4	23.9	24.0	25.2	27.4	22.1	33.3	44.7
964	23.5	30.4	25.0	24.3	25.1	23.4	23.0	22.7	24.1	25.3	20.6	34.3	46.9
965	21.3	30.2	23.1	21.9	23.0	21.2	20.9	20.7	21.6	22.5	18.7	30.6	44.1
966	19.4	28.5	20.3	20.1	20.6	19.0	19.0	18.7	19.9	20.9	17.3	25.7	40.3
967 <sup>f</sup>	18.2	25.7	18.8	18.8	19.9	17.3	17.9	17.8	18.8	20.6	16.9	25.7	41.7
968 <sup>f</sup>	17.6	25.3	19.1	18.0	18.6	16.3	17.4	17.9	19.0	19.8	16.8	24.7	43.3
969 <sup>f</sup>	17.6	25.3	18.1	17.6	18.6	16.0	17.7	18.2	18.4	19.8	17.2	28.9	39.2
970 <sup>f</sup>	17.5	24.3	17.8	18.1	18.4	15.3	17.8	18.6	17.5	20.0	17.3	26.5	40.5
971	16.8	24.5	18.8	18.1	19.2	14.8	16.9	18.2	17.3	18.8	16.0	27.5	37.0
972	15.9	24.2	17.8	17.0	18.4	13.8	16.0	17.6	16.9	17.7	15.4	22.9	34.4

Adapted from Statistics Canada, Vital Statistics 1972 vol. 1  
(Catologue 84-204), Table 5, p.

Figure 1  
Live Birth Rate (per 1,000 population)  
For Quebec, Ontario and British Columbia  
1921 to 1971



increase from 1940-41, fertility in Quebec declined again. However, the drop was not at all rapid. The birth rate in 1948 was 30.3 per 1,000. It remained almost constant up to 1959. Fertility rates in Ontario and British Columbia, on the other hand, increased slightly in the years 1950 to 1957. During this time Ontario's rate rose from 24.3 to 26.8, and British Columbia's rate also increased from 23.8 to 26.1. The continued decline in Quebec, coupled with the slight increase in Ontario and British Columbia, resulted in a reduction in the fertility differential among these provinces. In fact, the birth rates in these provinces showed a strong tendency towards convergence in the late 1950s.

From 1960 on there were indications of a dramatic fertility decline in Quebec. The birth rate dropped from 26.8 per 1,000 in 1960 to 21.2 per 1,000 in 1965. The corresponding rates for Ontario and British Columbia in 1965 were 20.7 and 18.7 respectively. Thus, the three provinces' fertility converged in the mid-1960s. Quebec's rate continued to plunge in the next few years. In short, the decline in the 1960s accelerated to such an extent that in 1968 Quebec's rate of 16.3 per 1,000 was the lowest in Canada! In 1971 a record low of 14.8 per 1,000 was reported. Thus, within ten years (1961 to 1971) the birth rate dropped by 11.3 per 1,000.

Viewed from the perspective of population replacement, Quebec's fertility trend in the 1960s was alarming. If the decline continues at that rate, Quebec's fertility level would drop below the replacement level in the 1970s. In that sense, the fertility trend in the 1960s constitutes what may justly be called a "fertility crisis".

This fertility crisis has caused great concern among French-Canadian social scientists (e.g. The Council on French Life in America, 1967; Henripin et Peron, 1973) and the Quebec government. It is important to note that low fertility is not simply a demographic phenomenon, or, for that matter, an academic problem: it has serious implications for the social, economic, and political future of a community. As Quebec is the largest French-speaking community in Canada, a low birth rate is bound to affect the entire French-Canadian population. It is probable that the fertility crisis may yet persist in the 1970s. The demographic projections are disquieting. The Council on French Life sounded alarm when it warned that, in so far as Quebec's population is concerned,

If this decline were to continue at its present rate, natural growth would reach a stalemate by 1975 and the population would quickly go down as a result. One would have to foresee a catastrophic decrease in the French-speaking community in Quebec by the year 2,000, assimilation combining with the demographic decline.

(The Council on French Life, 1967: 7)

Should the trend continue, the question will arise as to the future of French Canada, and what would become of the "French fact" in the socio-political fabric of Canadian dualism. According to some French-Canadian social scientists:

Entre 1959 et 1971, l'indice synthétique de fécondité est passé de 3,93 à 1,89 enfants. Et l'on se demande où cela va s'arrêter. Cette inquiétude n'est pas sans fondement: depuis deux siècles, les Canadiens français n'ont pu maintenir leur importance démographique, face aux vagues d'immigrants dont la grande majorité anglicisaient, que grâce à leur forte fécondité. Et l'affaiblissement de cette dernière est considéré par plusieurs comme une menace à la survie de la communauté francophone québécoise.

(Henripin et Peron, 1973: 115-116)

From the French-Canadian point of view, the present fertility crisis in Quebec has very grave consequences in that it upsets the two-century-old demographic balance and threatens the survival of the French-speaking community in Quebec. Whether or not Quebec's French-speaking community would survive remains, of course, to be seen. Nevertheless, there is no denying that, in all likelihood, a reduction in Quebec's French-speaking population would further complicate what to English Canada is already a "French Canadian question". Much has already been said of the anglicization of French life and the encroachment of bilingualism (Royal Commission on Bilingualism and Biculturalism, 1968). But the question is not merely a matter of bilingualism or a cultural crisis. It is also a problem of demographic, social, economic and political imbalance (Milner and Milner, 1973; Porter, 1965; Rioux, 1971; Royal Commission on Bilingualism and Biculturalism, 1968). In view of the

impending reduction of the French-speaking population, it is arguable whether governmental policies to bolster bilingualism would or could redress the imbalance. While a federal-sponsored promotion of the French language outside of Quebec, or Quebec's own Bill Twenty-two, or, for that matter, a revision of the immigration policy, may be seen as possible means of reasserting the French element in Canadian society, the effectiveness of such policies is nonetheless debatable. Henripin and Peron raised precisely the same question: "... La communauté francophone peut-elle espérer une modification des transferts linguistiques comme substitut à sur-natalité parsée". (Henripin et Peron, op. cit., 116). The fertility crisis, then, presents a formidable challenge to Quebec's --and, one might add, French Canada's-- equal partnership role in the Canadian federation. It is, moreover, a problem that must be reckoned with. The Council on French Life was well aware of the seriousness of the situation, and was forced to conclude that because of the fertility decline French Canada is losing the demographic battle. As to the future of the French culture, the Council suggested that:

We have the choice of three remedies: to make French culture the dominant culture in Quebec as it was between 1760 and 1850; to favour immigration which would be of benefit to [the French] group; above all to adopt energetic measures so that the birth rate of French Canadian women will increase to the level of the 1950s. We must point out immediately that the first two remedies would have no effect and would be

well nigh impossible unless the third were put into successful operation.

(The Council, op. cit., 11)

In saying this, the Council correctly pinpointed the core of the problem. It will perhaps be agreed that neither a dominance of the French culture in Quebec nor a policy favouring immigration of French-speaking people would remedy the situation if the fertility crisis persists in Quebec. Certainly, from the perspective of policy-making, to "adopt energetic measures" to induce an increase in fertility among French Canadian women has much to recommend it. The question is how this is to be accomplished. A policy of such nature would be equally ineffective if an answer to this question is lacking. To speak of a social policy on the inducement of fertility is to acknowledge implicitly that fertility is a social fact which is affected by other social factors. It is therefore necessary to understand the causal relationship between fertility and the other social factors before the means of inducement can be formulated. If the goal is to restore fertility to the level of the 1950s, it may be illuminating to ask why fertility has declined since the 1950s in the first place. Quite clearly, there is much to be gained from the analysis of this decline.

It would seem, then, that the recent fertility crisis in Quebec not only directs the research problem back to that of the social causation of fertility decline, but also illustrates the relevance and importance of such an analysis. Once again, the question to be answered is what social factors have contributed to the decline of fertility in Quebec.

In attempting to study the case in Quebec, it is necessary to review some existing explanations of fertility. The purpose of this review is twofold. It is, first, to evaluate the degree to which these theories can be relied upon as a valid explanation of fertility decline in general; and, secondly, to utilize them as a guideline for the delineation of the most plausible variables relevant to Quebec's social conditions in particular. A review of the empirical studies investigating the relationship between selected variables and reproductive patterns is also important for the same reason. The review of literature is presented below.

### Review of Selected Theories and Studies of Fertility

#### I. The Theory of Demographic Transition

Past research on the demographic experience of the West provides a convenient point of departure. That there has

been a secular decline in the birth rates among most nations in the West is a well-known fact. A sizeable body of research has attempted to provide an ex post facto explanation of this decline. The theory of demographic transition (Thompson, 1929, 1944; Notestein, 1945) is perhaps the most cogent sociological exposition among the pioneering works. The principal thesis of the demographic transition theory may be summarized as follows. Economic development, embracing such processes as industrialization, urbanization, and continually rising levels of living, affects demographic trends considerably, resulting initially in a marked decline in mortality which is followed, after a time lag, by a decline in fertility. The theory postulates that the transition occurs in successive stages. In the stage of "high growth potential", mortality is high and variable, and its decline is considered the chief determinant of population growth; whereas fertility is high and shows no evidence of decline. The stage of "transitional growth" is marked by high birth and death rates; but the decline of death rates is being established. In the stage of "incipient decline", the fertility of the population falls below, or is rapidly approaching, the replacement level. These transitional stages correspond to the process of modernization or socio-economic development. Pre-industrial societies typically have high